ELI LILLY AND COMPANY

2018 FINANCIAL REPORT

NOTICE OF 2019 ANNUAL MEETING

PROXY STATEMENT

2018 Financial Highlights

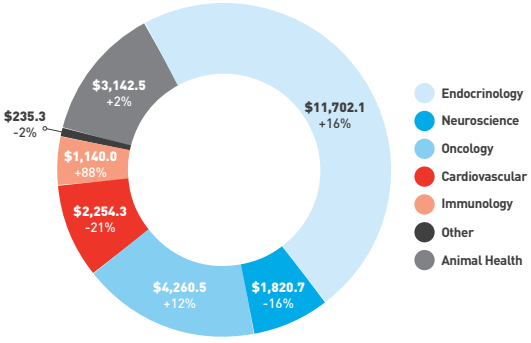
ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions, except per-share data)	2018 Year ended December 31	2017	CHANGE %
REVENUE	**$ 24,555.7**	$ 22,871.3	7%
RESEARCH AND DEVELOPMENT	**5,307.1**	5,357.3	-1%
RESEARCH AND DEVELOPMENT AS A PERCENT OF REVENUE	**21.6%**	23.4%	
NET INCOME (LOSS)	**$ 3,232.0**	$ (204.1)	NM
EARNINGS (LOSS) PER SHARE—DILUTED	**3.13**	(0.19)	NM
RECONCILING ITEMS:			
Acquired in-process research and development[1]	**1.83**	0.97	
Amortization of intangible assets	**0.43**	0.44	
Asset impairment, restructuring, and other special charges[1]	**0.41**	1.23	
Other, net	**0.01**	0.03	
Income Taxes[2]	**(0.25)**	1.81	
NON-GAAP EARNINGS PER SHARE—DILUTED[3]	**5.55**	4.28	30%
DIVIDENDS PAID PER SHARE	**2.25**	2.08	
CAPITAL EXPENDITURES	**1,210.6**	1,076.8	12%
EMPLOYEES	**38,680**	40,655	(5%)

1. For more information on these reconciling items, see the Financial Results section of the Executive Overview in Management's Discussion and Analysis. 2. Relates to adjustments for U.S. tax reform (2018 and 2017) and tax expense associated with the separation of the Elanco animal health business (2018). 3. Numbers may not add due to rounding.

REVENUE GROWTH ACROSS THERAPEUTIC AREAS

($ millions, percent growth)

Revenue in Endocrinology increased 16 percent primarily driven by growth of Trulicity, Basaglar, and Jardiance. Taltz drove the 88 percent revenue increase in Immunology. Oncology revenue increased 12 percent due to Verzenio launch in the US. Neuroscience experienced a 16 percent decrease due to lower volumes for Strattera, Cymbalta, and Zyprexa, and Cardiovascular decreased 21 percent driven by lower volumes for Cialis and Effient, all due to patent losses.

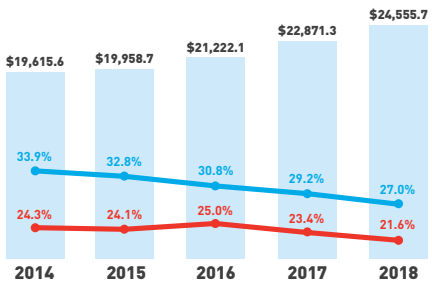


OPERATING EXPENSES

($ millions, percent of revenue)

Revenue R&D Marketing, Selling & Administrative

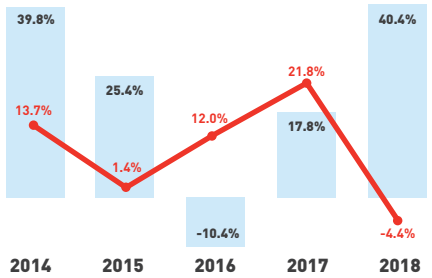
Over the past five years, Lilly has maintained relatively flat operating expenses while growing revenue, resulting in consistent improvement in operating expense as a percent of revenue.



TOTAL SHAREHOLDER RETURN

Lilly S&P 500

Over the past five years, Lilly's annualized total shareholder return has averaged 21 percent, compared to 8.5 percent for the S&P benchmark, due to the increase in the stock price and steady dividend stream.



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Forward-Looking Statements

This Annual Report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 (Exchange Act), and the Private Securities Litigation Reform Act of 1995. Forward-looking statements include all statements that do not relate solely to historical or current facts, and can generally be identified by the use of words such as "may," "believe," "will," "expect," "project," "estimate," "intend," "anticipate," "plan," "continue," or similar expressions.

In particular, information appearing under "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" includes forward-looking statements. Forward-looking statements inherently involve many risks and uncertainties that could cause actual results to differ materially from those projected in these statements. Where, in any forward-looking statement, we express an expectation or belief as to future results or events, it is based on management's current plans and expectations, expressed in good faith and believed to have a reasonable basis. However, we can give no assurance that any such expectation or belief will result or will be achieved or accomplished. The following include some but not all of the factors that could cause actual results or events to differ materially from those anticipated:

- uncertainties in the pharmaceutical research and development process, including with respect to the timing of anticipated regulatory approvals and launches of new products;
- market uptake of recently launched products;
- competitive developments affecting current products and our pipeline;
- the expiration of intellectual property protection for certain of our products;
- our ability to protect and enforce patents and other intellectual property;
- the impact of actions of governmental and private payers affecting pricing of, reimbursement for, and access to pharmaceuticals;
- regulatory compliance problems or government investigations;
- regulatory actions regarding currently marketed products;
- unexpected safety or efficacy concerns associated with our products;
- issues with product supply stemming from manufacturing difficulties or disruptions;
- regulatory changes or other developments;
- changes in patent law or regulations related to data-package exclusivity;
- litigation involving past, current, or future products as we are largely self-insured;
- unauthorized disclosure, misappropriation, or compromise of trade secrets or other confidential data stored in our information systems, networks, and facilities, or those of third parties with whom we share our data;
- changes in tax law, including the impact of tax reform legislation enacted in December 2017 and related guidance;
- changes in foreign currency exchange rates, interest rates, and inflation;
- asset impairments and restructuring charges;
- changes in accounting standards promulgated by the Financial Accounting Standards Board and the Securities and Exchange Commission;
- acquisitions and business development transactions and related integration costs;
- information technology system inadequacies or operating failures;
- reliance on third-party relationships and outsourcing arrangements;
- the impact of global macroeconomic conditions; and
- uncertainties and risks related to timing and potential value to both Elanco and Lilly of the planned separation of the Elanco animal health business, including business, industry, and market risks, as well as risks involving the anticipated tax-free nature of the separation.

Investors should not place undue reliance on forward-looking statements. You should carefully read the factors described in the "Risk Factors" section of this Annual Report for a description of certain risks that could, among other things, cause our actual results to differ from these forward-looking statements.

All forward-looking statements speak only as of the date of this report and are expressly qualified in their entirety by the cautionary statements included in this report. Except as is required by law, we expressly disclaim any obligation to publicly release any revisions to forward-looking statements to reflect events after the date of this report.

Business

Eli Lilly and Company (the "company" or "registrant" or "Lilly") was incorporated in 1901 in Indiana to succeed to the drug manufacturing business founded in Indianapolis, Indiana, in 1876 by Colonel Eli Lilly. We discover, develop, manufacture, and market products in two business segments—human pharmaceutical products and animal health products.

The mission of our human pharmaceutical business is to make medicines that help people live longer, healthier, more active lives. Our vision is to make a significant contribution to humanity by improving global health in the 21st century. Most of the products we sell today were discovered or developed by our own scientists, and our success depends to a great extent on our ability to continue to discover or acquire, develop, and bring to market innovative new medicines.

Our animal health business, Elanco Animal Health Incorporated (Elanco), develops, manufactures, and markets products for both food animals and companion animals. Elanco food animal products help the food industry produce an abundant supply of safe, nutritious, and affordable food. Elanco companion animal products help pets live longer, healthier, happier lives.

In September 2018 Elanco completed an initial public offering of its common stock, which trades on the New York Stock Exchange under the symbol "ELAN." In February 2019, Elanco filed a registration statement to launch an exchange offer in which shareholders can exchange shares of Lilly common stock for Elanco common stock. For more information on the exchange offer, see "Management's Discussion and Analysis - Results of Operations - Executive Overview - Other Matters - Elanco Animal Health."

We manufacture and distribute our products through facilities in the United States (U.S.), Puerto Rico, and 13 other countries. Our products are sold in approximately 125 countries.

Human Pharmaceutical Products

Our human pharmaceutical products include:

Cardiovascular products, including:

- *Cialis®,* for the treatment of erectile dysfunction and benign prostatic hyperplasia
- *Effient®*, for the reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with acute coronary syndrome who are managed with an artery-opening procedure known as percutaneous coronary intervention, including patients undergoing angioplasty, atherectomy, or stent placement

Endocrinology products, including:

- *Basaglar®* (insulin glargine injection), a long-acting human insulin analog for the treatment of diabetes (launched in Japan and Europe under the trade name Abasaglar™)
- *Evista®,* for the prevention and treatment of osteoporosis in postmenopausal women and for the reduction of the risk of invasive breast cancer in postmenopausal women with osteoporosis and postmenopausal women at high risk for invasive breast cancer
- *Forteo®,* for the treatment of osteoporosis in postmenopausal women and men at high risk for fracture and for glucocorticoid-induced osteoporosis in men and postmenopausal women
- *Glyxambi®*, a combination tablet of linagliptin (Trajenta®) and empagliflozin (Jardiance®) for the treatment of type 2 diabetes
- *Humalog®*, *Humalog Mix 75/25, Humalog U-100, Humalog U-200* and *Humalog Mix 50/50*, insulin analogs for the treatment of diabetes
- *Humatrope®,* for the treatment of human growth hormone deficiency and certain pediatric growth conditions
- *Humulin®, Humulin 70/30, Humulin N, Humulin R, and Humulin U-500,* human insulins of recombinant DNA origin for the treatment of diabetes
- *Jardiance*, for the treatment of type 2 diabetes and to reduce the risk of cardiovascular death in adult patients with type 2 diabetes and established cardiovascular disease

- *Jentadueto® and Jentadueto XR,* a combination of linagliptin and metformin hydrochloride for use in the treatment of type 2 diabetes
- *Synjardy® and Synjardy XR*, a combination tablet of empagliflozin and metformin hydrochloride for the treatment of type 2 diabetes
- *Trajenta,* for the treatment of type 2 diabetes
- *Trulicity®*, for the treatment of type 2 diabetes

Immunology products, including:

- *Olumiant®,* for the treatment of adults with moderately-to-severely active rheumatoid arthritis (approved in the European Union (EU) and Japan in 2017, and in the U.S. in 2018)
- *Taltz®*, for the treatment of moderate-to-severe plaque psoriasis (approved in the U.S. and EU in 2016) and active psoriatic arthritis (approved in Japan in 2016, in the U.S. in 2017, and in the EU in 2018)

Neuroscience products, including:

- *Amyvid®*, a radioactive diagnostic agent for positron emission tomography (PET) imaging of beta-amyloid neuritic plaques in the brains of adult patients with cognitive impairment who are being evaluated for Alzheimer's disease and other causes of cognitive decline
- *Cymbalta®*, for the treatment of major depressive disorder, diabetic peripheral neuropathic pain, generalized anxiety disorder, fibromyalgia, and chronic musculoskeletal pain due to chronic low back pain or chronic pain due to osteoarthritis
- *Emgality®*, a once-monthly subcutaneously injected calcitonin gene-related peptide (CGRP) antibody for the treatment of migraine prevention (approved in the U.S. and EU in 2018).
- *Prozac®,* for the treatment of major depressive disorder, obsessive-compulsive disorder, bulimia nervosa, and panic disorder
- *Strattera®,* for the treatment of attention-deficit hyperactivity disorder
- *Zyprexa®,* for the treatment of schizophrenia, acute mixed or manic episodes associated with bipolar I disorder, and bipolar maintenance

Oncology products, including:

- *Alimta®,* for the first-line treatment, in combination with another agent, of advanced non-small cell lung cancer (NSCLC) for patients with non-squamous cell histology; for the second-line treatment of advanced non-squamous NSCLC; as monotherapy for the maintenance treatment of advanced non-squamous NSCLC in patients whose disease has not progressed immediately following chemotherapy treatment; and in combination with another agent, for the treatment of malignant pleural mesothelioma
- *Cyramza®,* for the treatment of various cancers, with approvals as follows:
    - as a single agent and in combination with another agent as a second-line treatment of advanced or metastatic gastric cancer
    - in combination with another agent as a second-line treatment of metastatic NSCLC
    - as a second-line treatment of metastatic colorectal cancer
- *Erbitux®,* indicated both as a single agent and in combination with another chemotherapy agent for the treatment of certain types of colorectal cancers; and as a single agent, in combination with chemotherapy, or in combination with radiation therapy for the treatment of certain types of head and neck cancers
- *Gemzar®,* for the treatment of pancreatic cancer; in combination with other agents, for the treatment of metastatic breast cancer, NSCLC, and advanced or recurrent ovarian cancer; and in the EU for the treatment of bladder cancer
- *Lartruvo®*, approved in the U.S., and conditionally approved in the EU, in 2016 for use in combination with another agent for the treatment of soft tissue carcinoma. Following a negative result in a recent clinical trial, we are suspending promotion of Lartruvo and are working with global regulators to determine the appropriate next steps.

- *Portrazza*®, approved in the U.S. for use in combination with other agents as a first-line treatment of metastatic squamous NSCLC, and approved in the EU for use in combination with other agents as a first-line treatment for epidermal growth factor receptor expressing squamous NSCLC
- *Verzenio*®, approved in 2017 in the U.S. for use as a single agent and in combination with endocrine therapy for the treatment of a certain type of metastatic breast cancer

Animal Health Products

Our products for food animals include:

- *Clynav*™, a vaccine to control pancreas disease in salmon
- *Coban*®, *Maxiban*®, and *Monteban*®, anticoccidial agents for use in poultry
- *Denagard*®, an antibiotic for the control and treatment of respiratory and enteric diseases in swine and poultry
- *Imvixa*™, to prevent and control infestation caused by sea lice in salmon
- *Optaflexx*® and *Paylean*®, leanness and performance enhancers for cattle and swine, respectively
- *Rumensin*®, a cattle feed additive that improves feed efficiency and growth and also controls and prevents coccidiosis
- *Tylan*®, an antibiotic used to control certain diseases in cattle, swine, and poultry

Our products for companion animals include:

- *Comfortis*®, a chewable tablet that kills fleas and prevents flea infestations on dogs
- *Credelio*®, a monthly chewable tablet for dogs that kills fleas, treats flea infestations, and treats and controls tick infestations
- Feline, canine, and rabies vaccines including: *Duramune*® and *Ultra Duramune*®, *Duramune Lyme*®, *Bronchi-Shield*®, *Fel-O-Vax*®, *ULTRA*™ *Fel-O-Vax*®, and *Fel-O-Guard*®, and *Rabvac*®
- *Galliprant*®, an anti-inflammatory tablet that targets the key receptor associated with canine osteoarthritis pain
- *Interceptor*® *Plus*, a monthly chewable tablet that prevents heartworm disease and treats and controls adult hookworm, roundworm, whipworm, and tapeworm in dogs
- *Osurnia*®, to treat otitis externa in dogs caused by certain strains of bacteria and yeast
- *Trifexis*®, a monthly chewable tablet for dogs that kills fleas, prevents flea infestations, prevents heartworm disease, and controls intestinal parasite infections

Marketing

We sell most of our products worldwide. We adapt our marketing methods and product emphasis in various countries to meet local customer needs.

Human Pharmaceuticals—U.S.

In the U.S., most of our pharmaceutical products are distributed through wholesalers that serve pharmacies, physicians and other health care professionals, and hospitals. In 2018, 2017, and 2016, three wholesale distributors in the U.S. - McKesson Corporation, AmerisourceBergen Corporation, and Cardinal Health, Inc. - each accounted for between 11 percent and 18 percent of our consolidated total revenue. No other distributor accounted for more than 10 percent of our consolidated total revenue in any of those years.

We promote our major human pharmaceutical products in the U.S. through sales representatives who call upon physicians and other health care professionals. We also promote to healthcare providers in medical journals and on-line health care channels, distribute literature and samples of certain products to physicians, and exhibit at medical meetings. In addition, we advertise certain products directly to consumers in the U.S., and we maintain websites with information about our major products. We supplement our employee sales force with contract sales organizations to leverage our own resources.

We maintain special business groups to service wholesalers, pharmacy benefit managers, managed care organizations, group purchasing organizations, government and long-term care institutions, hospitals, and certain retail pharmacies. We enter into arrangements with these organizations providing for discounts or rebates on our products.

Human Pharmaceuticals—Outside the U.S.

Outside the U.S, we promote our human pharmaceutical products to healthcare providers primarily through sales representatives and on-line health care channels. While the products marketed vary from country to country, endocrinology products constitute the largest single group in consolidated revenue. Distribution patterns vary from country to country. In most countries in which we operate, we maintain our own sales organizations, but in some smaller countries we market our products through independent distributors.

Human Pharmaceutical Marketing Collaborations

Certain of our human pharmaceutical products are marketed in arrangements with other pharmaceutical companies, including the following:

- We and Boehringer Ingelheim have a diabetes alliance under which we jointly develop and commercialize Trajenta, Jentadueto, Jardiance, Glyxambi, Synjardy, and Basaglar in major markets.
- Outside the U.S. and Canada, Erbitux is commercialized by Merck KGaA.
- We and Daiichi Sankyo Co., Ltd. (Daiichi Sankyo) co-promote Effient in the U.S., Brazil, Mexico, and certain other countries. Effective January 2016, Daiichi Sankyo has been exclusively promoting Effient in major European markets; however, the economic results for these countries continue to be shared. We retain sole marketing rights in Canada, Australia, Russia, and certain other countries. Daiichi Sankyo retains sole marketing rights in Japan and certain other countries.

For additional information, see "Financial Statements and Supplementary Data - Note 4, Collaborations and Other Arrangements."

Animal Health Products

Our Elanco animal health business unit employs field salespeople throughout the U.S. and has an extensive sales force outside the U.S. Elanco sells its products primarily to wholesale distributors, and promotes its products primarily to producers and veterinarians for food animal products and to veterinarians for companion animal products. Elanco also advertises certain companion animal products directly to pet owners in markets where it is consistent with allowable promotional practices.

Competition

Our human pharmaceutical products compete globally with products of many other companies in highly competitive markets. Our animal health products compete globally with products of animal health care companies as well as pharmaceutical, chemical, and other companies that operate animal health businesses.

Important competitive factors for both human pharmaceutical and animal health products include effectiveness, safety, and ease of use; price and demonstrated cost-effectiveness; marketing effectiveness; and research and development of new products, processes, and uses. Most new products that we introduce must compete with other branded or generic products already on the market or products that are later developed by competitors. If competitors introduce new products or delivery systems with therapeutic or cost advantages, our products can be subject to decreased sales, progressive price reductions, or both.

We believe our long-term competitive success depends upon discovering and developing (either alone or in collaboration with others) or acquiring innovative, cost-effective human pharmaceutical and animal health products that provide improved outcomes and deliver value to payers, and continuously improving the productivity of our operations in a highly competitive environment. There can be no assurance that our efforts will result in commercially successful products, and it is possible that our products will be, or become, uncompetitive from time to time as a result of products developed by our competitors.

Generic Pharmaceuticals

One of the biggest competitive challenges we face is from generic pharmaceuticals. In the U.S. and the EU, the regulatory approval process for human pharmaceuticals (other than biological products (biologics)) exempts

generics from costly and time-consuming clinical trials to demonstrate their safety and efficacy, allowing generic manufacturers to rely on the safety and efficacy of the innovator product. Therefore, generic manufacturers generally invest far less than we do in research and development and can price their products much lower than our branded products. Accordingly, when a branded non-biologic human pharmaceutical loses its market exclusivity, it normally faces intense price competition from generic forms of the product. Public and private payers typically encourage the use of generics as alternatives to brand-name drugs in their healthcare programs. Laws in the U.S. generally allow, and in many cases require, pharmacists to substitute generic drugs that have been rated under government procedures to be essentially equivalent to a brand-name drug. Where substitution is mandatory, it must be made unless the prescribing physician expressly forbids it. In many countries outside the U.S., intellectual property protection is weak, and we must compete with generic or counterfeit versions of our products. Many of our animal health products also compete with generics.

Biosimilars

Several of our current products, including Cyramza, Erbitux, Trulicity, Taltz, and Emgality and many of the new molecular entities (NMEs) in our research pipeline are biologics. Competition for Lilly's biologics may be affected by the approval of follow-on biologics, also known as biosimilars. A biosimilar is a subsequent version of an approved innovator biologic that, due to its functional and structural similarity to the innovator biologic, is approved based on an abbreviated data package that relies in part on the full testing required of the innovator biologic. Globally, most governments have developed regulatory pathways to approve biosimilars as alternatives to innovator-developed biologics, but the patent and regulatory exclusivity for the existing innovator biologic must expire in a given market before biosimilars may enter that market. The extent to which a biosimilar, once approved, will be substituted for the innovator biologic in a way that is similar to traditional generic substitution for non-biologic products, is not yet entirely clear, and will depend on a number of regulatory and marketplace factors that are still developing.

Biosimilars may present both competitive challenges and opportunities. For example, a competitor company has developed a version of insulin lispro which competes with our product Humalog. On the other hand, with our partner Boehringer Ingelheim, we developed Basaglar, a new insulin glargine product, which has the same amino acid sequence as the product currently marketed by a competitor and has launched as a follow-on biologic in the U.S., and as a biosimilar in the EU and Japan.

U.S. Private Sector Dynamics

In the U.S. private sector, consolidation and integration among healthcare providers is also a major factor in the competitive marketplace for human pharmaceuticals. Health plans and pharmacy benefit managers have been consolidating into fewer, larger entities, thus enhancing their purchasing strength and importance. For example, in 2018 CVS Health, a large pharmacy benefit manager and pharmacy chain, acquired Aetna, a large national insurer, and Cigna Corporation acquired Express Scripts in a similar transaction.

Payers typically maintain formularies which specify coverage (the conditions under which drugs are included on a plan's formulary) and reimbursement (the associated out-of-pocket cost to the consumer). Formulary placement can lead to reduced usage of a drug for the relevant patient population due to coverage restrictions, such as prior authorizations and formulary exclusions, or due to reimbursement limitations which result in higher consumer out-of-pocket cost, such as non-preferred co-pay tiers, increased co-insurance levels, and higher deductibles. Consequently, pharmaceutical companies compete for formulary placement not only on the basis of product attributes such as efficacy, safety profile, or patient ease of use, but also by providing rebates. Value-based agreements, where pricing is based on achievement, or not, of specified outcomes, are another tool which may be utilized between payers and pharmaceutical companies as formulary placement and pricing are negotiated. Price is an increasingly important factor in formulary decisions, particularly in treatment areas in which the payer has taken the position that multiple branded products are therapeutically comparable. These downward pricing pressures could continue to negatively affect our future consolidated results of operations.

Patents, Trademarks, and Other Intellectual Property Rights

Overview

Intellectual property protection is critical to our ability to successfully commercialize our life sciences innovations and invest in the search for new medicines. We own, have applied for, or are licensed under, a large number of patents in the U.S. and many other countries relating to products, product uses, formulations, and manufacturing processes. In addition, as discussed below, for some products we have additional effective intellectual property protection in the form of data protection under pharmaceutical regulatory laws.

The patent protection anticipated to be of most relevance to human pharmaceuticals is provided by national patents claiming the active ingredient (the compound patent), particularly those in major markets such as the U.S., various European countries, and Japan. These patents may be issued based upon the filing of international patent applications, usually filed under the Patent Cooperation Treaty (PCT). Patent applications covering the compounds are generally filed during the Discovery Research Phase of the drug discovery process, which is described in the "Research and Development" section below. In general, national patents in each relevant country are available for a period of 20 years from the filing date of the PCT application, which is often years prior to the launch of a commercial product. Further patent term adjustments and restorations may extend the original patent term:

- Patent term adjustment is a statutory right available to all U.S. patent applicants to provide relief in the event that a patent grant is delayed during examination by the United States Patent and Trademark Office (USPTO).
- Patent term restoration is a statutory right provided to U.S. patent holders that claim inventions subject to review by the U.S. Food and Drug Administration (FDA). To make up for a portion of the time invested in clinical trials and the FDA review process, a single patent for a human pharmaceutical product may be eligible for patent term restoration. Patent term restoration is limited by a formula and cannot be calculated until product approval due to uncertainty about the duration of clinical trials and the time it takes the FDA to review an application. There is a five-year cap on any restoration, and no patent may be extended for more than 14 years beyond FDA approval. Some countries outside the U.S. also offer forms of patent term restoration. For example, Supplementary Protection Certificates are sometimes available to extend the life of a European patent up to an additional five years. Similarly, in Japan, South Korea, and Australia, patent terms can be extended up to five years, depending on the length of regulatory review and other factors.

Loss of effective patent protection for human pharmaceuticals typically results in the loss of effective market exclusivity for the product, which often results in severe and rapid decline in revenues for the product. However, in some cases the innovator company may be protected from approval of generic or other follow-on versions of a new medicine beyond the expiration of the compound patent through manufacturing trade secrets, later-expiring patents on manufacturing processes, methods of use or formulations, or data protection that may be available under pharmaceutical regulatory laws. The primary forms of data protection are as follows:

- Regulatory authorities in major markets generally grant data package protection for a period of years following new drug approvals in recognition of the substantial investment required to complete clinical trials. Data package protection prohibits other manufacturers from submitting regulatory applications for marketing approval based on the innovator company's regulatory submission data for the drug. The base period of data package protection depends on the country. For example, the period is generally five years in the U.S. (12 years for new biologics as described below), effectively 10 years in the EU, and eight years in Japan. The period begins on the date of product approval and runs concurrently with the patent term for any relevant patent.
- Under the Biologics Price Competition and Innovation Act of 2009 (the BPCI Act), the FDA has the authority to approve biosimilars. A competitor seeking approval of a biosimilar must file an application to show its molecule is highly similar to an approved innovator biologic and include a certain amount of safety and efficacy data that the FDA will determine on a case-by-case basis. Under the data protection provisions of this law, the FDA cannot approve a biosimilar application until 12 years after initial marketing approval of the innovator biologic, subject to certain conditions.
- In the U.S., the FDA has the authority to grant additional data protection for approved drugs where the sponsor conducts specified testing in pediatric or adolescent populations within a specified time period. If granted, this "pediatric exclusivity" provides an additional six months of exclusivity, which is added to the term of data protection as well as to the term of any relevant patents, to the extent these protections have not already expired. While the term of the pediatric exclusivity attaches to the term of any relevant patent, pediatric exclusivity is a regulatory exclusivity, a bar to generic approval, not a patent right.
- Under the U.S. orphan drug law, a specific use of a drug or biologic can receive "orphan" designation if it is intended to treat a disease or condition affecting fewer than 200,000 people in the U.S., or affecting more than 200,000 people but not reasonably expected to recover its development and marketing costs through U.S. sales. Among other benefits, orphan designation entitles the particular use of the drug to seven years of market exclusivity, meaning that the FDA cannot (with limited exceptions) approve another marketing application for the same drug for the same indication until expiration of the seven-year period. Unlike

pediatric exclusivity, the orphan exclusivity period is independent of and runs in parallel with any applicable patents.

Outside the major markets, the adequacy and effectiveness of intellectual property protection for human pharmaceuticals varies widely, and in a number of these markets we are unable to patent our products or to enforce the patents we receive for our products. Under the Trade-Related Aspects of Intellectual Property Agreement (TRIPs) administered by the World Trade Organization, more than 140 countries have agreed to provide non-discriminatory protection for most pharmaceutical inventions and to assure that adequate and effective rights are available to patent owners. Implementation of this agreement differs between developed and developing countries, with many developing countries limiting protection for biopharmaceutical products under their interpretation of "flexibilities" allowed under the agreement. Thus, certain types of patents, such as those on new uses of compounds or new forms of molecules, are not available in many developing countries. Further, many developing countries, and some developed countries, do not provide effective data package protection even though it is specified in TRIPs.

Certain of our Elanco animal health products are covered by patents or other forms of intellectual property protection. Historically, upon loss of effective market exclusivity for our animal health products, we have not generally experienced the rapid and severe declines in revenues that are common in the human pharmaceutical segment.

Our Intellectual Property Portfolio

We consider intellectual property protection for certain products, processes, uses, and formulations—particularly with respect to those products discussed below—to be important to our operations. For many of our products, in addition to the compound patent, we hold other patents on manufacturing processes, formulations, or uses that may extend exclusivity beyond the expiration of the compound patent.

The most relevant U.S. patent protection or data protection for our top-selling or recently launched patent-protected marketed products is as follows:

- Alimta is protected by a vitamin regimen patent (2021) plus pediatric exclusivity (2022).
- Cyramza is protected by a compound patent and biologics data package protection (2026).
- Emgality is protected by a compound patent (2033).
- Forteo is protected by use patents (August 2019).
- Jardiance, and the related combination products Glyxambi and Synjardy, are protected by a compound patent (2025, not including possible patent extension).
- Lartruvo is protected by a compound patent (2027, not including possible patent extension) and by biologics data package protection (2028). Following a negative result in a recent clinical trial, we are suspending promotion of Lartruvo and are working with global regulators to determine the appropriate next steps.
- Olumiant, is protected by a compound patent (2030, not including possible patent extension).
- Portrazza is protected by a compound patent (2025, not including possible patent extension), and by biologics data package protection (2027).
- Taltz is protected by a compound patent (2026, not including possible patent extension) and by biologic data package protection (2028).
- Trajenta and Jentadueto are protected by a compound patent (2023, not including possible patent extension).
- Trulicity is protected by a compound patent (2024, not including possible patent extension) and by biologics data package protection (2026).
- Verzenio is protected by a compound patent (2029, not including possible patent extension).

Outside the U.S., important patent protection or data protection includes:

- Alimta in major European countries (vitamin regimen patent 2021) and Japan (patents covering use to treat cancer concomitantly with vitamins 2021).
- Cymbalta in Japan (data package protection January 2020).
- Forteo in Japan (patents covering its formulation and its use August 2019).

- Lartruvo in major European countries (compound patent and data package protection 2026, not including possible patent extension). Following a negative result in a recent clinical trial, we are suspending promotion of Lartruvo and are working with global regulators to determine the appropriate next steps.
- Olumiant in major European countries (compound patent 2029, not including possible patent extension) and Japan (compound patent 2033).
- Taltz in major European countries (data package protection 2026; compound patent 2031).

Nasal glucagon has been submitted for regulatory review in the U.S. and is protected by delivery device patents (latest expiring 2034), with data protection (3.5 years) expected upon approval. In Europe, nasal glucagon is protected by delivery device patents (latest expiring 2034), with data protection (6 years) expected upon approval.

Lasmiditan has been submitted for regulatory review in the U.S. and is protected by a compound patent (2025, not including possible patent extension).

Worldwide, we sell all of our major products under trademarks for names and unique product appearance, which we consider in the aggregate to be important to our operations. Trademark protection varies throughout the world, with protection continuing in some countries as long as the mark is used, and in other countries as long as it is registered. Registrations are normally for fixed but renewable terms. Trademark protection often extends beyond the patent and data protection for a product.

Patent Licenses

Most of our major products are not subject to significant license agreements. For information on our license and collaboration agreement with Incyte Corporation related to Olumiant, see "Financial Statements and Supplementary Data - Note 4, Collaborations."

Patent Challenges

In the U.S., the Drug Price Competition and Patent Term Restoration Act of 1984, commonly known as the Hatch-Waxman Act, authorizes the FDA to approve generic versions of innovative human pharmaceuticals (other than biologics) without completion of safety and efficacy studies, i.e., a complete New Drug Application (NDA) by filing an Abbreviated New Drug Application (ANDA). In an ANDA, the generic manufacturer must demonstrate only "bioequivalence" between the generic version and the NDA-approved drug—not safety and efficacy. Establishing bioequivalence is generally straightforward and inexpensive for the generic company.

Absent a patent challenge, the FDA cannot approve an ANDA until after certain of the innovator's patents expire. However, after the innovator has marketed its product for four years, a generic manufacturer may file an ANDA alleging that one or more of the patents listed in the innovator's NDA are invalid or not infringed. This allegation is commonly known as a "Paragraph IV certification." The innovator must then file suit against the generic manufacturer to protect its patents. The FDA is then prohibited from approving the generic company's application for a 30-month period (which can be shortened or extended by the trial court judge hearing the patent challenge). If one or more of the NDA-listed patents are challenged, the first filer(s) of a Paragraph IV certification may be entitled to a 180-day period of market exclusivity over all other generic manufacturers.

Generic manufacturers use Paragraph IV certifications extensively to challenge patents on innovative human pharmaceuticals. In addition, generic companies have shown willingness to launch "at risk," i.e., after receiving ANDA approval but before final resolution of their patent challenge. We are currently in litigation with numerous generic manufacturers in Hatch-Waxman litigation involving Alimta, among other products. For more information on Hatch-Waxman litigation involving the company, see "Financial Statements and Supplementary Data - Note 15, Contingencies."

Under the BPCI Act, the FDA cannot approve a biosimilar application until data protection expires, 12 years after initial marketing approval of the innovator biologic. However, the BPCI Act does provide a mechanism for a competitor to challenge the validity of an innovator's patents as early as four years after initial marketing approval of the innovator biologic. The patent litigation scheme under the BPCI Act is complex, and interpretation of the BPCI Act is currently the subject of ongoing litigation. Specifically, courts have now held that biosimilar applicants are not required to engage in the BPCI Act litigation scheme. Patent holders still have the right to bring suit under normal patent law procedures if a biosimilar applicant attempts to commercialize a product prior to patent expiration.

In addition, there is a procedure in U.S. patent law known as inter partes review (IPR), which allows any member of the public to file a petition with the USPTO seeking the review of any issued U.S. patent. IPRs are conducted before Administrative Patent Judges in the USPTO using a lower standard of proof than used in federal district court. In

addition, the challenged patents are not accorded the presumption of validity as they are in federal district court. We are now seeing instances where generic drug companies and some investment firms are attempting to invalidate our patents by filing IPR challenges in the USPTO. For more information, see "Financial Statements and Supplementary Data - Note 15, Contingencies."

Outside the U.S., the legal doctrines and processes by which pharmaceutical patents can be challenged vary widely. In recent years, we have experienced an increase in patent challenges from generic manufacturers in many countries outside the U.S., and we expect this trend to continue. For more information on administrative challenges and litigation involving our Alimta patents in Europe and Japan, see "Financial Statements and Supplementary Data - Note 15, Contingencies."

Government Regulation of Our Operations

Our operations are regulated extensively by numerous national, state, and local agencies. The lengthy process of laboratory and clinical testing, data analysis, manufacturing development, and regulatory review necessary for governmental approvals is extremely costly and can significantly delay product introductions. Promotion, marketing, manufacturing, and distribution of human pharmaceutical and animal health products are extensively regulated in all major markets. We conduct extensive post-marketing surveillance of the safety of the products we sell. In addition, our operations are subject to complex federal, state, local, and foreign laws and regulations concerning the environment, occupational health and safety, and privacy. Animal health product regulations address the administration of the product in or on the animal, and in the case of food animal products, the impact on humans who consume the food as well as the impact on the environment at the production site. Compliance with the laws and regulations affecting the manufacture and sale of current products and the discovery, development, and introduction of new products will continue to require substantial effort, expense, and capital investment.

Of particular importance to our business is the FDA in the U.S. Pursuant to the Federal Food, Drug, and Cosmetic Act, the FDA has jurisdiction over all of our human pharmaceutical products and devices and certain animal health products in the U.S. and administers requirements covering the testing, safety, effectiveness, manufacturing, quality control, distribution, labeling, marketing, advertising, dissemination of information, and post-marketing surveillance of those products.

The FDA extensively regulates all aspects of manufacturing quality for human pharmaceuticals under its current Good Manufacturing Practices (cGMP) regulations. Outside the U.S., our products and operations are subject to similar regulatory requirements, notably by the European Medicines Agency in the EU and the Ministry of Health, Labor and Welfare in Japan. Specific regulatory requirements vary from country to country. We make substantial investments of capital and operating expenses to implement comprehensive, company-wide quality systems in our manufacturing, product development, and process development operations in an effort to ensure sustained compliance with cGMP and similar regulations. However, in the event we fail to adhere to these requirements in the future, we could be subject to interruptions in production, fines and penalties, and delays in new product approvals. Certain of our products are manufactured by third parties, and their failure to comply with these regulations could adversely affect us through failure to supply product to us or delays in new product approvals.

The U.S. Department of Agriculture and the U.S. Environmental Protection Agency also regulate some animal health products.

The marketing, promotional, and pricing practices of human pharmaceutical manufacturers, as well as the manner in which manufacturers interact with purchasers, prescribers, and patients, are subject to various other U.S. federal and state laws, including the federal anti-kickback statute and the False Claims Act and state laws governing kickbacks, false claims, unfair trade practices, and consumer protection. These laws are administered by, among others, the Department of Justice (DOJ), the Office of Inspector General of the Department of Health and Human Services, the Federal Trade Commission, the Office of Personnel Management, and state attorneys general. Over the past several years, state and federal governments have increased their oversight, enforcement activities, and intra-agency coordination with respect to pharmaceutical companies. Several claims brought by these agencies against us and other companies under these and other laws have resulted in corporate criminal sanctions and very substantial civil settlements.

The U.S. Foreign Corrupt Practices Act of 1977 (FCPA) prohibits certain individuals and entities, including U.S. publicly traded companies, from promising, offering, or giving anything of value to foreign officials with the corrupt intent of influencing the foreign official for the purpose of helping the company obtain or retain business or gain any improper advantage. The FCPA also imposes specific recordkeeping and internal controls requirements on U.S. publicly traded companies. As noted above, outside the U.S., our business is heavily regulated and therefore involves significant interaction with foreign officials. Additionally, in many countries outside the U.S., the health care providers who prescribe human pharmaceuticals are employed by the government and the purchasers of human pharmaceuticals are government entities; therefore, our interactions with these prescribers and purchasers are subject to regulation under the FCPA.

In addition to the U.S. application and enforcement of the FCPA, the various jurisdictions in which we operate and supply our products have laws and regulations aimed at preventing and penalizing corrupt and anticompetitive behavior. In recent years, several jurisdictions, including China, Brazil, and the United Kingdom (U.K.), have enhanced their laws and regulations in this area, increased their enforcement activities, and/or increased the level of cross-border coordination and information sharing.

We are and could in the future become subject to administrative and legal proceedings and actions, which could include claims for civil penalties (including treble damages under the False Claims Act), criminal sanctions, and administrative remedies, including exclusion from U.S. federal and other health care programs. It is possible that an adverse outcome in future actions could have a material adverse impact on our consolidated results of operations, liquidity, and financial position.

Regulations and Private Payer Actions Affecting Human Pharmaceutical Pricing, Reimbursement, and Access

In the U.S., we are required to provide rebates to the federal government and respective state governments on their purchases of our human pharmaceuticals under state Medicaid and Medicaid Managed Care programs (minimum of 23.1 percent plus adjustments for price increases over time) and rebates to private payers who cover patients in certain types of health care facilities that serve low-income and uninsured patients (known as 340B facilities). No rebates are required at this time in the Medicare Part B (physician and hospital outpatient) program where reimbursement is set on an "average selling price plus 4.3 percent" formula. Additionally, an annual fee is imposed on pharmaceutical manufacturers and importers that sell branded prescription drugs to specified government programs. Beginning in 2019,the Bipartisan Budget Act requires manufacturers of brand-name drugs, biologics, and biosimilars to provide a discount of 70 percent of the cost of branded prescription drugs for Medicare Part D participants who are in the "doughnut hole" (the coverage gap in Medicare prescription drug coverage), up from the previous 50-percent discount. In January 2019, the Department of Health and Human Services released a proposed rule to reform the system of rebates paid to Medicare Part D plans, Medicaid Managed Care organizations, and pharmacy benefit managers. We are currently reviewing the proposed rule, the impact of which is uncertain at this time.

Rebates are also negotiated in the private sector. We give rebates to private payers who provide prescription drug benefits to seniors covered by Medicare and to private payers who provide prescription drug benefits to their customers. These rebates are affected by the introduction of competitive products and generics in the same class.

In May 2018, the White House released "American Patients First: The Trump Administration Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs" (Blueprint). The Administration's corresponding request for information included more than 30 proposed policy changes. We believe the effect of certain of these proposals would be positive for our business while others would have negative consequences to our business. The effect of these proposals, and other proposals that extend beyond the Blueprint, will depend on the details and timing of the final legislation, regulation, or guidance and could lead to a wide range of outcomes. Some of these outcomes could have a material adverse effect on our consolidated results of operations and cash flows. At the state level in the U.S., California, Nevada, and several other states have enacted legislation related to prescription drug pricing transparency. It is unclear the effect this legislation will have on our business.

In most international markets, we operate in an environment of government-mandated cost-containment programs, which may include price controls, international reference pricing (to other countries' prices), discounts and rebates, therapeutic reference pricing (to other, often generic, pharmaceutical choices), restrictions on physician prescription levels, and mandatory generic substitution.

Globally, public and private payers are increasingly restricting access to human pharmaceuticals based on assessments of comparative effectiveness and value, including through the establishment of formal health technology assessment processes. In addition, third party organizations, including professional associations, academic institutions, and non-profit entities associated with payers, are conducting and publishing comparative effectiveness and cost/benefit analyses on medicines, the impact of which are uncertain at this time.

We cannot predict the extent to which our business may be affected by these or other potential future legislative, regulatory, or payer developments. However, in general we expect that state, federal, and international legislative and regulatory developments could have further negative effects on pricing and reimbursement for our human pharmaceutical products.

Research and Development

Our commitment to research and development dates back more than 140 years. We invest heavily in research and development because we believe it is critical to our long-term competitiveness. At the end of 2018, we employed approximately 8,500 people in human pharmaceutical and animal health research and development activities, including a substantial number of physicians, scientists holding graduate or postgraduate degrees, and highly skilled technical personnel.

Our internal human pharmaceutical research focuses primarily on the areas of oncology, diabetes, neurodegeneration, immunology, and pain. We believe that we have a strong biotechnology research program, with more than half of our clinical-stage pipeline currently consisting of biologics. In addition to discovering and developing NMEs, we seek to expand the value of existing products through new uses, formulations, and therapeutic approaches that provide additional value to patients.

To supplement our internal efforts, we collaborate with others, including academic institutions and research-based pharmaceutical and biotechnology companies. We use the services of physicians, hospitals, medical schools, and other research organizations worldwide to conduct clinical trials to establish the safety and effectiveness of our human pharmaceutical products. We actively invest in external research and technologies that we believe complement and strengthen our own efforts. These investments can take many forms, including licensing arrangements, co-development and co-marketing agreements, co-promotion arrangements, joint ventures, and acquisitions.

Our Elanco animal health innovation strategy is focused on identifying and developing promising technologies and potential products from internal and external sources to meet unmet veterinary, food producer, and pet owner needs. Our animal health scientists also leverage discoveries from our human health laboratories to develop products to enhance the health and well-being of farm animals and pets.

Human pharmaceutical development is time-consuming, expensive, and risky. On average, only one out of many thousands of molecules discovered by researchers ultimately becomes an approved medicine. The process from discovery to regulatory approval can take over a decade. Drug candidates can fail at any stage of the process, and even late-stage drug candidates sometimes fail to receive regulatory approval or achieve commercial success. The rate of innovation cycles leading to medical improvements over initial inventions is accelerating, which has increased the risk that we opt not to develop a late-stage asset or that new products fail to achieve commercial success due to technical obsolescence - displacement by follow-on competitor products - before the period of exclusivity has ended. After approval and launch of a product, we expend considerable resources on post-marketing surveillance and additional clinical studies to collect data and understand the benefits and potential risks of medicines as they are used as therapeutics. The following describes in more detail the research and development process for human pharmaceutical products:

Phases of New Drug Development

- **Discovery Phase**

  The earliest phase of new drug research and development, the discovery phase, can take many years. Scientists identify, design, and synthesize promising molecules, screening tens of thousands of molecules for their effect on biological targets that appear to play an important role in one or more diseases. Targets can be part of the body, such as a protein, receptor, or gene; or foreign, such as a virus or bacteria. Some targets have been proven to affect disease processes, but often the target is unproven and may later prove to be irrelevant to the disease or to yield insufficient clinical benefit. Molecules that have the desired effect on the target and meet other design criteria become candidate molecules and move to the next phase of development. The probability of any one candidate molecule becoming a commercial product is extremely low.

- **Early Development Phase**

  The early development phase involves refining candidate molecules, understanding how to manufacture them efficiently, and completing initial testing for safety and efficacy. Safety testing is done first in laboratory tests and animals as necessary, to identify toxicity and other potential safety issues that would preclude use in humans. In general, the first human tests (often referred to as Phase I) are conducted in small groups of healthy volunteers or patients to assess safety and find the potential dosing range. After a safe dose range has been established, the drug is typically administered to small populations of patients (Phase II) to look for initial signs of efficacy in treating the targeted disease, or biomarkers of the disease, and to continue to assess safety. In parallel, scientists work to identify safe, effective, and economical manufacturing processes. Long-term animal studies continue to test for potential safety issues. Of the molecules that enter the early development phase, approximately 10 percent move on to the product phase. The early development phase can take several years to complete.

- **Product Phase**

  Product phase (Phase III) molecules have met initial safety requirements and, typically, shown initial evidence of efficacy. As a result, these molecules generally have a higher likelihood of success. The molecules are tested in much larger patient populations to demonstrate efficacy to a predetermined level of statistical significance and to continue to develop the safety profile. These trials are generally global in nature and are designed to generate the data necessary to submit the molecule to regulatory agencies for marketing approval. The potential new drug is generally compared with existing competitive therapies, placebo, or both. The resulting data is compiled and may be submitted to regulatory agencies around the world. Phase III testing varies by disease state, but can often last from three to four years.

- **Submission Phase**

  Once a molecule is submitted to regulatory agencies, the time to final marketing approval can vary from several months to several years, depending on variables such as the disease state, the strength and complexity of the data presented, the novelty of the target or compound, and the time required for the agency(ies) to evaluate the submission. There is no guarantee that a potential medicine will receive marketing approval, or that decisions on marketing approvals or indications will be consistent across geographic areas.

We believe our investments in research, both internally and in collaboration with others, have been rewarded by the large number of new molecules and new indications for existing molecules that we have in all stages of development. We currently have approximately 45 drug candidates across all stages of human testing and a larger number of projects in preclinical development. Among our new investigational molecules currently in the product phase of development or awaiting regulatory approval or launch are potential therapies for various cancers; Alzheimer's disease; pain; migraine; diabetes; severe hypoglycemia; and autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus, psoriasis, atopic dermatitis, and ulcerative colitis. We are studying many other drug candidates in the earlier stages of development in our chosen priority areas. We are also developing new uses, formulations, or delivery methods for many of these molecules as well as several currently marketed products. See "Management's Discussion and Analysis - Results of Operations - Executive Overview - Late-Stage Pipeline," for more information on certain of our product candidates.

Raw Materials and Product Supply

Most of the principal materials we use in our manufacturing operations are available from more than one source. However, we obtain certain raw or intermediate materials primarily from only one source. We generally seek to maintain sufficient inventory to supply the market until an alternative source of supply could be implemented, in the event one of these suppliers was unable to provide the materials or product. However, in the event of an extended failure of a supplier, it is possible that we could experience an interruption in supply until we established new sources or, in some cases, implemented alternative processes.

The majority of our revenue comes from products produced in our own facilities. Our principal active ingredient manufacturing occurs at sites we own in the U.S., Ireland, and Puerto Rico. Finishing operations, including formulation, filling, assembling, delivery device manufacturing, and packaging, take place at a number of sites throughout the world. We utilize third parties for certain active ingredient manufacturing and finishing operations.

We manage our supply chain (including our own facilities, contracted arrangements, and inventory) in a way that is intended to allow us to meet all expected product demand while maintaining flexibility to reallocate manufacturing capacity to improve efficiency and respond to changes in supply and demand. To maintain a stable supply of our products, we use a variety of techniques including comprehensive quality systems, inventory management, and back-up sites.

However, human pharmaceutical and animal health production processes are complex, highly regulated, and vary widely from product to product. Shifting or adding manufacturing capacity can be a very lengthy process requiring significant capital expenditures, process modifications, and regulatory approvals. Accordingly, if we were to experience extended plant shutdowns at one of our own facilities, extended failure of a contract supplier, or extraordinary unplanned increases in demand, we could experience an interruption in supply of certain products or product shortages until production could be resumed or expanded.

Quality Assurance

Our success depends in great measure upon customer confidence in the quality of our products and in the integrity of the data that support their safety and effectiveness. Product quality arises from a total commitment to quality in all parts of our operations, including research and development, purchasing, facilities planning, manufacturing, distribution, and dissemination of information about our medicines.

Quality of production processes involves strict control of ingredients, equipment, facilities, manufacturing methods, packaging materials, and labeling. We perform tests at various stages of production processes and on the final product in an effort to assure that the product meets all regulatory requirements and Lilly internal standards. These tests may involve chemical and physical chemical analyses, microbiological testing, testing in animals, or a combination thereof. Additional assurance of quality is provided by corporate quality-assurance groups that audit and monitor all aspects of quality related to human pharmaceutical and animal health manufacturing procedures and systems in company operations and at third-party suppliers.

Risk Factors

In addition to the other information contained in this annual report, the following risk factors should be considered carefully in evaluating our company. It is possible that our business, financial condition, liquidity, or results of operations could be materially adversely affected by any of these risks. Certain of these risks could also adversely affect the company's reputation.

- **Pharmaceutical research and development is very costly and highly uncertain; we may not succeed in developing or acquiring commercially successful products sufficient in number or value to replace revenues of products that have lost or will soon lose intellectual property protection or are displaced by competing products or therapies.**

  There are many difficulties and uncertainties inherent in human pharmaceutical research and development and the introduction of new products. There is a high rate of failure inherent in new drug discovery and development. To bring a drug from the discovery phase to market can take over a decade and often costs in excess of $2 billion. Failure can occur at any point in the process, including in later stages after substantial investment. As a result, most funds invested in research programs will not generate financial returns. New product candidates that appear promising in development may fail to reach the market or may have only limited commercial success because of efficacy or safety concerns, inability to obtain or maintain necessary regulatory approvals or payer reimbursement or coverage, limited scope of approved uses, changes in the relevant treatment standards or the availability of new or better competitive products, difficulty or excessive costs to manufacture, or infringement of the patents or intellectual property rights of others. Regulatory agencies continue to establish increasingly high hurdles for the efficacy and safety of new products. Delays and uncertainties in drug approval processes can result in delays in product launches and lost market opportunity. In addition, it can be very difficult to predict revenue growth rates of new products.

  We cannot state with certainty when or whether our products now under development will be approved or launched; whether, if initially granted, such approval will be maintained; whether we will be able to develop, license, or otherwise acquire additional product candidates or products; or whether our products, once launched, will be commercially successful. We must maintain a continuous flow of successful new products and successful new indications or brand extensions for existing products sufficient both to cover our substantial research and development costs and to replace revenues that are lost as profitable products lose intellectual property exclusivity or are displaced by competing products or therapies. Failure to do so in the short-term or long-term would have a material adverse effect on our business, results of operations, cash flows, financial position, and prospects. See “Management’s Discussion and Analysis - Results of Operations - Executive Overview - Late-Stage Pipeline” for more details.

- **We depend on products with intellectual property protection for most of our revenues, cash flows, and earnings; we have lost or will lose effective intellectual property protection for many of those products in the next several years, which has resulted and is likely to continue to result in rapid and severe declines in revenues.**

  A number of our top-selling human pharmaceutical products have recently lost, or will lose in the next several years, significant patent protection and/or data protection in the U.S. as well as key countries outside the U.S., as illustrated in the tables below:

Product	U.S. Revenues (2018) ($ in millions)	Percent of Worldwide Revenues (2018)	Patent / Data Protection - U.S.
Alimta	1,131.0	5%	Vitamin regimen patent plus pediatric exclusivity will expire in 2022
Cialis	1,129.2	5%	Compound patent plus pediatric exclusivity expired in May 2018 and unit dose patent expired in September 2018
Forteo	757.9	3%	Formulation and related process patents expired in December 2018 and use patents will expire in August 2019

Product	Revenues Outside U.S. (2018) ($ in millions)	Percent of Worldwide Revenues (2018)	Patent / Data Protection - Major Europe / Japan
Alimta	$ 1,001.9	4%	Major European countries: vitamin regimen patent will expire in 2021 Japan: use patents to treat cancer concomitantly with vitamins will expire in 2021
Forteo	817.7	3%	Japan: data package protection expired in July 2018; formulation and use patents will expire in August 2019
Cymbalta	653.7	3%	Japan: data package protection will expire in January 2020

  Certain other significant products no longer have effective exclusivity through patent protection or data protection. For non-biologic products, loss of exclusivity (whether by expiration or as a consequence of litigation) typically results in the entry of one or more generic competitors, leading to a rapid and severe decline in revenues, especially in the U.S. Historically, outside the U.S. the market penetration of generics following loss of exclusivity has not been as rapid or pervasive as in the U.S.; however, generic market penetration is increasing in many markets outside the U.S., including Japan, Europe, and many countries in the emerging markets. For biologics (such as Humalog, Humulin, Erbitux, Cyramza, Trulicity, Taltz, and Emgality), loss of exclusivity may or may not result in the near-term entry of competitor versions (i.e., biosimilars) due to development timelines, manufacturing challenges, and/or uncertainties in the regulatory pathways for approval of the competitor versions.

  There is no assurance that the patents we are seeking will be granted or that the patents we hold will be found valid and enforceable if challenged. Moreover, patents relating to particular products, uses, formulations, or processes do not preclude other manufacturers from employing alternative processes or marketing alternative products or formulations that compete with our patented products. In addition, competitors or other third parties may assert claims that our activities infringe patents or other intellectual property rights held by them, or allege a third-party right of ownership in our existing intellectual property. See "Management's Discussion and Analysis - Results of Operations - Executive Overview - Other Matters - Patent Matters" and "Business - Patents, Trademarks, and Other Intellectual Property Rights" for more details.

- **Our long-term success depends on intellectual property protection; if our intellectual property rights are invalidated, circumvented, or weakened, our business will be adversely affected.**

  Our long-term success depends on our ability to continually discover or acquire, develop, and commercialize innovative new pharmaceutical products. Without strong intellectual property protection, we would be unable to generate the returns necessary to support the enormous investments in research and development and capital as well as other expenditures required to bring new drugs to the market.

  Intellectual property protection varies throughout the world and is subject to change over time. In the U.S., in addition to the process for challenging patents which applies to our biologic products, the Hatch-Waxman Act provides generic companies powerful incentives to seek to invalidate our other human pharmaceutical patents. As a result, we expect that our U.S. patents on major pharmaceutical products will continue to be routinely challenged in litigation and administrative proceedings, and may not be upheld. In addition, a separate IPR process allows competitors to request review of issued patents by the USPTO without the protections of the

Hatch-Waxman Act. Our patents may be invalidated via this review process. Although such a decision can be appealed to the courts, in certain circumstances a loss in such a proceeding could result in a competitor entering the market, while a win provides no precedential value - the same patent can still be challenged by other competitors. We face many generic manufacturer challenges to our patents outside the U.S. as well. The entry of generic competitors typically results in rapid and severe declines in revenues. In addition, competitors or other third parties may claim that our activities infringe patents or other intellectual property rights held by them. If successful, such claims could result in our being unable to market a product in a particular territory or being required to pay significant damages for past infringement or royalties on future sales. See "Business - Patents, Trademarks, and Other Intellectual Property Rights" and "Financial Statements and Supplementary Data - Note 15, Contingencies" for more details.

- **Our human pharmaceutical business is subject to increasing government price controls and other public and private restrictions on pricing, reimbursement, and access for our drugs, which could have a material adverse effect on our reputation or business.**

  Public and private payers are taking increasingly aggressive steps to control their expenditures for human pharmaceuticals by placing restrictions on pricing and reimbursement for, and patient access to, our medications. These pressures could continue to negatively affect our future revenues and net income.

  We expect pricing, reimbursement, and access pressures from both governments and private payers inside and outside the U.S. to become more severe. For more details, see "Business - Regulations and Private Payer Actions Affecting Human Pharmaceutical Pricing, Reimbursement, and Access," and "Management's Discussion and Analysis - Results of Operations - Executive Overview - Other Matters - Trends Affecting Pharmaceutical Pricing, Reimbursement, and Access."

- **We face intense competition from multinational pharmaceutical companies, biotechnology companies, and lower-cost generic and biosimilar manufacturers, and such competition could have a material adverse effect on our business.**

  We compete with a large number of multinational pharmaceutical companies, biotechnology companies, and generic pharmaceutical companies. To compete successfully, we must continue to deliver to the market innovative, cost-effective products that meet important medical needs. Our product revenues can be adversely affected by the introduction by competitors of branded products that are perceived as superior by the marketplace, by generic or biosimilar versions of our branded products, and by generic or biosimilar versions of other products in the same therapeutic class as our branded products. Our revenues can also be adversely affected by treatment innovations that eliminate or minimize the need for treatment with our drugs. See "Business - Competition" and "Business - Research and Development" for more details.

- **Changes in foreign currency rates or devaluation of a foreign currency can materially affect our revenue, cost of sales, and operating expenses.**

  As a global company with substantial operations outside the U.S., we face foreign currency risk exposure from fluctuating currency exchange rates. While we seek to manage a portion of these exposures through hedging and other risk management techniques, significant fluctuations in currency rates can have a material impact, either positive or negative, on our revenue, cost of sales, and operating expenses. In the event of an extreme devaluation of local currency, the price of our products could become unsustainable in the relevant market. See "Management's Discussion and Analysis - Financial Condition" for more details.

- **Unanticipated changes in our tax rates or exposure to additional tax liabilities could increase our income taxes and decrease our net income.**

  We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Changes in the relevant tax laws, regulations, administrative practices, principles, and interpretations could adversely affect our future effective tax rates. The U.S. enacted tax reform legislation significantly revising the U.S. tax law, effective January 2018, and a number of other countries are actively considering or enacting tax changes. Modifications to key elements of the U.S. or international tax framework could have a material adverse effect on our consolidated operating results and cash flows. See "Management's Discussion and Analysis - Results of Operations - Executive Overview - Other Matters" and "Financial Statements and Supplementary Data - Note 13, Income Taxes" for more details.

- **Failure, inadequacy, or breach of our information technology systems, infrastructure, and business information or violations of data protection laws could result in material harm to our business and reputation.**

  A great deal of confidential information owned by both us and our business partners is stored in our information systems, networks, and facilities or those of third parties. This includes valuable trade secrets and intellectual property, clinical trial information, corporate strategic plans, marketing plans, customer information, and personally identifiable information, such as employee and patient information (collectively, "confidential information"). We also rely to a large extent on the efficient and uninterrupted operation of complex information technology systems, infrastructure, and hardware (together "IT systems"), some of which are within the company's control and some of which are within the control of third parties, to accumulate, process, store, and transmit large amounts of confidential information and other data. Maintaining the confidentiality, integrity and availability of our IT systems and confidential information is vital to our business.

  IT systems are vulnerable to system inadequacies, operating failures, service interruptions or failures, security breaches, malicious intrusions, or cyber-attacks from a variety of sources. Cyber-attacks are growing in their frequency, sophistication, and intensity, and are becoming increasingly difficult to detect, mitigate, or prevent. Cyber-attacks come in many forms, including the deployment of harmful malware, exploitation of vulnerabilities, denial-of-service attacks, the use of social engineering, and other means to compromise the confidentiality, integrity and availability of our IT systems, confidential information, and other data. Breaches resulting in the compromise, loss, theft, destruction, or unauthorized disclosure or use of confidential information, or the unauthorized access to, disruption of, or interference with our products and services, can occur in a variety of ways, including but not limited to, negligent or wrongful conduct by employees or others with permitted access to our systems and information, or wrongful conduct by hackers, competitors, certain governments, or other current or former company personnel. Our third party partners face similar risks.

  The failure or inadequacy of our IT systems, the compromise, loss, theft, destruction, or unauthorized disclosure or use of confidential information, or the unauthorized access to, disruption of, or interference with our products and services that rely on IT systems, could impair our ability to secure and maintain intellectual property rights; result in a product manufacturing interruption or failure, or in the interruption or failure of products or services that rely on IT systems; damage our operations, customer relationships, or reputation; or cause us to lose trade secrets or other competitive advantages. Unauthorized disclosure of personally identifiable information could expose us to significant sanctions for violations of data privacy laws and regulations around the world and could damage public trust in our company.

  To date, system inadequacies, operating failures, unauthorized access, service interruptions or failures, security breaches, malicious intrusions, cyber-attacks, and the compromise, loss, theft, destruction, or unauthorized disclosure or use of confidential information have not had a material impact on our consolidated results of operations. We have implemented measures to protect, detect, respond to, and minimize or prevent these risks; however, these measures may not be successful. If they are not successful, any of these events could result in material financial, legal, business, or reputational harm to our business .

- **Significant economic downturns or international trade disruptions or disputes could adversely affect our business and operating results.**

  While human pharmaceuticals and companion animal health products have not generally been sensitive to overall economic cycles, prolonged economic slowdowns could lead to decreased utilization of our products, affecting our sales volume. Our food animal business may be affected by depressed prices for our customers' end products. Declining tax revenues attributable to economic downturns increase the pressure on governments to reduce human health care spending, leading to increasing government efforts to control drug prices and utilization. Additionally, some customers, including governments or other entities reliant upon government funding, may be unable to pay in a timely manner for our products. Also, if our customers, suppliers, or collaboration partners experience financial difficulties, we could experience slower customer collections, greater bad debt expense, and performance defaults by suppliers or collaboration partners. Similarly, in the event of a significant economic downturn, we could have difficulty accessing credit markets.

  Significant portions of our business are conducted in Europe, including the U.K.; Asia; and other international geographies. Interruptions in international relationships such as the current negotiations between U.K. and the EU on the U.K.'s exit from the EU ("Brexit"), and trade disputes such as the current trade negotiations between the U.S. and China, could result in changes to regulations governing our products and our intellectual property, or otherwise affect our ability to do business. While we do not expect either circumstance to materially affect

our business in a direct manner, these and similar events could adversely affect us, or our business partners or customers.

- **Pharmaceutical products can develop unexpected safety or efficacy concerns, which could have a material adverse effect on revenues and income.**

  Human pharmaceutical products receive regulatory approval based on data obtained in controlled clinical trials of limited duration. After approval, the products are used for longer periods of time by much larger numbers of patients; we and others (including regulatory agencies and private payers) collect extensive information on the efficacy and safety of our marketed products by continuously monitoring the use of our products in the marketplace. In addition, we or others may conduct post-marketing clinical studies on efficacy and safety of our marketed products. New safety or efficacy data from both market surveillance and post-marketing clinical studies may result in product label changes or other measures that could reduce the product's market acceptance and result in declining sales. Serious safety or efficacy issues that arise after product approval could result in voluntary or mandatory product recalls or withdrawals from the market. Safety issues could also result in costly product liability claims.

- **We face many product liability claims and are self-insured; we could face large numbers of claims in the future, which could adversely affect our business.**

  We are subject to a substantial number of product liability claims involving Actos®, Axiron®, Byetta®, Cialis, and Cymbalta among other products. See "Financial Statements and Supplementary Data - Note 15, Contingencies" for more information on our current product liability litigation. Because of the nature of pharmaceutical products, we are and could in the future become subject to large numbers of product liability claims for these or other products in the future, which require substantial expenditures to resolve and, if involving marketed products, could adversely affect sales of the product. Due to a very restrictive market for product liability insurance, we are self-insured for product liability losses for all our currently marketed products.

- **Regulatory compliance problems could be damaging to the company.**

  The marketing, promotional, and pricing practices of human pharmaceutical manufacturers, as well as the manner in which manufacturers interact with purchasers, prescribers, and patients, are subject to extensive regulation. Many companies, including us, have been subject to claims related to these practices asserted by federal, state, and foreign governmental authorities, private payers, and consumers. These claims have resulted in substantial expense and other significant consequences to us. We are and could in the future become subject to such investigations, the outcomes of which could include criminal charges and fines, penalties, or other monetary or non-monetary remedies, including exclusion from U.S. federal and other health care programs. In addition, regulatory issues concerning compliance with cGMP regulations (and comparable foreign regulations) for pharmaceutical products can lead to product recalls and seizures, fines and penalties, interruption of production leading to product shortages, and delays in the approvals of new products pending resolution of the issues. See "Business - Government Regulation of Our Operations" for more details.

- **Manufacturing difficulties or disruptions could lead to product supply problems.**

  Pharmaceutical and animal health manufacturing is complex and highly regulated. Manufacturing difficulties at our facilities or contracted facilities, or the failure or refusal of a contract manufacturer to supply contracted quantities, could result in product shortages, leading to lost revenue. Such difficulties or disruptions could result from quality or regulatory compliance problems; natural disasters; mechanical or information technology system vulnerabilities, such as system inadequacies, operating failures, service interruptions or failures, security breaches, malicious intrusions, or cyber-attacks from a variety of sources; or inability to obtain sole-source raw or intermediate materials. In addition, given the difficulties in predicting sales of new products and the very long lead times necessary for the expansion and regulatory qualification of pharmaceutical manufacturing capacity, it is possible that we could have difficulty meeting unanticipated demand for new products. See "Business - Raw Materials and Product Supply" for more details.

- **Reliance on third-party relationships and outsourcing arrangements could adversely affect our business.**

  We rely on third parties, including suppliers, distributors, alliances with other pharmaceutical and biotechnology companies, and third-party service providers, for selected aspects of product development, manufacture, commercialization, support for information technology systems, product distribution, and certain financial transactional processes. For example, we outsource the day-to-day management and oversight of our clinical trials to contract research organizations. Outsourcing these functions involves the risk that the third parties may not perform to our standards or legal requirements; may not produce reliable results; may not perform in a timely manner; may not maintain the confidentiality, integrity, and availability of our proprietary

information; or may fail to perform at all. Failure of these third parties to meet their contractual, regulatory, confidentiality, or other obligations to us could have a material adverse effect on our business.

- **Our animal health segment faces risks related to increased generic competition, food and animal safety concerns, factors affecting global agricultural markets, and other risks.**

  The animal health segment may be impacted by, among other things, emerging restrictions and bans on the use of antibacterials in food-producing animals; perceived adverse effects on human health linked to the consumption of food derived from animals that utilize our products; increased regulation or decreased governmental support relating to the raising, processing, or consumption of food-producing animals; an outbreak of infectious disease carried by animals; adverse weather conditions and the availability of natural resources; adverse global economic conditions affecting agricultural markets; and failure of our research and development, acquisition, and licensing efforts to generate new products. The failure to manage these risks could have a material adverse effect on our revenues and income.

- **We may not realize the anticipated value or tax treatment for the divestiture of our interest in Elanco.**

  There are uncertainties and risks related to the timing and potential value to Elanco, Lilly, and our and their shareholders of the planned separation of the Elanco animal health business, including business, industry, and market risks, as well as risks involving realizing the anticipated tax-free nature of the separation. Failure to implement the separation effectively could result in a lower value to Lilly and to shareholders.

Management's Discussion and Analysis of Results of Operations and Financial Condition

RESULTS OF OPERATIONS

(Tables present dollars in millions, except per-share data)

General

Management's discussion and analysis of results of operations and financial condition is intended to assist the reader in understanding and assessing significant changes and trends related to the results of operations and financial position of our consolidated company. This discussion and analysis should be read in conjunction with the consolidated financial statements and accompanying footnotes in this Annual Report. Certain statements in this section of the Annual Report constitute forward-looking statements. Various risks and uncertainties, including those discussed in "Forward-Looking Statements" and "Risk Factors" may cause our actual results, financial position, and cash generated from operations to differ materially from these forward-looking statements.

Executive Overview

This section provides an overview of our financial results, recent product and late-stage pipeline developments, and other matters affecting our company and the pharmaceutical industry. Earnings per share (EPS) data are presented on a diluted basis.

Financial Results

The following table summarizes our key operating results:

	Year Ended December 31,		Percent Change
	2018	2017	
Revenue	**$ 24,555.7**	$ 22,871.3	7
Gross margin	**18,125.7**	16,720.5	8
Gross margin as a percent of revenue	**73.8%**	73.1%	
Operating expense	**$ 11,938.9**	$ 12,037.4	(1)
Acquired in-process research and development	**1,983.9**	1,112.6	78
Asset impairment, restructuring, and other special charges	**482.0**	1,673.6	(71)
Income before income taxes	**3,795.7**	2,197.4	73
Income taxes	**563.7**	2,401.5	(77)
Net income (loss)	**3,232.0**	(204.1)	NM
Earnings (loss) per share	**3.13**	(0.19)	NM

NM - not meaningful

Revenue and gross margin increased in 2018. The decrease in operating expense in 2018 was due to decreases in marketing, selling, and administrative expense and research and development expense. Income before income taxes increased in 2018 as a higher gross margin, lower asset impairment, restructuring, and other special charges and, to a lesser extent, lower operating expense were partially offset by higher acquired in-process research and development (IPR&D) charges. Income taxes decreased in 2018 as we recognized an income tax benefit primarily related to measurement period adjustments to the one-time repatriation transition tax (also known as the 'Toll Tax') and the global intangible low-taxed income (GILTI) provision due to the Tax Cuts and Jobs Act (2017 Tax Act).

The following highlighted items affect comparisons of our 2018 and 2017 financial results:

2018

Acquired IPR&D (Note 3 to the consolidated financial statements)

- We recognized acquired IPR&D charges of $1.98 billion (pretax), or $1.83 per share, primarily related to the acquisition of ARMO Biosciences Inc. (ARMO) and the collaboration with Dicerna Pharmaceuticals (Dicerna).

Asset Impairment, Restructuring, and Other Special Charges (Note 5 to the consolidated financial statements)

- We recognized charges of $482.0 million (pretax), or $0.41 per share, primarily associated with asset impairments related to the sale of the Posilac® (rbST) brand and the related sale of the Augusta, Georgia manufacturing site, as well as the suspension of commercial activities for Imrestor®. The charges also include expenses associated with the initial public offering (IPO) and separation of the Elanco animal health business, as well as efforts to reduce our cost structure.

Income Tax Expense (Note 13 to the consolidated financial statements)

- We recognized $313.3 million of income tax benefit, or $0.30 per share, primarily due to measurement period adjustments to the Toll Tax and GILTI.

2017

Acquired IPR&D (Note 3 to the consolidated financial statements)

- We recognized acquired IPR&D charges of $1.11 billion (pretax), or $0.97 per share, primarily related to the acquisition of CoLucid Pharmaceuticals, Inc. (CoLucid).

Asset Impairment, Restructuring, and Other Special Charges (Note 5 to the consolidated financial statements).

- We recognized charges of $1.67 billion (pretax), or $1.23 per share, primarily associated with efforts to reduce our cost structure, including the United States (U.S.) voluntary early retirement program.

Income Tax Expense (Note 13 to the consolidated financial statements)

- We recognized a provisional tax expense of $1.91 billion, or $1.81 per share, due to the 2017 Tax Act.

Late-Stage Pipeline

Our long-term success depends to a great extent on our ability to continue to discover and develop innovative pharmaceutical products and acquire or collaborate on molecules currently in development by other biotechnology or pharmaceutical companies. We currently have approximately 45 potential new drugs in human testing or under regulatory review and a larger number of projects in preclinical research.

The following new molecular entities (NMEs) have been approved by regulatory authorities in at least one of the major geographies for use in the diseases described. The first quarter in which each NME initially was approved in any major geography for any indication is shown in parentheses:

Abemaciclib (Verzenio®) (Q3 2017)—a small molecule cell-cycle inhibitor, selective for cyclin-dependent kinases 4 and 6 for the treatment of metastatic breast cancer.

Baricitinib (Olumiant®) (Q1 2017)—a Janus tyrosine kinase (JAK) inhibitor for the treatment of moderate-to-severe active rheumatoid arthritis (in collaboration with Incyte Corporation).

Galcanezumab* (Emgality®) (Q3 2018)—a once-monthly subcutaneously injected calcitonin gene-related peptide (CGRP) antibody for the treatment of migraine prevention. Refer to Item 3, "Legal Proceedings - Other Patent Litigation" in our filed 2018 Form 10-K for discussion of the lawsuit filed by Teva Pharmaceuticals International GMBH.

The following NME had received advanced approval by regulatory authorities in at least one of the major geographies for use in the diseases described, however in January 2019 we announced the phase III trial did not meet the primary endpoint of overall survival. As the trial did not confirm clinical benefit, we are suspending promotion and are working with global regulators to determine the appropriate next steps:

Olaratumab* (Lartruvo®) (Q4 2016)—a lgG1 monoclonal antibody for the treatment of advanced soft tissue sarcoma. See "Results of Operations - Executive Overview - Other Matters" for more information.

The following NMEs have been submitted for regulatory review in at least one of the major geographies for potential use in the disease described. The first quarter in which each NME initially was submitted in any major geography for any indication is shown in parentheses:

Lasmiditan (Q4 2018)—an oral 5-HT_{1F} agonist for the acute treatment of migraine. In the U.S., Lasmiditan is protected by a compound patent (2025).

Nasal glucagon* (Q2 2018)—a glucagon nasal powder formulation for the treatment of severe hypoglycemia in patients with diabetes treated with insulin. In the U.S., nasal glucagon is protected by a delivery device patent (2034), with data protection (3.5 years) expected upon approval. In Europe, nasal glucagon is protected by a delivery device patent (2034), with data protection (6 years) expected upon approval.

The following NMEs and diagnostic agent are currently in Phase III clinical trial testing for potential use in the diseases described but have not yet been submitted for approval for any indication. The first quarter in which each NME and the diagnostic agent initially entered Phase III for any indication is shown in parentheses:

Flortaucipir (Q3 2015)**—a positron emission tomography (PET) tracer intended to image tau (or neurofibrillary) tangles in the brain, which are an indicator of Alzheimer's disease.

Mirikizumab* (Q2 2018)—a monoclonal antibody designed for the treatment of autoimmune diseases.

Pegilodecakin* (Q1 2017)—a PEGylated IL-10, which has demonstrated clinical benefit as a single agent, and in combination with both chemotherapy and checkpoint inhibitor therapy, across several tumor types.

Solanezumab* (Q2 2009)—an anti-amyloid beta monoclonal antibody for the treatment of preclinical Alzheimer's disease.

Tanezumab* (Q3 2008)—an anti-nerve growth factor monoclonal antibody for the treatment of osteoarthritis pain, chronic low back pain, and cancer pain (in collaboration with Pfizer Inc.).

Tirzepatide* (Q4 2018)—a long-acting, combination therapy of glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide 1 for the treatment of type 2 diabetes.

Ultra-rapid Lispro* (Q3 2017)—an ultra-rapid insulin for the treatment of type 1 and type 2 diabetes.

* Biologic molecule subject to the U.S. Biologics Price Competition and Innovation Act

** Diagnostic agent

The following table reflects the status of the recently approved products, NMEs, and diagnostic agent set forth above, as well as certain other developments to our late-stage pipeline since January 1, 2018:

Compound	Indication	U.S.	Europe	Japan	Developments
Endocrinology					
Nasal glucagon	Severe hypoglycemia	Submitted		Phase III	Submitted to U.S. Food and Drug Administration (FDA) in second quarter of 2018. Submitted to European regulatory authorities in third quarter of 2018.
Tirzepatide	Type 2 diabetes	Phase III			Phase III trials were initiated during the fourth quarter of 2018.
Ultra-rapid Lispro	Type 1 and 2 diabetes	Phase III			In the fourth quarter of 2018, announced Phase III trials met primary efficacy endpoint. Submission to regulatory authorities expected in 2019.
Immunology					
Mirikizumab	Psoriasis	Phase III			Phase III trials were initiated during the second quarter of 2018.
	Ulcerative colitis	Phase III			Phase III trial was initiated during the second quarter of 2018.
Olumiant	Rheumatoid arthritis	Launched			Granted approval of 2mg dose by FDA and launched in U.S. in second quarter of 2018.
	Atopic dermatitis	Phase III			In the first quarter of 2019, announced Phase III trials met primary endpoint. Additional Phase III trials are ongoing.
	Systemic lupus erythematosus	Phase III			Phase III trials were initiated during the third quarter of 2018. Granted Fast Track designation[1] from the FDA in fourth quarter of 2018.

Compound	Indication	U.S.	Europe	Japan	Developments
Neuroscience					
Emgality	Cluster headache	Submitted		Phase III	In the second quarter of 2018, announced Phase III trial met primary endpoint for episodic cluster headache. Received Breakthrough Therapy Designation[2] in the third quarter of 2018. Submitted to FDA in fourth quarter of 2018 and to European regulatory authorities in first quarter of 2019. Granted Priority Review[3] from FDA in first quarter of 2019. A separate Phase III trial did not meet primary endpoint for chronic cluster headache.
	Migraine prevention	Launched		Phase III	Approved and launched in the U.S. in the third and fourth quarters of 2018, respectively. Approved and launched in Europe in the fourth quarter of 2018 and first quarter of 2019, respectively.
Flortaucipir	Alzheimer's disease	Phase III			In the third quarter of 2018, announced Phase III trial met primary endpoints. In discussions with regulatory authorities to determine next steps.
Lanabecestat	Early and mild Alzheimer's disease	Discontinued			Phase III trials discontinued in second quarter of 2018.
Lasmiditan	Migraine	Submitted	Phase III		Submitted to FDA in fourth quarter of 2018. Phase III trials are ongoing.
Solanezumab	Preclinical Alzheimer's disease	Phase III			Phase III trial is ongoing.
Tanezumab	Osteoarthritis pain	Phase III			In the third quarter of 2018 and the first quarter of 2019, announced multiple Phase III trials met primary endpoints. We anticipate additional readouts from the program to be available in 2019.
	Chronic low back pain	Phase III			In the first quarter of 2019, announced Phase III trial met primary endpoint for the 10mg dose and did not meet primary endpoint on the 5mg dose. We anticipate additional readouts from the program to be available in 2019.
	Cancer pain	Phase III			Phase III trial is ongoing.
Oncology					
Lartruvo	Soft tissue sarcoma	Launched		Phase III	Granted accelerated approval by the FDA based on Phase II data and launched in the U.S. in 2016. Granted conditional approval and launched in Europe in 2016. In the first quarter of 2019, announced confirmatory phase III trial did not meet primary endpoint. As trial did not confirm clinical benefit, we are suspending promotion and are in discussions with global regulators to determine next steps.
Pegilodecakin	Pancreatic cancer	Phase III			Acquired with ARMO in the second quarter of 2018. Phase III trial is ongoing. See Note 3 to the consolidated financial statements for information on the acquisition.
Verzenio	Adjuvant breast cancer	Phase III			Phase III trial is ongoing.
	Metastatic breast cancer	Launched	Approved		Approved in Europe and Japan in the fourth quarter of 2018.

[1] The FDA's fast track designation is designed to expedite the development and review of new therapies to treat serious conditions and address unmet medical needs.

[2] The Breakthrough Therapy Designation is designed to expedite the development and review of potential medicines that are intended to treat a serious condition where preliminary clinical evidence indicates that the treatment may demonstrate substantial improvement over available therapy on a clinically significant endpoint.

[3] Priority Review is designed to expedite the review of potential medicines that, if approved, would be significant improvements in the safety or effectiveness of the treatment, diagnosis, or prevention of serious conditions when compared to standard applications.

There are many difficulties and uncertainties inherent in human pharmaceutical research and development and the introduction of new products. There is a high rate of failure inherent in new drug discovery and development. To bring a drug from the discovery phase to market can take over a decade and often costs in excess of $2 billion. Failure can occur at any point in the process, including in later stages after substantial investment. As a result, most funds invested in research programs will not generate financial returns. New product candidates that appear promising in development may fail to reach the market or may have only limited commercial success because of efficacy or safety concerns, inability to obtain or maintain necessary regulatory approvals or payer reimbursement or coverage, limited scope of approved uses, changes in the relevant treatment standards or the availability of new

or better competitive products, difficulty or excessive costs to manufacture, or infringement of the patents or intellectual property rights of others. Regulatory agencies continue to establish increasingly high hurdles for the efficacy and safety of new products. Delays and uncertainties in drug approval processes can result in delays in product launches and lost market opportunity. In addition, it can be very difficult to predict revenue growth rates of new products.

We manage research and development spending across our portfolio of molecules, and a delay in, or termination of, any one project will not necessarily cause a significant change in our total research and development spending. Due to the risks and uncertainties involved in the research and development process, we cannot reliably estimate the nature, timing, and costs of the efforts necessary to complete the development of our research and development projects, nor can we reliably estimate the future potential revenue that will be generated from a successful research and development project. Each project represents only a portion of the overall pipeline, and none is individually material to our consolidated research and development expense. While we do accumulate certain research and development costs on a project level for internal reporting purposes, we must make significant cost estimations and allocations, some of which rely on data that are neither reproducible nor validated through accepted control mechanisms. Therefore, we do not have sufficiently reliable data to report on total research and development costs by project, by preclinical versus clinical spend, or by therapeutic category.

Other Matters

Elanco Animal Health

On September 24, 2018, Elanco Animal Health Incorporated (Elanco), a subsidiary, completed its IPO of 72.3 million shares of its common stock, which represents 19.8 percent of Elanco's outstanding shares, at $24 per share. In addition, Elanco completed a debt offering and entered into a term loan facility during the third quarter of 2018. See Notes 3 and 10 to the consolidated financial statements for additional details.

We have announced our intent to divest our remaining 293,290,000 shares of Elanco common stock through an exchange offer and on February 8, 2019, Elanco filed a registration statement on Form S-4 with the Securities and Exchange Commission (SEC). In the exchange offer, our shareholders can exchange all, some, or none of their shares of our common stock for shares of Elanco common stock owned by us, subject to the specific terms and conditions of the offer described in Elanco's registration statement. The completion of the exchange offer is subject to certain conditions, including at least 146,645,000 shares of Elanco common stock being distributed in exchange for shares of our common stock validly tendered in the exchange offer, and the receipt of an opinion of counsel that the exchange offer will qualify for tax-free treatment to us and our participating shareholders. However, the conditions of the exchange offer may not be satisfied; we may exchange less than our entire interest in Elanco; or we may decide to waive one or more of these conditions, to the extent legally permissible, and consummate the exchange offer even if all of the conditions are not satisfied. If the exchange offer is not fully subscribed, we intend, from time to time, to complete subsequent exchange offers and/or pro rata spin-off of our remaining interest in Elanco.

Lartruvo

In January 2019, we announced that we are suspending promotion of Lartruvo because the ANNOUNCE study did not meet the primary endpoint of overall survival. We are working with global regulators to determine the appropriate next steps. We expect to incur a charge in the first quarter of 2019 related to the suspension of promotion for Lartruvo. The exact amount of the charge has not yet been determined, but is estimated to be approximately $80 million (pre-tax), or approximately $0.13 per share (after tax). Revenue related to Lartruvo was $304.7 million in 2018.

Patent Matters

We depend on patents or other forms of intellectual-property protection for most of our revenue, cash flows, and earnings.

We lost patent exclusivity for the bipolar mania indication for Zyprexa® in Japan in April 2016. Generic versions of Zyprexa launched in Japan in June 2016. The loss of exclusivity for Zyprexa in Japan has caused a rapid and severe decline in revenue for the product.

We lost our patent exclusivity for Strattera® in the U.S. in May 2017, and generic versions of Strattera were approved in the same month. Following a settlement related to the compound patent challenge for Effient®, generic products launched in the U.S. in the third quarter of 2017. The entry of generic competition for these products has caused a

rapid and severe decline in revenue, which, in the aggregate, has had a material adverse effect on our consolidated results of operations and cash flows.

Our compound patent protection for Cialis® (tadalafil) and Adcirca® (tadalafil) expired in major European markets and the U.S. in November 2017; however, in the U.S., we were granted pediatric exclusivity through May 2018. Pursuant to a settlement agreement related to our unit dose patent in the U.S., generic tadalafil entered the U.S. market in September 2018. We expect that the entry of additional generic competition into these markets following the loss of exclusivity will continue to cause a rapid and severe decline in revenue, which will, in the aggregate, have a material adverse effect on our consolidated results of operations and cash flows.

Our formulation patents for Forteo® expired in December 2018 and use patents will expire in August 2019 in major European markets and the U.S. Both the formulation patent and the use patent expire in 2019 in Japan. While it is difficult to estimate the severity of the impact of generic and/or biosimilar competition in these markets, we expect a rapid and severe decline in revenue in the U.S. as a result of generic competition when the U.S. patents expire. Outside the U.S., we expect a decline in revenue following patent expirations; however the decline may not be rapid and severe. In the aggregate, we expect that the decline in revenue will have a material adverse effect on our consolidated results of operations and cash flows.

The Alimta® vitamin regimen patents, which provide us with patent protection for Alimta through June 2021 in Japan and major European countries, and through May 2022 in the U.S., have been challenged in each of these jurisdictions. Our vitamin regimen patents have also been challenged in other smaller European jurisdictions. Our compound patent for Alimta expired in the U.S. in January 2017, and expired in major European countries and Japan in December 2015. We expect that the entry of generic competition for Alimta following the loss of effective patent protection will cause a rapid and severe decline in revenue for the product, which will, in the aggregate, have a material adverse effect on our consolidated results of operations and cash flows. See Note 15 to the consolidated financial statements for a more detailed account of the legal proceedings currently pending in the U.S., Europe, and Japan regarding our Alimta patents.

The compound patent for Humalog® (insulin lispro) has expired in major markets. Global regulators have different legal pathways to approve similar versions of insulin lispro. A similar version of insulin lispro launched in the U.S. in the second quarter of 2018 and in certain European markets in 2017. While it is difficult to estimate the severity of the impact of similar insulin lispro products entering the market, we do not expect and have not experienced a rapid and severe decline in revenue; however, we expect additional pricing pressure and some loss of market share that would continue over time.

Foreign Currency Exchange Rates

As a global company with substantial operations outside the U.S., we face foreign currency risk exposure from fluctuating currency exchange rates, primarily the U.S. dollar against the euro and Japanese yen. While we manage a portion of these exposures through hedging and other risk management techniques, significant fluctuations in currency rates can have a substantial impact, either positive or negative, on our revenue, cost of sales, and operating expenses. While there is uncertainty in the future movements in foreign exchange rates, fluctuations in these rates could negatively impact our future consolidated results of operations and cash flows.

The impact of the Venezuelan financial crisis, including the significant deterioration of the bolívar, resulted in a charge of $203.9 million in 2016. See Note 17 to the consolidated financial statements for additional information related to the charge. As of December 31, 2018, our Venezuelan subsidiaries represented a *de minimis* portion of our consolidated assets and liabilities. We continue to monitor other deteriorating economies and it is possible that additional charges may be recorded in the future. Any additional charges are not expected to have a material adverse effect on our future consolidated results of operations.

Trends Affecting Pharmaceutical Pricing, Reimbursement, and Access

United States

In the U.S., public concern over access to and affordability of pharmaceuticals continues to drive the regulatory and legislative debate. These policy and political issues increase the risk that taxes, fees, rebates, or other cost control measures may be enacted to manage federal and state budgets. Key health policy proposals affecting biopharmaceuticals include a reduction in biologic data exclusivity, modifications to Medicare Parts B and D, language that would allow the Department of Health and Human Services to negotiate prices for biologics and drugs in Medicare, proposals that would require biopharmaceutical manufacturers to disclose proprietary drug pricing information, and state-level proposals related to prescription drug prices and reducing the cost of pharmaceuticals purchased by government health care programs. California and several other states have enacted legislation related to prescription drug pricing transparency and it is unclear the effect this legislation will have on our business. The Bipartisan Budget Act, enacted in February 2018, requires manufacturers of brand-name drugs, biologics, and biosimilars to pay a 70 percent discount in the Medicare Part D Coverage Gap, up from the previous 50 percent discount. This increase in Coverage Gap discounts became effective at the beginning of 2019. We expect this increase in the Coverage Gap discounts to negatively impact our results of operations by approximately $200 million in 2019. In May 2018, the White House released "American Patients First: The Trump Administration Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs" (Blueprint). The Administration's corresponding request for information included more than 30 proposed policy changes. We believe the effect of certain of these proposals would be positive for our business while others would have negative consequences to our business. The effect of these proposals, and those that extend beyond the Blueprint, will depend on the details and timing of the final legislation, regulation, or guidance and could lead to a wide range of outcomes. Some of these outcomes could have a material adverse effect on our consolidated results of operations and cash flows. In January 2019, the Department of Health and Human Services released a proposed rule to reform the system of rebates paid to Medicare Part D plans, Medicaid Managed Care organizations, and pharmacy benefit managers. We are currently reviewing the proposed rule, the impact of which is uncertain at this time.

In the private sector, consolidation and integration among healthcare providers is also a major factor in the competitive marketplace for human pharmaceuticals. Health plans, pharmacy benefit managers, wholesalers, and other supply chain stakeholders have been consolidating into fewer, larger entities, increasingly through vertical integration, thus enhancing their purchasing strength and importance. Payers typically maintain formularies which specify coverage (the conditions under which drugs are included on a plan's formulary) and reimbursement (the associated out-of-pocket cost to the consumer). Formulary placement can lead to reduced usage of a drug for the relevant patient population due to coverage restrictions, such as prior authorizations and formulary exclusions, or due to reimbursement limitations that result in higher consumer out-of-pocket cost, such as non-preferred co-pay tiers, increased co-insurance levels and higher deductibles. Consequently, pharmaceutical companies compete for formulary placement not only on the basis of product attributes such as greater efficacy, fewer side effects, or greater patient ease of use, but also by providing rebates. Value-based agreements are another tool which may be utilized between payers and pharmaceutical companies as formulary placement and pricing are negotiated. Price is an increasingly important factor in formulary decisions, particularly in treatment areas in which the payer has taken the position that multiple branded products are therapeutically comparable. These downward pricing pressures could continue to negatively affect future consolidated results of operations and cash flows.

The main coverage expansion provisions of the Affordable Care Act (ACA) are currently in effect through both state-based exchanges and the expansion of Medicaid. A trend has been the prevalence of benefit designs containing high out-of-pocket costs for patients, particularly for pharmaceuticals. In addition to the coverage expansions, many employers in the commercial market, driven in part by ACA changes such as the 2022 implementation of the excise tax on employer-sponsored health care coverage for which there is an excess benefit (the so-called "Cadillac tax"), continue to evaluate strategies such as private exchanges and wider use of consumer-driven health plans to reduce their healthcare liabilities over time. Federal legislation, litigation, or administrative actions to repeal or modify some or all of the provisions of the ACA could have a material adverse effect on our consolidated results of operations and cash flows. At the same time, the broader paradigm shift towards performance-based reimbursement and the launch of several value-based purchasing initiatives have placed demands on the pharmaceutical industry to offer products with proven real-world outcomes data and a favorable economic profile.

International

International operations also are generally subject to extensive price and market regulations. Cost-containment measures exist in a number of countries, including additional price controls and mechanisms to limit reimbursement for our products. Such policies are expected to increase in impact and reach, given the pressures on national and regional health care budgets that come from a growing aging population and ongoing economic challenges. As additional reforms are finalized, we will assess their impact on future revenues. In addition, governments in many emerging markets are becoming increasingly active in expanding health care system offerings. Given the budget challenges of increasing health care coverage for citizens, policies may be proposed that promote generics and biosimilars only and reduce current and future access to branded human pharmaceutical products.

Tax Matters

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Changes in the relevant tax laws, regulations, administrative practices, and interpretations could adversely affect our future effective tax rates. The U.S. recently enacted tax reform legislation, including the 2017 Tax Act, significantly revising U.S. tax law, and other countries are actively considering or enacting tax law changes. Further, organizations such as the Organisation for Economic Co-operation and Development and the European Commission are active regarding tax-related matters, which could influence international tax policy in countries in which we operate. While outcomes of these initiatives continue to develop and remain uncertain, modifications to key elements of the U.S. or international tax framework could have a material adverse effect on our consolidated results of operations and cash flows.

Our accounting for the effects of the 2017 Tax Act, signed into law in December 2017, is complete (see Note 13 to the consolidated financial statements for further information related to the 2017 Tax Act); however, we expect that additional guidance will be issued in 2019 which may materially affect our assumptions and estimates used to record our U.S. federal and state income tax expense resulting from the 2017 Tax Act. Refer to "Results of Operations - Financial Condition" for discussion of the impact of the 2017 Tax Act on our liquidity.

Acquisitions

We strategically invest in external research and technologies that we believe to complement and strengthen our own efforts. These investments can take many forms, including licensing arrangements, collaborations, and acquisitions. We view our business development activity as an important way to achieve our strategies, as we seek to bolster our pipeline and enhance shareholder value. We continue to evaluate business development transactions that have the potential to strengthen our business. Since January 1, 2019, we have acquired Loxo Oncology, Inc. (Loxo). for a purchase price of $235 per share, or approximately $8 billion. We also entered into a license and collaboration agreement with AC Immune SA for an upfront fee of CHF80.0 million and $50.0 million in exchange for a note, convertible to equity at a premium. See Note 3 to the consolidated financial statements for further discussion regarding our recent acquisitions of businesses and assets.

Operating Results—2018

Revenue

The following table summarizes our revenue activity by region:

	Year Ended December 31,		
	2018	2017	Percent Change
U.S.[1]	**$ 13,875.2**	$ 12,785.1	8
Outside U.S.	**10,680.5**	10,086.3	6
Revenue	**$ 24,555.7**	$ 22,871.3	7

Numbers may not add due to rounding.

[1] U.S. revenue includes revenue in Puerto Rico.

The following are components of the change in revenue compared with the prior year:

	2018 vs. 2017		
	U.S.	Outside U.S.	Consolidated
Volume	9 %	7 %	8 %
Price	(1)%	(3)%	(1)%
Foreign exchange rates	— %	2 %	1 %
Percent change	8 %	6 %	7 %

Numbers may not add due to rounding.

In the U.S., the revenue increase in 2018 was driven by increased volume for newer pharmaceutical products, including Trulicity®, Basaglar®, Taltz®, Verzenio, and Jardiance®. The increase in revenue was partially offset by decreased volume for products that have lost exclusivity, including Cialis, Effient, and Strattera, as well as lower realized prices for several pharmaceutical products, including Trulicity, Basaglar, Forteo, and Taltz.

Outside the U.S., the revenue increase in 2018 was due to increased volume for several newer pharmaceutical products, primarily driven by Trulicity, Olumiant, and Taltz and, to a lesser extent, the favorable impact of foreign exchange rates. The increase in revenue was partially offset by lower realized prices for several pharmaceutical products.

The following table summarizes our revenue activity in 2018 compared with 2017:

	Year Ended December 31,				
	2018			2017	
Product	U.S.[1]	Outside U.S.	Total	Total	Percent Change
Trulicity	**$ 2,515.8**	**$ 683.3**	**$ 3,199.1**	$ 2,029.8	58
Humalog	**1,787.8**	**1,208.7**	**2,996.5**	2,865.2	5
Alimta	**1,131.0**	**1,001.9**	**2,132.9**	2,062.5	3
Cialis	**1,129.2**	**722.7**	**1,851.8**	2,323.1	(20)
Forteo	**757.9**	**817.7**	**1,575.6**	1,749.0	(10)
Humulin®	**910.2**	**421.2**	**1,331.4**	1,335.4	—
Taltz	**738.7**	**198.7**	**937.5**	559.2	68
Cyramza®	**291.5**	**529.9**	**821.4**	758.3	8
Basaglar	**622.8**	**178.5**	**801.2**	432.1	85
Cymbalta®	**54.3**	**653.7**	**708.0**	757.2	(6)
Jardiance[2]	**400.2**	**258.1**	**658.3**	447.5	47
Erbitux®	**531.6**	**103.8**	**635.3**	645.9	(2)
Trajenta®[3]	**224.2**	**350.5**	**574.7**	537.9	7
Zyprexa	**36.2**	**435.1**	**471.3**	581.2	(19)
Strattera	**89.7**	**361.1**	**450.8**	618.2	(27)
Other human pharmaceutical products	**1,131.1**	**1,136.2**	**2,267.4**	1,694.3	34
Animal health products	**1,523.0**	**1,619.5**	**3,142.5**	3,085.6	2
Revenue	**$ 13,875.2**	**$ 10,680.5**	**$ 24,555.7**	$ 22,871.3	7

Numbers may not add due to rounding.

[1] U.S. revenue includes revenue in Puerto Rico.

[2] Jardiance revenue includes Glyxambi® and Synjardy®.

[3] Trajenta revenue includes Jentadueto®.

Revenue of Trulicity, a treatment for type 2 diabetes, increased 56 percent in the U.S., driven by higher demand. Revenue outside the U.S. increased 63 percent primarily driven by increased volume and, to a lesser extent, the favorable impact of foreign exchange rates, partially offset by lower realized prices.

Revenue of Humalog, our injectable human insulin analog for the treatment of diabetes, increased 4 percent in the U.S., primarily driven by increased demand and, to a lesser extent, higher realized prices due to changes in estimates to rebates and discounts. Revenue outside the U.S. increased 5 percent, driven by increased volume and, to a lesser extent, the favorable impact of foreign exchange rates, partially offset by lower realized prices. A similar version of insulin lispro launched in the U.S. in the second quarter of 2018 and in certain European markets in 2017. While it is difficult to estimate the severity of the impact of similar insulin lispro products entering the market, we do not expect and have not experienced a rapid severe decline in revenue; however, we expect additional pricing pressure and some loss of market share that would continue over time.

Revenue of Alimta, a treatment for various cancers, increased 9 percent in the U.S., driven by increased demand and higher realized prices. Revenue outside the U.S. decreased 3 percent, driven by lower volume due to competitive pressure and the loss of exclusivity in certain European countries, including Germany, and lower realized prices, partially offset by the favorable impact of foreign exchange rates. We have faced and remain exposed to generic entry in multiple countries, which has eroded revenue and is likely to continue to erode revenue in those countries from current levels.

Revenue of Cialis, a treatment for erectile dysfunction and benign prostatic hyperplasia, decreased 17 percent in the U.S., driven by decreased demand primarily due to the entry of generic tadalafil, partially offset by higher realized prices. Revenue outside the U.S. decreased 25 percent, driven by the loss of exclusivity in Europe. We lost our compound patent protection for Cialis in major European markets in November 2017 and U.S. exclusivity ended in late September 2018. See "Results of Operations - Executive Overview - Other Matters - Patent Matters" for more information. In addition to competition from generic tadalafil, we also currently face competition from generic sildenafil, which accelerated during 2018. We expect that the entry of generic competition due to the loss of exclusivity will continue to cause a rapid and severe decline in revenue.

Revenue of Forteo, an injectable treatment for osteoporosis in postmenopausal women and men at high risk for fracture and for glucocorticoid-induced osteoporosis in men and postmenopausal women, decreased 21 percent in the U.S., driven by decreased demand, and, to a lesser extent, lower realized prices. Revenue outside the U.S. increased 4 percent, driven by increased volume and the favorable impact of foreign exchange rates, partially offset by lower realized prices. Our formulation patent for Forteo expired in December 2018 in major European markets and the U.S. Our use patent for Forteo expires in August 2019 in major European markets and the U.S. Both the formulation patent and the use patent expire in 2019 in Japan. While it is difficult to estimate the severity of the impact of generic and/or biosimilar competition in these markets, we expect a rapid and severe decline in revenue in the U.S. as a result of generic competition when the U.S. patents expire. Outside the U.S., we expect a decline in revenue following patent expirations, however the decline may not be rapid and severe. See "Executive Overview - Other Matters - Patent Matters" for more information.

Revenue of Humulin, an injectable human insulin for the treatment of diabetes, increased 3 percent in the U.S., driven by increased volume, partially offset by lower realized prices primarily due to changes in segment mix and, to a lesser extent, the impact of patient affordability programs. Revenue outside the U.S. decreased 7 percent, primarily driven by decreased volume and, to a lesser extent, lower realized prices.

Revenue of Taltz, a treatment for moderate-to-severe plaque psoriasis and active psoriatic arthritis, increased 52 percent in the U.S., primarily driven by increased demand, partially offset by lower realized prices. Revenue outside the U.S. increased $125.6 million, driven by increased volume from recent launches, partially offset by lower realized prices.

Revenue of Cyramza, a treatment for various cancers, increased 5 percent in the U.S., driven by increased demand and, to a lesser extent, higher realized prices. Revenue outside the U.S. increased 10 percent, primarily due to increased volume and, to a lesser extent, the favorable impact of foreign exchange rates, partially offset by lower realized prices.

Revenue of Basaglar, a long-acting human insulin analog for the treatment of diabetes, increased $311.7 million in the U.S., driven by increased demand, partially offset by lower realized prices due to increased volume in Medicare Part D. Revenue outside the U.S. increased $57.5 million primarily driven by increased volume.

Revenue of Cymbalta, a product for the treatment of major depressive disorder, diabetic peripheral neuropathic pain, generalized anxiety disorder, chronic musculoskeletal pain, and the management of fibromyalgia, decreased 53 percent in the U.S. driven by decreased volume, partially offset by higher realized prices. Revenue outside the U.S. increased 2 percent, driven by increased volume in Japan.

Worldwide animal health revenue increased 2 percent, driven by higher prices, partially offset by lower volume. The overall increase in revenue included increased revenue in the companion animal disease prevention, future protein and health, and companion animal therapeutics product categories, partially offset by decreased revenue of products that are being exited.

Gross Margin, Costs, and Expenses

Gross margin as a percent of total revenue was 73.8 percent in 2018, an increase of 0.7 percentage points compared with 2017, primarily due to manufacturing efficiencies and lower amortization expenses, offset by the impact of foreign exchange rates on international inventories sold, the timing of manufacturing production, and the negative impact of price on revenue.

Research and development expenses decreased 1 percent to $5.31 billion in 2018 driven by lower development expenses for lanabecestat, partially offset by higher expenses for other late-stage assets.

Marketing, selling, and administrative expenses decreased 1 percent to $6.63 billion in 2018 due to lower expenses related to late life-cycle products, partially offset by increased marketing expenses for newer products.

Both research and development expenses and marketing, selling, and administrative expenses benefited during 2018 from actions taken to reduce our cost structure.

We recognized acquired IPR&D charges of $1.98 billion in 2018 primarily related to the acquisition of ARMO and the collaboration with Dicerna. In 2017, we recognized acquired IPR&D charges of $1.11 billion primarily related to the acquisition of CoLucid.

We recognized asset impairment, restructuring, and other special charges of $482.0 million in 2018. The charges are primarily associated with asset impairments related to the sale of the Posilac (rbST) brand and the related sale of the Augusta, Georgia manufacturing site, as well as the suspension of commercial activities for Imrestor. The charges also include expenses associated with the initial public offering and separation of the Elanco animal health business, as well as efforts to reduce our cost structure. In 2017, we recognized $1.67 billion of asset impairment, restructuring, and other special charges primarily associated with efforts to reduce our cost structure, including the U.S. voluntary early retirement program, asset impairments related to lower projected revenue for Posilac (rbST), and asset impairments and other special charges related to product rationalizations and site closures resulting from our acquisition and integration of Novartis Animal Health (Novartis AH).

Other—net, (income) expense was income of $74.8 million in 2018 compared to income of $300.5 million in 2017 driven by lower net gains on sales of investments.

During 2018, we recorded income tax expense of $563.7 million while earning $3.80 billion of income before income taxes. We recognized $313.3 million of income tax benefit primarily due to measurement period adjustments to the Toll Tax and GILTI. During 2017, we recorded income tax expense of $2.40 billion, which included a provisional tax charge of $1.91 billion, despite earning $2.20 billion of income before income taxes. The provisional tax charge was a result of the 2017 Tax Act, including the Toll Tax.

Operating Results—2017

Financial Results

The following table summarizes our key operating results:

	Year Ended December 31,		Percent Change
	2017	2016	
Revenue	$ 22,871.3	$ 21,222.1	8
Gross margin	16,720.5	15,512.0	8
Gross margin as a percent of revenue	73.1%	73.1%	
Operating expense	$ 12,037.4	$ 11,838.3	2
Acquired in-process research and development	1,112.6	30.0	NM
Asset impairment, restructuring, and other special charges	1,673.6	382.5	NM
Income before income taxes	2,197.4	3,374.0	(35)
Income taxes	2,401.5	636.4	NM
Net income (loss)	(204.1)	2,737.6	NM
Earnings (loss) per share	(0.19)	2.58	NM

NM - not meaningful

Revenue and gross margin increased in 2017. The increase in operating expense in 2017 was primarily due to an increase in marketing, selling, and administrative expense. Income before income taxes decreased in 2017 as higher asset impairment, restructuring, and other special charges, acquired IPR&D charges and, to a lesser extent, higher operating expense were partially offset by a higher gross margin. Tax expense exceeded income before income taxes in 2017 as a result of the 2017 Tax Act, resulting in a net loss for the year.

Certain items affect the comparisons of our 2017 and 2016 results. The 2017 highlighted items are summarized in the "Results of Operations - Executive Overview" section. The 2016 highlighted items are summarized as follows:

Acquired IPR&D (Note 3 to the consolidated financial statements)

- We recognized acquired IPR&D charges of $30.0 million (pretax), or $0.02 per share, related to upfront fees paid in connection with a collaboration agreement with AstraZeneca to co-develop MEDI1814, a potential disease-modifying treatment for Alzheimer's disease.

Asset Impairment, Restructuring, and Other Special Charges (Note 5 to the consolidated financial statements)

- We recognized charges of $382.5 million (pretax), or $0.29 per share, related to integration and severance costs related to the acquisition of Novartis AH, other global severance costs, and asset impairments primarily related to the closure of an animal health manufacturing facility in Ireland.

Other-Net, (Income) Expense (Note 17 to the consolidated financial statements)

- We recognized charges of $203.9 million (pretax), or $0.19 per share, related to the impact of the Venezuelan financial crisis, including the significant deterioration of the bolívar.

Revenue

The following table summarizes our revenue activity by region:

	Year Ended December 31,		Percent Change
	2017	2016	
U.S. [1]	$ 12,785.1	$ 11,506.2	11
Outside U.S.	10,086.3	9,715.9	4
Revenue	$ 22,871.3	$ 21,222.1	8

Numbers may not add due to rounding.

[1] U.S. revenue includes revenue in Puerto Rico.

The following are components of the change in revenue compared to the prior year:

	2017 vs. 2016		
	U.S.	Outside U.S.	Consolidated
Volume	6%	5 %	6%
Price	5%	(1)%	2%
Foreign exchange rates	—%	— %	—%
Percent change	11%	4 %	8%

Numbers may not add due to rounding.

In the U.S., the revenue increase in 2017 was driven by increased volume for newer pharmaceutical products, including Trulicity, Taltz, Basaglar, Lartruvo, and Jardiance, and higher realized prices for several pharmaceutical products, primarily Forteo and Cialis, as well as increased volume for companion animal products from the acquisition of Boehringer Ingelheim Vetmedica, Inc.'s U.S. feline, canine, and rabies vaccine portfolio and other related assets (BIVIVP). The increase in revenue was partially offset by decreased volume due to loss of exclusivity for Strattera and Effient, as well as decreased demand for Cialis and food animal products. Cymbalta revenue declined, as 2016 revenue benefited from reductions to the reserve for expected product returns of approximately $175 million.

Outside the U.S., the revenue increase in 2017 was due to increased volume for several new pharmaceutical products, primarily driven by Trulicity and Cyramza. The increase in revenue was partially offset by competitive pressure and the loss of exclusivity for Alimta in several countries and lower volume from the loss of exclusivity for Zyprexa in Japan.

The following table summarizes our revenue activity in 2017 compared with 2016:

	Year Ended December 31,				
	2017			2016	
Product	U.S.[1]	Outside U.S.	Total	Total	Percent Change
Humalog	$ 1,717.8	$ 1,147.4	$ 2,865.2	$ 2,768.8	3
Cialis	1,358.6	964.5	2,323.1	2,471.6	(6)
Alimta	1,034.3	1,028.2	2,062.5	2,283.3	(10)
Trulicity	1,609.8	419.9	2,029.8	925.5	NM
Forteo	965.2	783.8	1,749.0	1,500.0	17
Humulin	884.6	450.7	1,335.4	1,365.9	(2)
Cyramza	278.8	479.6	758.3	614.1	23
Cymbalta	114.9	642.2	757.2	930.5	(19)
Erbitux	541.7	104.2	645.9	687.0	(6)
Strattera	284.9	333.3	618.2	854.7	(28)
Zyprexa	75.5	505.7	581.2	725.3	(20)
Taltz	486.0	73.2	559.2	113.1	NM
Trajenta[2]	213.2	324.7	537.9	436.6	23
Jardiance[3]	290.4	157.0	447.5	201.9	NM
Basaglar	311.1	121.0	432.1	86.1	NM
Effient	340.1	48.8	388.9	535.2	(27)
Other human pharmaceutical products	767.0	927.5	1,694.3	1,564.3	8
Animal health products	1,511.1	1,574.5	3,085.6	3,158.2	(2)
Revenue	$ 12,785.1	$ 10,086.3	$ 22,871.3	$ 21,222.1	8

Numbers may not add due to rounding.

[1] U.S. revenue includes revenue in Puerto Rico.

[2] Trajenta revenue includes Jentadueto.

[3] Jardiance revenue includes Glyxambi and Synjardy.

NM - not meaningful

Revenue of Humalog increased 2 percent in the U.S., primarily driven by higher realized prices due to changes in estimates for rebates and discounts, which decreased revenue in 2016 and increased revenue in 2017. Revenue outside the U.S. increased 6 percent, driven by increased volume and, to a lesser extent, higher realized prices, partially offset by the unfavorable impact of foreign exchange rates.

Revenue of Cialis decreased 8 percent in the U.S., driven by decreased demand partially offset by higher realized prices. Revenue outside the U.S. decreased 4 percent, driven by decreased volume, partially offset by higher realized prices.

Revenue of Alimta decreased 6 percent in the U.S., driven by decreased demand due to competitive pressure. Revenue outside the U.S. decreased 13 percent, driven by competitive pressure and the loss of exclusivity in several countries.

Revenue of Trulicity increased 118 percent in the U.S., driven by increased share of market for Trulicity and growth in the GLP-1 class. Revenue outside the U.S. increased 123 percent.

Revenue of Forteo increased 25 percent in the U.S., driven by higher realized prices and increased volume, primarily due to wholesaler buying patterns. Revenue outside the U.S. increased 7 percent, driven by increased volume, partially offset by the unfavorable impact of foreign exchange rates and lower realized prices.

Revenue of Humulin increased 3 percent in the U.S., driven by higher realized prices. Revenue outside the U.S. decreased 11 percent, driven primarily by decreased volume and lower realized prices.

Revenue of Cyramza increased 3 percent in the U.S., driven by increased volume. Revenue outside the U.S. increased 39 percent, primarily due to strong volume growth in Japan, partially offset by lower realized prices and, to a lesser extent, the unfavorable impact of foreign exchange rates.

Revenue of Cymbalta decreased 57 percent in the U.S., driven by reductions to the reserve for expected product returns, which increased revenue by approximately $175 million in 2016. Revenue outside the U.S. decreased 3 percent driven by the loss of exclusivity in Canada and Europe, partially offset by increased volume in Japan.

Revenue of Erbitux, a treatment for various cancers, decreased 7 percent in the U.S. in 2017. The decrease was due to increased competition from immuno-oncology products.

Revenue of Strattera, a treatment for attention-deficit hyperactivity disorder, decreased 47 percent in the U.S., driven by the loss of exclusivity in the second quarter of 2017, partially offset by higher realized prices. The entry of generic competition following the loss of effective patent protection has caused a rapid and severe decline in revenue. Revenue outside the U.S. increased 4 percent, driven by increased volume in Japan, partially offset by lower realized prices and the unfavorable impact of foreign exchange rates, primarily the Japanese yen.

Worldwide food animal revenue decreased 8 percent, primarily driven by market access and competitive pressure in the U.S. for Posilac (rbST) and Optaflexx®, respectively. Worldwide companion animal revenue increased 10 percent, driven by the inclusion of $216.7 million in revenue from the acquisition of BIVIVP, partially offset by competitive pressure.

Gross Margin, Costs, and Expenses

Gross margin as a percent of total revenue was 73.1 percent in 2017, which remained flat compared with 2016.

Research and development expenses increased 1 percent to $5.36 billion in 2017.

Marketing, selling, and administrative expenses increased 2 percent to $6.68 billion in 2017, driven by increased marketing expenses for new products that were partially offset by decreased expenses related to late life-cycle products.

We recognized acquired IPR&D charges of $1.11 billion in 2017 resulting from business development activity, primarily related to the acquisition of CoLucid. In 2016, we recognized acquired IPR&D charges of $30.0 million associated with the agreement with AstraZeneca to co-develop MEDI1814. See Note 3 to the consolidated financial statements for additional information.

We recognized asset impairment, restructuring, and other special charges of $1.67 billion in 2017. The charges are primarily associated with efforts to reduce our cost structure, including the U.S. voluntary early retirement program, asset impairments related to lower projected revenue for Posilac (rbST), and asset impairments and other special charges related to product rationalizations and site closures resulting from our acquisition and integration of Novartis AH. In 2016, we recognized $382.5 million of asset impairment, restructuring, and other special charges primarily associated with integration and severance costs related to the acquisition of Novartis AH, other global severance costs associated with actions taken to reduce cost structure, and asset impairments primarily related to the closure of an animal health manufacturing facility in Ireland. See Note 5 to the consolidated financial statements for additional information.

Other-net, (income) expense was income of $300.5 million in 2017, compared with income of $112.8 million in 2016. Other-net, (income) expense in 2016 included a $203.9 million charge related to the impact of the Venezuelan financial crisis, including the significant deterioration of the bolívar. See Note 17 to the consolidated financial statements for additional information.

During 2017, we recorded income tax expense of $2.40 billion, which included a provisional tax charge of $1.91 billion, despite earning $2.20 billion of income before income taxes. The provisional tax charge was a result of the 2017 Tax Act. The effective tax rate in 2016 was 18.9 percent.

FINANCIAL CONDITION

As of December 31, 2018, cash and cash equivalents were $8.00 billion, an increase of $1.46 billion, compared with $6.54 billion at December 31, 2017. Refer to the Consolidated Statements of Cash Flows for additional details on the significant sources and uses of cash for the years ended December 31, 2018 and December 31, 2017.

In addition to our cash and cash equivalents, we held total investments of $2.11 billion and $7.18 billion as of December 31, 2018 and December 31, 2017, respectively. See Note 7 to the consolidated financial statements for additional details.

As of December 31, 2018, total debt was $12.77 billion, a decrease of $876.2 million compared with $13.65 billion at December 31, 2017. The decrease was primarily due to the net decrease in the balance of commercial paper outstanding of $2.20 billion and the repayment of $1.01 billion of long term debt, partially offset by the debt incurred by Elanco as a result of a notes offering and entry into credit facilities totaling $2.48 billion. See Note 10 to the consolidated financial statements for additional details.

Excluding Elanco, at December 31, 2018, we had a total of $5.42 billion of unused committed bank credit facilities, $5.00 billion of which is available to support our commercial paper program. See Note 10 to the consolidated financial statements for additional details. In January 2019, we entered into a $4.00 billion credit facility to support our commercial paper program. We believe that amounts accessible through existing commercial paper markets should be adequate to fund short-term borrowing needs.

In September 2018, Elanco entered into a revolving credit agreement providing for a five-year $750.0 million senior unsecured revolving credit facility, which expires in September 2023. See Note 10 to the consolidated financial statements for additional details.

For the 133rd consecutive year, we distributed dividends to our shareholders. Dividends of $2.25 per share and $2.08 per share were paid in 2018 and 2017, respectively. In the fourth quarter of 2018, effective for the dividend to be paid in the first quarter of 2019, the quarterly dividend was increased to $0.645 per share, resulting in an indicated annual rate for 2019 of $2.58 per share.

Capital expenditures of $1.21 billion during 2018 were $133.8 million more than in 2017.

In 2018, we repurchased $4.15 billion of shares. We completed the $5.00 billion share repurchase program announced in October 2013, and the board authorized a new $8.00 billion share repurchase program. There were $2.10 billion of shares repurchased under the $8.00 billion program during 2018. See Note 12 to the consolidated financial statements for additional details. In January 2019, we initiated $3.50 billion of share repurchases that will conclude in the first half of 2019. These purchases are part of the $8.00 billion program previously authorized by the Board.

We have separately announced our intent to divest our remaining interest in Elanco through an exchange offer. In the exchange offer, our shareholders can exchange all, some, or none of their shares of our common stock at a discount for shares of Elanco common stock owned by us, subject to the terms and conditions of the offer described in Elanco's registration statement, filed with the SEC on February 8, 2019.

In February 2019, we completed our acquisition of Loxo for $235 per share or approximately $8 billion, which will be funded through a mixture of cash and debt. See Note 3 to the consolidated financial statements for additional information.

See "Results of Operations - Executive Overview - Other Matters - Patent Matters" for information regarding recent and upcoming losses of patent protection.

Pursuant to the 2017 Tax Act, the U.S. transitioned to a territorial tax system effective January 1, 2018; therefore, repatriations of cash from our foreign subsidiaries to the U.S. provides us with additional liquidity in the U.S. without the requirement to pay U.S. taxes as existed prior to the enactment of the new tax law. We believe cash provided by operating activities, along with available cash and cash equivalents, should be sufficient to fund our normal operating needs, including installment payments of the Toll Tax, dividends paid to shareholders, share repurchases, and capital expenditures.

Both domestically and abroad, we continue to monitor the potential impacts of the economic environment; the creditworthiness of our wholesalers and other customers, including foreign government-backed agencies and suppliers; the uncertain impact of health care legislation; and various international government funding levels.

In the normal course of business, our operations are exposed to fluctuations in interest rates and currency values. These fluctuations can vary the costs of financing, investing, and operating. We seek to address a portion of these

risks through a controlled program of risk management that includes the use of derivative financial instruments. The objective of controlling these risks is to limit the impact on earnings of fluctuations in interest and currency exchange rates. All derivative activities are for purposes other than trading.

Our primary interest rate risk exposure results from changes in short-term U.S. dollar interest rates. In an effort to manage interest rate exposures, we strive to achieve an acceptable balance between fixed and floating rate debt positions and may enter into interest rate derivatives to help maintain that balance. Based on our overall interest rate exposure at December 31, 2018 and 2017, including derivatives and other interest rate risk-sensitive instruments, a hypothetical 10 percent change in interest rates applied to the fair value of the instruments as of December 31, 2018 and 2017, respectively, would not have a material impact on earnings, cash flows, or fair values of interest rate risk-sensitive instruments over a one-year period.

Our foreign currency risk exposure results from fluctuating currency exchange rates, primarily the U.S. dollar against the euro and Japanese yen. We face foreign currency exchange exposures when we enter into transactions arising from subsidiary trade and loan payables and receivables denominated in foreign currencies. We also face currency exposure that arises from translating the results of our global operations to the U.S. dollar at exchange rates that have fluctuated from the beginning of the period. We may enter into foreign currency forward or option derivative contracts to reduce the effect of fluctuating currency exchange rates (principally the euro and the Japanese yen). Our corporate risk-management policy outlines the minimum and maximum hedge coverage of such exposures. Gains and losses on these derivative contracts offset, in part, the impact of currency fluctuations on the existing assets and liabilities. We periodically analyze the fair values of the outstanding foreign currency derivative contracts to determine their sensitivity to changes in foreign exchange rates. A hypothetical 10 percent change in exchange rates (primarily against the U.S. dollar) applied to the fair values of our outstanding foreign currency derivative contracts as of December 31, 2018 and 2017, would not have a material impact on earnings, cash flows, or financial position over a one-year period. This sensitivity analysis does not consider the impact that hypothetical changes in exchange rates would have on the underlying foreign currency denominated transactions.

Off-Balance Sheet Arrangements and Contractual Obligations

We have no off-balance sheet arrangements that have a material current effect or that are reasonably likely to have a material future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources. We acquire and collaborate on potential products still in development and enter into research and development arrangements with third parties that often require milestone and royalty payments to the third party contingent upon the occurrence of certain future events linked to the success of the asset in development. Milestone payments may be required contingent upon the successful achievement of an important point in the development life cycle of the pharmaceutical product (e.g., approval for marketing by the appropriate regulatory agency or upon the achievement of certain sales levels). If required by the arrangement, we may make royalty payments based upon a percentage of the sales of the pharmaceutical product in the event that regulatory approval for marketing is obtained. Because of the contingent nature of these payments, they are not included in the table of contractual obligations below.

Individually, these arrangements are generally not material in any one annual reporting period. However, if milestones for multiple products covered by these arrangements were reached in the same reporting period, the aggregate charge to expense or aggregate milestone payments made could be material to the results of operations or cash flows, respectively, in that period. See Note 4 to the consolidated financial statements for additional details. These arrangements often give us the discretion to unilaterally terminate development of the product, which would allow us to avoid making the contingent payments; however, we are unlikely to cease development if the compound successfully achieves milestone objectives. We also note that, from a business perspective, we view these payments as positive because they signify that the product is successfully moving through development and is now generating or is more likely to generate cash flows from sales of products.

Our current noncancelable contractual obligations that will require future cash payments are as follows:

	Payments Due by Period				
(Dollars in millions)	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt, including interest payments[1]	$ 16,605.7	$ 927.7	$ 1,690.5	$ 2,800.2	$ 11,187.3
Capital lease obligations	11.8	4.5	5.9	1.4	—
Operating leases	805.2	155.8	217.0	132.9	299.5
Purchase obligations[2]	17,019.6	16,805.5	204.5	9.6	—
2017 Tax Act one-time Toll Tax[3]	2,836.5	159.8	509.8	732.9	1,434.0
Other long-term liabilities reflected on our balance sheet[4]	1,571.6	—	412.4	190.9	968.3
Total	$ 38,850.4	$ 18,053.3	$ 3,040.1	$ 3,867.9	$ 13,889.1

[1] Our long-term debt obligations include both our expected principal and interest obligations and our interest rate swaps. We used the interest rate forward curve at December 31, 2018, to compute the amount of the contractual obligation for interest on the variable rate debt instruments and swaps.

[2] We have included the following:

- Purchase obligations consisting primarily of all open purchase orders as of December 31, 2018. Some of these purchase orders may be cancelable; however, for purposes of this disclosure, we have not distinguished between cancelable and noncancelable purchase obligations.
- Contractual payment obligations with each of our significant vendors, which are noncancelable and are not contingent.

[3] The 2017 Tax Act provided an election to taxpayers subject to the Toll Tax to make payments over an eight-year period. We made this election; therefore, we have included future Toll Tax payments accordingly.

[4] We have included long-term liabilities consisting primarily of our nonqualified supplemental pension funding requirements and other post-employment benefit liabilities. We excluded long-term income taxes payable of $1.05 billion, because we cannot reasonably estimate the timing of future cash outflows associated with those liabilities.

The contractual obligations table is current as of December 31, 2018. We expect the amount of these obligations to change materially over time as new contracts are initiated and existing contracts are completed, terminated, or modified.

APPLICATION OF CRITICAL ACCOUNTING ESTIMATES

In preparing our financial statements in accordance with accounting principles generally accepted in the U.S. (GAAP), we must often make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. Some of those judgments can be subjective and complex, and consequently actual results could differ from those estimates. For any given individual estimate or assumption we make, it is possible that other people applying reasonable judgment to the same facts and circumstances could develop different estimates. We believe that, given current facts and circumstances, it is unlikely that applying any such other reasonable judgment would cause a material adverse effect on our consolidated results of operations, financial position, or liquidity for the periods presented in this report. Our most critical accounting estimates have been discussed with our audit committee and are described below.

Revenue Recognition and Sales Return, Rebate, and Discount Accruals

We recognize revenue primarily from two different types of contracts, product sales to customers (net product revenue) and collaborations and other arrangements. Revenue recognized from collaborations and other arrangements will include our share of profits from the collaboration, as well as royalties, upfront and milestone payments we receive under these types of contracts. Refer to Note 1 to the consolidated financial statements for further information on revenue recognition and sales return, rebate, and discount accruals.

Financial Statement Impact

We believe that our accruals for sales returns, rebates, and discounts are reasonable and appropriate based on current facts and circumstances. Our global rebate and discount liabilities are included in sales rebates and discounts on our consolidated balance sheet. Our global sales return liability is included in other current liabilities and other noncurrent liabilities on our consolidated balance sheet. As of December 31, 2018, a 5 percent change in our global sales return, rebate, and discount liability would have led to an approximate $275 million effect on our income before income taxes.

The portion of our global sales return, rebate, and discount liability resulting from sales of our products in the U.S. was approximately 90 percent as of December 31, 2018 and December 31, 2017.

The following represents a roll-forward of our most significant U.S. pharmaceutical sales return, rebate, and discount liability balances, including managed care, Medicare, and Medicaid:

(Dollars in millions)	2018	2017
Sales return, rebate, and discount liabilities, beginning of year	$ 4,172.0	$ 3,601.8
Reduction of net sales due to sales returns, discounts, and rebates[1]	12,529.6	10,603.4
Cash payments of discounts and rebates	(12,023.4)	(10,033.2)
Sales return, rebate, and discount liabilities, end of year	$ 4,678.2	$ 4,172.0

[1] Adjustments of the estimates for these returns, rebates, and discounts to actual results were approximately 1 percent of consolidated net sales for each of the years presented.

Product Litigation Liabilities and Other Contingencies

Background and Uncertainties

Product litigation liabilities and other contingencies are, by their nature, uncertain and based upon complex judgments and probabilities. The factors we consider in developing our product litigation liability reserves and other contingent liability amounts include the merits and jurisdiction of the litigation, the nature and the number of other similar current and past matters, the nature of the product and the current assessment of the science subject to the litigation, and the likelihood of settlement and current state of settlement discussions, if any. In addition, we accrue for certain product liability claims incurred, but not filed, to the extent we can formulate a reasonable estimate of their costs based primarily on historical claims experience and data regarding product usage. We accrue legal defense costs expected to be incurred in connection with significant product liability contingencies when both probable and reasonably estimable.

We also consider the insurance coverage we have to diminish the exposure for periods covered by insurance. In assessing our insurance coverage, we consider the policy coverage limits and exclusions, the potential for denial of coverage by the insurance company, the financial condition of the insurers, and the possibility of and length of time for collection. Due to a very restrictive market for product liability insurance, we are self-insured for product liability losses for all our currently marketed products. In addition to insurance coverage, we also consider any third-party indemnification to which we are entitled or under which we are obligated. With respect to our third-party indemnification rights, these considerations include the nature of the indemnification, the financial condition of the indemnifying party, and the possibility of and length of time for collection.

The litigation accruals and environmental liabilities and the related estimated insurance recoverables have been reflected on a gross basis as liabilities and assets, respectively, on our consolidated balance sheets.

Impairment of Indefinite-Lived and Long-Lived Assets

Background and Uncertainties

We review the carrying value of long-lived assets (both intangible and tangible) for potential impairment on a periodic basis and whenever events or changes in circumstances indicate the carrying value of an asset (or asset group) may not be recoverable. We identify impairment by comparing the projected undiscounted cash flows to be generated by the asset (or asset group) to its carrying value. If an impairment is identified, a loss is recorded equal to the excess of the asset's net book value over its fair value, and the cost basis is adjusted.

Goodwill and indefinite-lived intangible assets are reviewed for impairment at least annually and when certain impairment indicators are present. When required, a comparison of fair value to the carrying amount of assets is performed to determine the amount of any impairment.

Several methods may be used to determine the estimated fair value of acquired IPR&D, all of which require multiple assumptions. We utilize the "income method," as described in Note 8 to the consolidated financial statements.

For acquired IPR&D assets, the risk of failure has been factored into the fair value measure and there can be no certainty that these assets ultimately will yield a successful product, as discussed previously in "Results of Operations - Executive Overview - Late-Stage Pipeline." The nature of the pharmaceutical business is high-risk and requires that we invest in a large number of projects to maintain a successful portfolio of approved products. As such, it is likely that some acquired IPR&D assets will become impaired in the future.

Estimates of future cash flows, based on what we believe to be reasonable and supportable assumptions and projections, require management's judgment. Actual results could vary materially from these estimates.

Retirement Benefits Assumptions

Background and Uncertainties

Defined benefit pension plan and retiree health benefit plan costs include assumptions for the discount rate, expected return on plan assets, and retirement age. These assumptions have a significant effect on the amounts reported. In addition to the analysis below, see Note 14 to the consolidated financial statements for additional information regarding our retirement benefits.

Annually, we evaluate the discount rate and the expected return on plan assets in our defined benefit pension and retiree health benefit plans. We use an actuarially determined, plan-specific yield curve of high quality, fixed income debt instruments to determine the discount rates. In evaluating the expected return on plan assets, we consider many factors, with a primary analysis of current and projected market conditions, asset returns and asset allocations (approximately 70 percent of which are growth investments); and the views of leading financial advisers and economists. We may also review our historical assumptions compared with actual results, as well as the discount rates and expected return on plan assets of other companies, where applicable. In evaluating our expected retirement age assumption, we consider the retirement ages of our past employees eligible for pension and medical benefits together with our expectations of future retirement ages.

Financial Statement Impact

If the 2018 discount rate for the U.S. defined benefit pension and retiree health benefit plans (U.S. plans) were to change by a quarter percentage point, income before income taxes would change by $33.7 million. If the 2018 expected return on plan assets for U.S. plans were to change by a quarter percentage point, income before income taxes would change by $25.6 million. If our assumption regarding the 2018 expected age of future retirees for U.S. plans were adjusted by one year, our income before income taxes would be affected by $49.1 million. The U.S. plans, including Puerto Rico, represent approximately 75 percent and 80 percent of the total projected benefit obligation and total plan assets, respectively, at December 31, 2018.

Income Taxes

Background and Uncertainties

We prepare and file tax returns based upon our interpretation of tax laws and regulations and record estimates based on these judgments and interpretations. In the normal course of business, our tax returns are subject to examination by various taxing authorities, which may result in future tax, interest, and penalty assessments by these authorities. Inherent uncertainties exist in estimates of many tax positions due to changes in tax law resulting from legislation and regulation as concluded through the various jurisdictions' tax court systems. We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate resolution. The amount of unrecognized tax benefits is adjusted for changes in facts and circumstances. For example, adjustments could result from significant amendments to existing tax law, the issuance of regulations or interpretations by the taxing authorities, new information obtained during a tax examination, or resolution of a tax examination. We believe our estimates for uncertain tax positions are appropriate and sufficient to pay assessments that may result from examinations of our tax returns. We recognize both accrued interest and penalties related to unrecognized tax benefits in income tax expense.

We have recorded valuation allowances against certain of our deferred tax assets, primarily those that have been generated from net operating losses and tax credit carryforwards in certain taxing jurisdictions. In evaluating whether we would more likely than not recover these deferred tax assets, we have not assumed any future taxable income or tax planning strategies in the jurisdictions associated with these carryforwards where history does not support such an assumption. Implementation of tax planning strategies to recover these deferred tax assets or future income generation in these jurisdictions could lead to the reversal of these valuation allowances and a reduction of income tax expense.

The 2017 Tax Act was enacted in December 2017 and introduced significant changes to the U.S. corporate income tax system. In accordance with GAAP, our accounting for the effects of the 2017 Tax Act is complete (refer to "Results of Operations - Executive Overview - Other Matters - Tax Matters" and Note 13 to the consolidated financial statements for further discussion on the 2017 Tax Act). Subsequent to the enactment of the 2017 Tax Act, numerous items of additional guidance were issued, including Notices, Proposed Regulations, and Final Regulations. We expect that further guidance will be issued in 2019 which may change our interpretations of the new tax laws and could materially affect the estimates used to record U.S. federal and state income tax expense.

Financial Statement Impact

As of December 31, 2018, a 5 percent change in the amount of uncertain tax positions and the valuation allowance would result in a change in net income of $74.5 million and $29.8 million, respectively.

Acquisitions

Background and Uncertainties

To determine whether acquisitions or licensing transactions should be accounted for as a business combination or as an asset acquisition, we make certain judgments, which include assessing whether the acquired set of activities and assets would meet the definition of a business under the relevant accounting rules.

If the acquired set of activities and assets meets the definition of a business, assets acquired and liabilities assumed are required to be recorded at their respective fair values as of the acquisition date. The excess of the purchase price over the fair value of the acquired net assets, where applicable, is recorded as goodwill. If the acquired set of activities and assets does not meet the definition of a business, the transaction is recorded as an acquisition of assets and, therefore, any acquired IPR&D that does not have an alternative future use is charged to expense at the acquisition date, and goodwill is not recorded. Refer to Note 3 to the consolidated financial statements for additional information.

The judgments made in determining estimated fair values assigned to assets acquired and liabilities assumed in a business combination, as well as estimated asset lives, can materially affect our consolidated results of operations. The fair values of intangible assets, including acquired IPR&D, are determined using information available near the acquisition date based on expectations and assumptions that are deemed reasonable by management. Depending on the facts and circumstances, we may deem it necessary to engage an independent valuation expert to assist in valuing significant assets and liabilities.

The fair values of identifiable intangible assets are primarily determined using an "income method," as described in Note 8 to the consolidated financial statements.

The fair value of any contingent consideration liability that results from a business combination is determined using a market approach based on quoted market values, significant other observable inputs for identical or comparable assets or liabilities, or a discounted cash flow analysis. Estimating the fair value of contingent consideration requires the use of significant estimates and judgments, including, but not limited to, revenue and the discount rate.

Financial Statement Impact

As of December 31, 2018, a 5 percent change in the contingent consideration liability would result in a change in income before income taxes of $3.71 million.

LEGAL AND REGULATORY MATTERS

Information relating to certain legal proceedings can be found in Note 15 to the consolidated financial statements and is incorporated here by reference.

FINANCIAL EXPECTATIONS FOR 2019

For the full year of 2019, we expect EPS to be in the range of $4.57 to $4.67, reflecting the anticipated impacts of the Loxo acquisition and the suspension of promotion of Lartruvo. We anticipate that total revenue will be between $25.1 billion and $25.6 billion. Revenue growth is expected to be driven by volume from newer products including Trulicity, Taltz, Basaglar, Jardiance, Verzenio, Cyramza, and Olumiant.

We anticipate that gross margin as a percent of revenue will be approximately 75 percent in 2019. Research and development expenses are expected to be in the range of $5.8 billion to $6.0 billion, reflecting additional expenses associated with the acquisition of Loxo. Marketing, selling, and administrative expenses are expected to be in the range of $6.4 billion to $6.7 billion. Other—net, (income) expense is expected to be expense in the range of $175 million to $325 million, reflecting additional interest expense associated with the acquisition of Loxo.

The 2019 tax rate is expected to be approximately 16.5 percent.

The individual elements of the 2019 financial guidance outlined above include consolidated financial expectations for both our human pharmaceutical business and Elanco.

Financial Statements and Supplementary Data

Consolidated Statements of Operations

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions and shares in thousands, except per-share data) Year Ended December 31	2018	2017	2016
Revenue	**$ 24,555.7**	$ 22,871.3	$ 21,222.1
Costs, expenses, and other:			
Cost of sales	**6,430.0**	6,150.8	5,710.1
Research and development	**5,307.1**	5,357.3	5,310.3
Marketing, selling, and administrative	**6,631.8**	6,680.1	6,528.0
Acquired in-process research and development (Notes 3)	**1,983.9**	1,112.6	30.0
Asset impairment, restructuring, and other special charges (Note 5)	**482.0**	1,673.6	382.5
Other—net, (income) expense (Note 17)	**(74.8)**	(300.5)	(112.8)
	20,760.0	20,673.9	17,848.1
Income before income taxes	**3,795.7**	2,197.4	3,374.0
Income taxes (Note 13)	**563.7**	2,401.5	636.4
Net income (loss)	**$ 3,232.0**	$ (204.1)	$ 2,737.6
Earnings (loss) per share:			
Basic	**$ 3.14**	$ (0.19)	$ 2.59
Diluted	**$ 3.13**	$ (0.19)	$ 2.58
Shares used in calculation of earnings (loss) per share:			
Basic	**1,027,721**	1,052,023	1,058,324
Diluted	**1,033,667**	1,052,023	1,061,825

See notes to consolidated financial statements.

Consolidated Statements of Comprehensive Income (Loss)

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions) Year Ended December 31	2018	2017	2016
Net income (loss)	**$ 3,232.0**	$ (204.1)	$ 2,737.6
Other comprehensive income (loss):			
Change in foreign currency translation gains (losses)	**(440.7)**	501.9	(436.4)
Change in net unrealized gains (losses) on securities	**(8.8)**	(181.3)	303.0
Change in defined benefit pension and retiree health benefit plans (Note 14)	**569.4**	(576.6)	(512.8)
Change in effective portion of cash flow hedges	**(6.0)**	27.8	11.7
Other comprehensive income (loss) before income taxes	**113.9**	(228.2)	(634.5)
Benefit (provision) for income taxes related to other comprehensive income (loss) items	**(30.3)**	402.7	(10.6)
Other comprehensive income (loss) (Note 16)[1]	**83.6**	174.5	(645.1)
Comprehensive income (loss)	**$ 3,315.6**	$ (29.6)	$ 2,092.5

[1] Other comprehensive income in 2018 consists of $72.6 million of other comprehensive income attributable to controlling interest and $11.0 million of other comprehensive income attributable to noncontrolling interest. Other comprehensive income in 2017 consists of $199.0 million of other comprehensive income attributable to controlling interest and $24.5 million of other comprehensive loss attributable to noncontrolling interest. Other comprehensive loss in 2016 consists of $693.3 million of other comprehensive loss attributable to controlling interest and $48.2 million of other comprehensive income attributable to noncontrolling interest.

See notes to consolidated financial statements.

Consolidated Balance Sheets

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions, shares in thousands)	December 31	2018	2017
Assets			
Current Assets			
Cash and cash equivalents (Note 7)		**$ 7,998.2**	$ 6,536.2
Short-term investments (Note 7)		**88.2**	1,497.9
Accounts receivable, net of allowances of **$32.5 (2018)** and $38.7 (2017)		**5,246.5**	4,546.3
Other receivables		**958.4**	715.9
Inventories (Note 6)		**4,111.8**	4,458.3
Prepaid expenses and other		**2,146.5**	1,447.5
Total current assets		**20,549.6**	19,202.1
Other Assets			
Investments (Note 7)		**2,020.7**	5,678.8
Goodwill (Note 8)		**4,347.5**	4,370.1
Other intangibles, net (Note 8)		**3,521.0**	4,029.2
Deferred tax assets (Note 13)		**2,657.7**	1,166.4
Sundry		**1,892.4**	1,707.9
Total other assets		**14,439.3**	16,952.4
Property and equipment, net (Note 9)		**8,919.5**	8,826.5
Total assets		**$ 43,908.4**	$ 44,981.0
Liabilities and Equity			
Current Liabilities			
Short-term borrowings and current maturities of long-term debt (Note 10)		**$ 1,131.2**	$ 3,706.6
Accounts payable		**1,412.3**	1,410.7
Employee compensation		**1,054.5**	997.9
Sales rebates and discounts		**5,021.9**	4,465.1
Dividends payable		**650.8**	590.6
Income taxes payable (Note 13)		**404.0**	532.9
Other current liabilities		**2,213.4**	2,832.1
Total current liabilities		**11,888.1**	14,535.9
Other Liabilities			
Long-term debt (Note 10)		**11,639.7**	9,940.5
Accrued retirement benefits (Note 14)		**2,911.3**	3,513.9
Long-term income taxes payable (Note 13)		**3,724.6**	3,776.5
Other noncurrent liabilities		**2,835.6**	1,546.3
Total other liabilities		**21,111.2**	18,777.2
Commitments and Contingencies (Note 15)			
Eli Lilly and Company Shareholders' Equity (Notes 11 and 12)			
Common stock—no par value Authorized shares: 3,200,000 Issued shares: **1,057,639 (2018)** and 1,100,672 (2017)		**661.0**	687.9
Additional paid-in capital		**6,583.6**	5,817.8
Retained earnings		**11,395.9**	13,894.1
Employee benefit trust		**(3,013.2)**	(3,013.2)
Accumulated other comprehensive loss (Note 16)		**(5,729.2)**	(5,718.6)
Cost of common stock in treasury		**(69.4)**	(75.8)
Total Eli Lilly and Company shareholders' equity		**9,828.7**	11,592.2
Noncontrolling interests		**1,080.4**	75.7
Total equity		**10,909.1**	11,667.9
Total liabilities and equity		**$ 43,908.4**	$ 44,981.0

See notes to consolidated financial statements.

Consolidated Statements of Shareholders' Equity

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions, shares in thousands)	Equity of Eli Lilly and Company Shareholders								Noncontrolling Interest
	Common Stock		Additional Paid-in Capital	Retained Earnings	Employee Benefit Trust	Accumulated Other Comprehensive Loss	Common Stock in Treasury		
	Shares	Amount					Shares	Amount	
Balance at January 1, 2016	1,106,063	$ 691.3	$ 5,552.1	$ 16,011.8	$ (3,013.2)	$ (4,580.7)	796	$ (90.0)	$ 19.0
Net income				2,737.6					16.3
Other comprehensive income (loss), net of tax						(693.3)			48.2
Cash dividends declared per share: $2.05				(2,167.6)					
Retirement of treasury shares	(7,306)	(4.6)		(535.5)			(7,306)	540.1	
Purchase of treasury shares			(60.0)				7,306	(540.1)	
Issuance of stock under employee stock plans, net	2,829	1.8	(106.8)				(85)	9.5	
Stock-based compensation			255.3						
Other									(10.7)
Balance at December 31, 2016	1,101,586	688.5	5,640.6	16,046.3	(3,013.2)	(5,274.0)	711	(80.5)	72.8
Net income (loss)				(204.1)					30.5
Other comprehensive income (loss), net of tax						199.0			(24.5)
Cash dividends declared per share: $2.12				(2,234.6)					
Retirement of treasury shares	(4,390)	(2.7)		(357.1)			(4,390)	359.8	
Purchase of treasury shares			60.0				4,390	(359.8)	
Issuance of stock under employee stock plans, net	3,476	2.1	(164.1)				(47)	4.7	
Stock-based compensation			281.3						
Reclassification of stranded tax effects (Note 2)				643.6		(643.6)			
Other									(3.1)
Balance at December 31, 2017	1,100,672	687.9	5,817.8	13,894.1	(3,013.2)	(5,718.6)	664	(75.8)	75.7
Net income				**3,232.0**					**3.7**
Other comprehensive income (loss), net of tax						**85.6**			**(2.0)**
Cash dividends declared per share: $2.33				**(2,372.0)**					
Retirement of treasury shares	**(45,882)**	**(28.7)**		**(4,122.0)**			**(45,882)**	**4,150.7**	
Purchase of treasury shares							**45,882**	**(4,150.7)**	
Issuance of stock under employee stock plans, net	**2,849**	**1.8**	**(139.0)**				**(60)**	**6.4**	
Stock-based compensation			**279.5**						
Adoption of new accounting standards (Note 2)				**763.8**		**(105.2)**			
Sale of Elanco Stock (Note 3)			**629.2**			**9.0**			**1,017.2**
Other			**(3.9)**						**(14.2)**
Balance at December 31, 2018	**1,057,639**	**$ 661.0**	**$ 6,583.6**	**$11,395.9**	**$(3,013.2)**	**$ (5,729.2)**	**604**	**$ (69.4)**	**$ 1,080.4**

See notes to consolidated financial statements.

Consolidated Statements of Cash Flows

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions) Year Ended December 31	2018	2017	2016
Cash Flows from Operating Activities			
Net income (loss)	**$ 3,232.0**	$ (204.1)	$ 2,737.6
Adjustments to Reconcile Net Income (Loss) to Cash Flows from Operating Activities:			
Depreciation and amortization	**1,609.0**	1,567.3	1,496.6
Change in deferred income taxes	**326.8**	(787.9)	439.5
Stock-based compensation expense	**279.5**	281.3	255.3
Acquired in-process research and development	**1,983.9**	1,112.6	30.0
Other non-cash operating activities, net	**472.0**	441.5	376.1
Other changes in operating assets and liabilities, net of acquisitions and divestitures:			
Receivables—(increase) decrease	**(996.7)**	(357.0)	(709.4)
Inventories—(increase) decrease	**7.8**	(253.9)	(328.2)
Other assets—(increase) decrease	**(980.0)**	(590.1)	(265.5)
Income taxes payable—increase (decrease)	**(125.3)**	3,489.6	(304.8)
Accounts payable and other liabilities—increase (decrease)	**(284.5)**	916.3	1,123.8
Net Cash Provided by Operating Activities	**5,524.5**	5,615.6	4,851.0
Cash Flows from Investing Activities			
Purchases of property and equipment	**(1,210.6)**	(1,076.8)	(1,037.0)
Proceeds from disposals of property and equipment	**3.6**	40.7	73.4
Proceeds from sales and maturities of short-term investments	**2,552.5**	4,852.5	1,642.0
Purchases of short-term investments	**(112.2)**	(3,389.7)	(1,327.4)
Proceeds from sales of noncurrent investments	**3,509.5**	2,586.0	2,086.0
Purchases of noncurrent investments	**(837.9)**	(4,611.6)	(4,346.0)
Purchases of in-process research and development	**(1,807.6)**	(1,086.8)	(55.0)
Cash paid for acquisitions, net of cash acquired (Note 3)	**—**	(882.1)	(45.0)
Other investing activities, net	**(191.3)**	(215.8)	(130.1)
Net Cash Provided by (Used for) Investing Activities	**1,906.0**	(3,783.6)	(3,139.1)
Cash Flows from Financing Activities			
Dividends paid	**(2,311.8)**	(2,192.1)	(2,158.5)
Net change in short-term borrowings	**(2,197.9)**	1,397.5	1,293.2
Proceeds from issuance of long-term debt	**2,477.7**	2,232.0	1,206.6
Repayments of long-term debt	**(1,009.1)**	(630.6)	(0.2)
Purchases of common stock	**(4,150.7)**	(299.8)	(600.1)
Net proceeds from Elanco initial public offering (Note 3)	**1,659.7**	—	—
Other financing activities, net	**(372.8)**	(364.4)	(300.8)
Net Cash Provided by (Used for) Financing Activities	**(5,904.9)**	142.6	(559.8)
Effect of exchange rate changes on cash and cash equivalents	**(63.6)**	(20.5)	(236.4)
Net increase in cash and cash equivalents	**1,462.0**	1,954.1	915.7
Cash and cash equivalents at beginning of year	**6,536.2**	4,582.1	3,666.4
Cash and Cash Equivalents at End of Year	**$ 7,998.2**	$ 6,536.2	$ 4,582.1

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements
ELI LILLY AND COMPANY AND SUBSIDIARIES
(Tables present dollars in millions, except per-share data)

Note 1: Summary of Significant Accounting Policies

Basis of presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The accounts of all wholly-owned and majority-owned subsidiaries are included in the consolidated financial statements. Where our ownership of consolidated subsidiaries is less than 100 percent, the noncontrolling shareholders' interests are reflected as a separate component of equity. All intercompany balances and transactions have been eliminated.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures at the date of the financial statements and during the reporting period. Actual results could differ from those estimates. We issued our financial statements by filing with the Securities and Exchange Commission (SEC) and have evaluated subsequent events up to the time of the filing.

On September 24, 2018, Elanco Animal Health Incorporated (Elanco), one of our subsidiaries, completed its initial public offering (IPO) of 72.3 million shares of its common stock, which represents 19.8 percent of Elanco's outstanding shares, at $24 per share. In addition, Elanco completed a debt offering and entered into a term loan facility during the third quarter of 2018. See Notes 3 and 10 to the consolidated financial statements for additional information.

Certain reclassifications have been made to prior periods in the consolidated financial statements and accompanying notes to conform with the current presentation.

All per-share amounts, unless otherwise noted in the footnotes, are presented on a diluted basis.

Adoption of Revenue Accounting Standard

Effective January 1, 2018, we adopted Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* and other related updates (see Note 2 for additional discussion). The new standard has been applied to contracts for which performance was not substantially complete as of the date of adoption. For those contracts that were modified prior to the date of adoption, we reflected the aggregate effect of those modifications when determining the appropriate accounting under the new standard. We don't believe the effect of applying this practical expedient resulted in material differences. Revenue presented for periods prior to 2018 was accounted for under previous standards and has not been adjusted. Revenue and net income for 2018 do not differ materially from amounts that would have resulted from application of the previous standards.

The following table summarizes our revenue recognized in our consolidated statements of operations:

	2018	2017	2016
Net product revenue	**$ 22,928.8**	$ 21,671.4	$ 20,388.4
Collaboration and other revenue[1]	**1,626.9**	1,199.9	833.7
Revenue	**$ 24,555.7**	$ 22,871.3	$ 21,222.1

[1] Collaboration and other revenue associated with prior year transfers of intellectual property was $303.2 million, $145.8 million, and $146.1 million during the years ended 2018, 2017, and 2016, respectively.

We recognize revenue primarily from two different types of contracts, product sales to customers (net product revenue) and collaborations and other arrangements. Revenue recognized from collaborations and other arrangements will include our share of profits from the collaboration, as well as royalties, upfront and milestone payments we receive under these types of contracts. See Note 4 for additional information related to our collaborations and other arrangements. Collaboration and other revenue disclosed above includes the revenue from the Trajenta® and Jardiance® families of products resulting from our collaboration with Boehringer Ingelheim discussed in Note 4. Substantially all of the remainder of collaboration and other revenue is related to contracts accounted for as contracts with customers.

Net Product Revenue

Revenue from sales of products is recognized at the point where the customer obtains control of the goods and we satisfy our performance obligation, which generally is at the time we ship the product to the customer. Payment terms differ by jurisdiction and customer, but payment terms in most of our major jurisdictions typically range from 30 to 75 days from date of shipment. Revenue for our product sales has not been adjusted for the effects of a financing component as we expect, at contract inception, that the period between when we transfer control of the product and when we receive payment will be one year or less. Any exceptions are either not material or we collect interest for payments made after the due date. Provisions for rebates and discounts, and returns are established in the same period the related sales are recognized. We generally ship product shortly after orders are received; therefore, we generally only have a few days of orders received but not yet shipped at the end of any reporting period. Shipping and handling activities are considered to be fulfillment activities and are not considered to be a separate performance obligation. We exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are imposed on our sales of product and collected from a customer.

Significant judgments must be made in determining the transaction price for our sales of products related to anticipated rebates and discounts and returns. The following describe the most significant of these judgments:

Sales Rebates and Discounts - Background and Uncertainties

- Most of our pharmaceutical products are sold to wholesalers that serve pharmacies, physicians and other health care professionals, and hospitals. Most of our animal health products are sold to wholesale distributors. We initially invoice our customers at contractual list prices. Contracts with direct and indirect customers may provide for various rebates and discounts that may differ in each contract. As a consequence, to determine the appropriate transaction price for our product sales at the time we recognize a sale to a direct customer, we must estimate any rebates or discounts that ultimately will be due to the direct customer and other customers in the distribution chain under the terms of our contracts. Significant judgments are required in making these estimates.
- The rebate and discount amounts are recorded as a deduction to arrive at our net product revenue. Sales rebates and discounts that require the use of judgment in the establishment of the accrual include managed care, Medicare, Medicaid, chargebacks, long-term care, hospital, patient assistance programs, and various other programs. We estimate these accruals using an expected value approach.
- The largest of our sales rebate and discount amounts are rebates associated with sales covered by managed care, Medicare, Medicaid, and chargeback contracts in the United States (U.S.) In determining the appropriate accrual amount, we consider our historical rebate payments for these programs by product as a percentage of our historical sales as well as any significant changes in sales trends (e.g., patent expiries and product launches), an evaluation of the current contracts for these programs, the percentage of our products that are sold via these programs, and our product pricing. Although we accrue a liability for rebates related to these programs at the time we record the sale, the rebate related to that sale is typically paid up to six months later. Because of this time lag, in any particular period our rebate adjustments may incorporate revisions of accruals for several periods.
- Most of our rebates outside the U.S. are contractual or legislatively mandated and are estimated and recognized in the same period as the related sales. In some large European countries, government rebates are based on the anticipated budget for pharmaceutical payments in the country. An estimate of these rebates, updated as governmental authorities revise budgeted deficits, is recognized in the same period as the related sale.

Sales Returns - Background and Uncertainties

- When product sales occur, to determine the appropriate transaction price for our sales, we estimate a reserve for future product returns related to those sales using an expected value approach. This estimate is based on several factors, including: historical return rates, expiration date by product (on average, approximately 24 months after the initial sale of a product to our customer), and estimated levels of inventory in the wholesale and retail channels, as well as any other specifically-identified anticipated returns due to known factors such as the loss of patent exclusivity, product recalls and discontinuances, or a changing competitive environment. We maintain a returns policy that allows U.S. pharmaceutical customers to return product for dating issues within a specified period prior to and subsequent to the product's expiration date. Following the loss of exclusivity for a patent-dependent product, we expect to experience an elevated level of product returns as product inventory remaining in the wholesale and retail channels expires. Adjustments to the returns reserve have been and may in the future be required based

on revised estimates to our assumptions. We record the return amounts as a deduction to arrive at our net product revenue. Once the product is returned, it is destroyed; we do not record a right of return asset. Our returns policies outside the U.S. are generally more restrictive than in the U.S. as returns are not allowed for reasons other than failure to meet product specifications in many countries. Our reserve for future product returns for product sales outside the U.S. is not material.

- As a part of our process to estimate a reserve for product returns, we regularly review the supply levels of our significant products sold to major wholesalers in the U.S. and in major markets outside the U.S., primarily by reviewing periodic inventory reports supplied by our major wholesalers and available prescription volume information for our products, or alternative approaches. We attempt to maintain U.S. wholesaler inventory levels at an average of approximately one month or less on a consistent basis across our product portfolio. Causes of unusual wholesaler buying patterns include actual or anticipated product-supply issues, weather patterns, anticipated changes in the transportation network, redundant holiday stocking, and changes in wholesaler business operations. In the U.S., the current structure of our arrangements provides us with data on inventory levels at our wholesalers; however, our data on inventory levels in the retail channel is more limited. Wholesaler stocking and destocking activity historically has not caused any material changes in the rate of actual product returns.
- Actual product returns have been less than 2 percent of our net revenue over each of the past three years and have not fluctuated significantly as a percentage of revenue, although fluctuations are more likely in periods following loss of patent exclusivity for major products in the U.S. market.

Adjustments to Revenue

Adjustments to revenue recognized as a result of changes in estimates for the judgments described above during 2018 for product shipped in previous years were approximately 1 percent of revenue.

Disaggregation of Revenue

Our disaggregated revenue is disclosed in Note 18.

Collaborations and Other Arrangements

We recognize several types of revenue from our collaborations and other arrangements, which we discuss in general terms immediately below and more specifically in Note 4 for each of our material collaborations and other arrangements. Our collaborations and other arrangements are not contracts with customers but are evaluated to determine whether any aspects of the arrangements are contracts with customers.

- Revenue related to products we sell pursuant to these arrangements is included in net product revenue, while other sources of revenue (e.g., royalties and profit sharing from our partner) are included in collaboration and other revenue.
- Initial fees and developmental milestones we receive in collaborative and other similar arrangements from the partnering of our compounds under development are generally deferred and amortized into income through the expected product approval date.
- Profit-sharing due from our collaboration partners, which is based upon gross margins reported to us by our partners, is recognized as collaboration and other revenue as earned.
- Royalty revenue from licensees, which is based on sales to third-parties of licensed products and technology, is recorded when the third-party sale occurs and the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). This royalty revenue is included in collaboration and other revenue.
- For arrangements involving multiple goods or services (e.g., research and development, marketing and selling, manufacturing, and distribution), each required good or service is evaluated to determine whether it is distinct. If a good or service does not qualify as distinct, it is combined with the other non-distinct goods or services within the arrangement and these combined goods or services are treated as a single performance obligation for accounting purposes. The arrangement's transaction price is then allocated to each performance obligation based on the relative standalone selling price of each performance obligation. For arrangements that involve variable consideration where we have sold intellectual property, we recognize revenue based on estimates of the amount of consideration we believe we will be entitled to receive from the other party, subject to a constraint. These estimates are adjusted to reflect the actual amounts to be collected when those facts and circumstances become known.

- Significant judgments must be made in determining the transaction price for our sales of intellectual property. Because of the risk that products in development will not receive regulatory approval, we generally do not recognize any contingent payments that would be due to us upon or after regulatory approval.
- We have entered into arrangements whereby we transferred rights to products and committed to supply for a period of time. For those arrangements for which we concluded that the obligations were not distinct, any amounts received upfront are being amortized to revenue as net product revenue over the period of the supply arrangement as the performance obligation is satisfied.

Contract Liabilities

Our contract liabilities result from arrangements where we have received payment in advance of performance under the contract and do not include sales rebates, discounts, and returns. Changes in contract liabilities are generally due to either receipt of additional advance payments or our performance under the contract.

We have the following amounts recorded for contract liabilities:

	2018	2017
Contract liabilities	**$ 299.3**	$ 335.2

The contract liabilities amount disclosed above as of December 31, 2018 and 2017, are primarily related to:

- The remaining license period of symbolic intellectual property, and
- Obligations to supply product for a defined period of time.

Revenue recognized from contract liabilities as of January 1, 2018, during the year ended December 31, 2018 was not material. Revenue expected to be recognized in the future from contract liabilities as the related performance obligations are satisfied is not expected to be material in any one year.

Research and development expenses and acquired in-process research and development

Research and development expenses include the following:

- Research and development costs, which are expensed as incurred.
- Milestone payment obligations incurred prior to regulatory approval of the product, which are accrued when the event requiring payment of the milestone occurs.

Acquired in-process research and development (IPR&D) expense includes the initial costs of IPR&D projects, acquired directly in a transaction other than a business combination, that do not have an alternative future use.

Earnings per share

We calculate basic earnings per share (EPS) based on the weighted-average number of common shares outstanding and incremental shares from potential participating securities. We calculate diluted EPS based on the weighted-average number of common shares outstanding, including incremental shares from our stock-based compensation programs.

Foreign Currency Translation

Operations in our subsidiaries outside the U.S. are recorded in the functional currency of each subsidiary which is determined by a review of the environment where each subsidiary primarily generates and expends cash. The results of operations for our subsidiaries outside the U.S. are translated from functional currencies into U.S. dollars using the weighted average currency rate for the period. Assets and liabilities are translated using the period end exchange rates. The U.S. dollar effects that arise from translating the net assets of these subsidiaries are recorded in other comprehensive income (loss).

Other significant accounting policies

Our other significant accounting policies are described in the remaining appropriate notes to the consolidated financial statements.

Note 2: Implementation of New Financial Accounting Pronouncements

The following table provides a brief description of accounting standards that were effective January 1, 2018 and were adopted on that date:

Standard	Description	Effect on the financial statements or other significant matters
Accounting Standards Update 2014-09 and various other related updates, *Revenue from Contracts with Customers*	This standard replaced existing revenue recognition standards and requires entities to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. An entity can apply the new revenue standard retrospectively to each prior reporting period presented or with the cumulative effect of initially applying the standard recognized at the date of initial application in retained earnings. We applied the latter approach.	Application of the new standard to applicable contracts resulted in an increase of approximately $5 million to retained earnings as of January 1, 2018. Disclosures required by the new standard are included in Note 1, Note 4, and Note 18.
Accounting Standards Update 2016-01, *Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities*	This standard requires entities to recognize changes in the fair value of equity investments with readily determinable fair values in net income (except for investments accounted for under the equity method of accounting or those that result in consolidation of the investee). An entity should apply the new standard through a cumulative effect adjustment to retained earnings as of the beginning of the fiscal year of adoption.	Upon adoption, we reclassified from accumulated other comprehensive loss the after-tax amount of net unrealized gains resulting in an increase to retained earnings of approximately $105 million. Adoption of this standard did not result in a material change in net income in 2018.
Accounting Standards Update 2016-16, *Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory*	This standard requires entities to recognize the income tax consequences of intra-entity transfers of assets other than inventory at the time of transfer. This standard requires a modified retrospective approach to adoption.	Upon adoption, the cumulative effect of applying the standard resulted in an increase of approximately $700 million to retained earnings, $2.5 billion to deferred tax assets, and $1.8 billion to deferred tax liabilities. Adoption of this standard did not result in a material change in net income in 2018.
Accounting Standards Update 2017-07, *Compensation-Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*	This standard was issued to improve the transparency and comparability among organizations by requiring entities to separate their net periodic pension cost and net periodic postretirement benefit cost into a service cost component and other components. Previously, the costs of the other components along with the service cost component were classified based upon the function of the employee. This standard requires entities to classify the service cost component in the same financial statement line item or items as other compensation costs arising from services rendered by pertinent employees. The other components of net benefit cost are now presented separately from the line items that include the service cost component. When applicable, the service cost component is now the only component eligible for capitalization. An entity should apply the new standard retrospectively for the classification of the service cost and other components and prospectively for the capitalization of the service cost component.	Upon adoption of this standard, pension and postretirement benefit cost components other than service costs are presented in other–net, (income) expense. The application of the new standard resulted in reclassification to other income of $248.1 million for the year ended December 31, 2017, while increasing cost of sales by $80.6 million, research and development expenses by $75.5 million, and marketing, selling, and administrative expenses by $92.0 million for the same period. The application of the new standard resulted in reclassification to other income of $197.6 million for the year ended December 31, 2016, while increasing cost of sales by $55.2 million, research and development expenses by $66.4 million, and marketing, selling, and administrative expenses by $76.0 million for the same period. We do not expect application of the new standard to have a material impact on an ongoing basis.

We elected to early adopt Accounting Standards Update 2018-02, *Income Statement-Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* as of December 31, 2017, which allowed a reclassification from accumulated other comprehensive loss to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act (2017 Tax Act - see Note 13). This standard allowed us to reclassify the effect of remeasuring deferred tax liabilities and assets related to items within accumulated other comprehensive loss using the then newly enacted 21 percent federal corporate income tax rate. The provisional effect of this early adoption was a reclassification from accumulated other comprehensive loss, which resulted in an increase to retained earnings of $643.6 million as of December 31, 2017.

The following table provides a brief description of the accounting standard that had not yet been adopted as of December 31, 2018:

Standard	Description	Effective Date	Effect on the financial statements or other significant matters
Accounting Standards Update 2016-02, *Leases*	This standard was issued to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities, including leases classified as operating leases under current GAAP, on the balance sheet and requiring additional disclosures about leasing arrangements. An entity can apply the new leases standard retrospectively to each prior reporting period presented or with the cumulative effect of initially applying the standard recognized at the date of initial application in retained earnings. We plan to use the latter approach.	This standard was effective January 1, 2019, and we adopted on that date.	We expect to record a right-of-use asset and lease liability for operating leases of approximately $650 million on our consolidated balance sheet as of January 1, 2019. Our accounting for capital leases will remain substantially unchanged. This standard will not have a material impact on our consolidated statement of operations.

Note 3: Divestiture and Acquisitions

Divestiture

Formation of Elanco and Initial Public Offering

On September 24, 2018, Elanco completed the IPO resulting in the issuance of 72.3 million shares of its common stock, which represents 19.8 percent of Elanco's outstanding shares, at $24 per share. Elanco shares began trading on the New York Stock Exchange under the symbol "ELAN" in September 2018.

In connection with the completion of the IPO, through a series of equity and other transactions, we transferred to Elanco the animal health businesses that form its business going forward. In exchange, Elanco transferred to us, or will transfer to us, consideration of approximately $4.2 billion, which consists primarily of the net proceeds from the IPO, the net proceeds from the debt offering completed by Elanco in August 2018, and the term loan facility entered into by Elanco during the period (see Note 10). The consideration that we receive is intended to be used for debt repayment, dividends, and/or share repurchases. The excess of the net proceeds from the IPO over the net book value of our divested interest was $629.2 million and was recorded in additional paid-in capital. Of our consolidated cash and cash equivalents as of December 31, 2018, approximately $475 million is retained by Elanco for working capital purposes.

We continue to consolidate Elanco, as we retain control over Elanco. The earnings attributable to the divested, noncontrolling interest for the period from the IPO until December 31, 2018 were not material. As of December 31, 2018, the noncontrolling interest of $1.02 billion associated with Elanco is reflected in noncontrolling interests in the consolidated balance sheet.

We have announced our intent to divest our remaining 293,290,000 shares of Elanco common stock through an exchange offer and on February 8, 2019, Elanco filed a registration statement on Form S-4 with the SEC. In the exchange offer, our shareholders can exchange all, some, or none of their shares of our common stock for shares of Elanco common stock owned by us, subject to the specific terms and conditions of the offer described in Elanco's registration statement. The completion of the exchange offer is subject to certain conditions, including at least 146,645,000 shares of Elanco common stock being distributed in exchange for shares of our common stock validly tendered in the exchange offer, and the receipt of an opinion of counsel that the exchange offer will qualify for tax-free treatment to us and our participating shareholders. However, the conditions of the exchange offer may not be satisfied; we may exchange less than our entire interest in Elanco; or we may decide to waive one or more of these conditions, to the extent legally permissible, and consummate the exchange offer even if all of the conditions are not satisfied. If the exchange offer is not fully subscribed, we intend, from time to time, to complete subsequent exchange offers and/or pro rata spin-off of our remaining interest in Elanco.

Acquisitions

During 2017, we completed the acquisition of Boehringer Ingelheim Vetmedica, Inc.'s U.S. feline, canine, and rabies vaccine portfolio and other related assets (BIVIVP). This transaction, as further discussed in this note below in Acquisitions of Businesses was accounted for as a business combination under the acquisition method of accounting. We also had an immaterial acquisition of a business in 2016. Under this method, the assets acquired and liabilities assumed were recorded at their respective fair values as of the acquisition date in our consolidated financial statements. The determination of estimated fair value required management to make significant estimates and assumptions. The excess of the purchase price over the fair value of the acquired net assets, where applicable,

has been recorded as goodwill. The results of operations of this acquisition have been included in our consolidated financial statements from the date of acquisition.

In addition to the acquisition of BIVIVP, we acquired assets in development in 2018, 2017, and 2016 which are further discussed in this note below in Asset Acquisitions. Upon acquisition, the acquired IPR&D charges related to these products were immediately expensed because the products had no alternative future use. For the years ended December 31, 2018, 2017, and 2016, we recorded acquired IPR&D charges of $1.98 billion, $1.11 billion, and $30.0 million, respectively. The acquired IPR&D charges in 2018 were primarily related to the acquisition of ARMO Biosciences, Inc. (ARMO). Substantially all of the value of ARMO was related to pegilodecakin, its only significant asset.

Acquisitions of Businesses

Boehringer Ingelheim Vetmedica, Inc. Vaccine Portfolio Acquisition

Overview of Transaction

On January 3, 2017, we acquired BIVIVP in an all-cash transaction for $882.1 million. Under the terms of the agreement, we acquired a manufacturing and research and development site and a U.S. vaccine portfolio including vaccines used for the treatment of bordetella, Lyme disease, rabies, and parvovirus, among others.

Assets Acquired and Liabilities Assumed

The following table summarizes the amounts recognized for assets acquired and liabilities assumed as of the acquisition date:

Estimated Fair Value at January 3, 2017		
Inventories	$	108.6
Marketed products[1]		297.0
Property and equipment		148.2
Other assets and liabilities - net		8.2
Total identifiable net assets		562.0
Goodwill[2]		320.1
Total consideration transferred - net of cash acquired	$	882.1

[1] These intangible assets, which are being amortized to cost of sales on a straight-line basis over their estimated useful lives, were expected to have a weighted average useful life of 10 years.

[2] The goodwill recognized from this acquisition is attributable primarily to expected synergies from combining the operations of BIVIVP with our legacy animal health business, future unidentified projects and products, and the assembled workforce of BIVIVP. The goodwill associated with this acquisition is deductible for tax purposes.

Subsequent Event - Loxo Oncology, Inc. (Loxo) Acquisition

Overview of transaction

On February 15, 2019, we acquired Loxo for a purchase price of $235 per share, or approximately $8 billion. Under the terms of the agreement, we acquired a pipeline of highly selective potential medicines for patients with genomically defined cancers. Loxo's pipeline includes LOXO-292, an oral RET inhibitor being studied across multiple tumor types, which recently was granted Breakthrough Therapy designation by the U.S. Food and Drug Administration. The accounting impact of this acquisition and the results of the operations for Loxo will be included in our consolidated financial statements beginning in the first quarter of 2019.

Assets Acquired and Liabilities Assumed

The initial accounting for this acquisition is incomplete. Significant, relevant information needed to complete the initial accounting is not available because the valuation of assets acquired and liabilities assumed is not complete. As a result, determining these values is not practicable and we are unable to disclose these values or provide other related disclosures at this time.

Asset Acquisitions

The following table and narrative summarize our asset acquisitions during 2018, 2017, and 2016.

Counterparty	Compound(s),Therapy, or Asset	Acquisition Month	Phase of Development[1]	Acquired IPR&D Expense
Sigilon Therapeutics	Encapsulated cell therapies for the potential treatment of type 1 diabetes	April 2018	Pre-clinical	$ 66.9
AurKa Pharma, Inc.	AK-01, an Aurora kinase A inhibitor	June 2018	Phase I	81.8
ARMO	Cancer therapy - pegilodecakin	June 2018	Phase III	1,475.8
Anima Biotech	Translation inhibitors for selected neuroscience targets	July 2018	Pre-clinical	30.0
SIGA Technologies, Inc.	Priority Review Voucher	October 2018	Not applicable	80.0
Chugai Pharmaceutical Company	OWL833, an oral non-peptidic GLP-1 receptor agonist	October 2018	Pre-clinical	50.0
NextCure, Inc.	Immuno-oncology cancer therapies	November 2018	Pre-clinical	28.1
Dicerna Pharmaceuticals	Cardio-metabolic disease, neurodegeneration, and pain	December 2018	Pre-clinical	148.7
Hydra Biosciences	TRPA1 antagonists program for the potential treatment of chronic pain syndromes	December 2018	Pre-clinical	22.6
CoLucid Pharmaceuticals, Inc. (CoLucid)	Oral therapy for the acute treatment of migraine - lasmiditan	March 2017	Phase III	857.6
KeyBioscience AG	Multiple molecules for treatment of metabolic disorders	July 2017	Phase II	55.0
Nektar Therapeutics	Immunological therapy - NKTR-358	August 2017	Phase I	150.0
CureVac AG	Cancer vaccines	November 2017	Pre-clinical	50.0
AstraZeneca	Antibody selective for amyloid-beta 42 (Aβ42) - MEDI1814	December 2016	Phase I	30.0

[1] The phase of development presented is as of the date of the arrangement and represents the phase of development of the most advanced asset acquired, where applicable.

In connection with these arrangements, our partners may be entitled to future royalties and/or commercial milestones based on sales should products be approved for commercialization and/or milestones based on the successful progress of compounds through the development process.

Subsequent Event - AC Immune SA

In January 2019, we entered into a license and collaboration agreement with AC Immune SA for the discovery and development of tau aggregation inhibitor small molecules for the potential treatment of Alzheimer's disease and other neurodegenerative diseases. Under terms of the agreement, we paid an upfront fee of CHF80.0 million and we will pay $50.0 million in exchange for a note, convertible to equity at a premium. As a result of this transaction, we will record an acquired IPR&D expense of $96.9 million in the first quarter of 2019.

Note 4: Collaborations and Other Arrangements

We often enter into collaborative and other similar arrangements to develop and commercialize drug candidates. Collaborative activities may include research and development, marketing and selling (including promotional activities and physician detailing), manufacturing, and distribution. These arrangements often require milestone and royalty or profit-share payments, contingent upon the occurrence of certain future events linked to the success of the asset in development, as well as expense reimbursements or payments to the collaboration partner. See Note 1 for amounts of collaboration and other revenue recognized from these types of arrangements.

Operating expenses for costs incurred pursuant to these arrangements are reported in their respective expense line item, net of any payments due to or reimbursements due from our collaboration partners, with such reimbursements being recognized at the time the party becomes obligated to pay. Each collaboration is unique in nature, and our more significant arrangements are discussed below.

Boehringer Ingelheim Diabetes Collaboration

We and Boehringer Ingelheim have a global agreement to jointly develop and commercialize a portfolio of diabetes compounds. Currently, included in the collaboration are Boehringer Ingelheim's oral diabetes products: Trajenta, Jentadueto®, Jardiance, Glyxambi®, and Synjardy®, as well as our basal insulin: Basaglar®.

The table below summarizes significant milestones (deferred) capitalized for the compounds included in this collaboration:

	Milestones (Deferred) Capitalized[1]	
Product Family	Year	Amount
Trajenta[2]	Cumulative[4]	$ 446.4
Jardiance[3]	Cumulative[4]	289.0
Basaglar	2018	—
	2017	—
	2016	(187.5)
	Cumulative[4]	(250.0)

[1] In connection with the regulatory approvals of Basaglar in the U.S., Europe, and Japan, milestone payments received were recorded as contract liabilities and are being amortized through the term of the collaboration (2029) to collaboration and other revenue. In connection with the regulatory approvals of Trajenta and Jardiance, milestone payments made were capitalized as intangible assets and are being amortized to cost of sales through the term of the collaboration.

[2] Jentadueto is included in the Trajenta product family. The collaboration agreement with Boehringer Ingelheim for Trajenta ends upon expiration of the compound patent and any supplementary protection certificates or extensions thereto.

[3] Glyxambi and Synjardy are included in the Jardiance product family. The collaboration agreement with Boehringer Ingelheim for Jardiance ends upon expiration of the compound patent and any supplementary protection certificates or extensions thereto.

[4] The cumulative amount represents the total amounts that have been (deferred) or capitalized from the start of this collaboration through the end of the reporting period.

In the most significant markets, we and Boehringer Ingelheim share equally the ongoing development costs, commercialization costs, and agreed upon gross margin for any product resulting from the collaboration. We record our portion of the gross margin associated with Boehringer Ingelheim's products as collaboration and other revenue. We record our sales of Basaglar to third parties as net product revenue with the payments made to Boehringer Ingelheim for their portion of the gross margin recorded as cost of sales. For all compounds under this collaboration, we record our portion of the development and commercialization costs as research and development expense and marketing, selling, and administrative expense, respectively. Each company is entitled to potential performance payments depending on the sales of the molecules it contributes to the collaboration. These performance payments result in the owner of the molecule retaining a greater share of the agreed upon gross margin of that product. Subject to achieving these thresholds, in a given period, our reported revenue for Trajenta and Jardiance may be reduced by any performance payments we make related to these products. Similarly, performance payments we may receive related to Basaglar effectively reduce Boehringer Ingelheim's share of the gross margin, which reduces our cost of sales.

The following table summarizes our collaboration and other revenue recognized with respect to the Trajenta and Jardiance families of products and net product revenue recognized with respect to Basaglar:

	2018	2017	2016
Basaglar	**$ 801.2**	$ 432.1	$ 86.1
Jardiance	**658.3**	447.5	201.9
Trajenta	**574.7**	537.9	436.6

Erbitux®

We have several collaborations with respect to Erbitux. The most significant collaborations are or, where applicable, were in Japan, and prior to the transfer of commercialization rights in the fourth quarter of 2015, the U.S. and Canada (Bristol-Myers Squibb Company); and worldwide except the U.S. and Canada (Merck KGaA). Certain rights to Erbitux outside the U.S. and Canada (North America) will remain with Merck KGaA (Merck) upon expiration of that agreement.

The following table summarizes our revenue recognized with respect to Erbitux:

	2018	2017	2016
Net product revenue	**$ 536.1**	$ 548.2	$ 587.0
Collaboration and other revenue	**99.2**	97.7	100.0
Revenue	**$ 635.3**	$ 645.9	$ 687.0

Bristol-Myers Squibb Company

Pursuant to commercial agreements with Bristol-Myers Squibb Company and E.R. Squibb (collectively, BMS), we had been co-developing Erbitux in North America exclusively with BMS. On October 1, 2015, BMS transferred their commercialization rights to us with respect to Erbitux in North America pursuant to a modification of our existing arrangement, and we began selling Erbitux at that time. This modification did not affect our rights with respect to Erbitux in other jurisdictions. In connection with the modification of terms, we provided consideration to BMS based upon a tiered percentage of net sales of Erbitux in North America estimated to average 38 percent through September 2018. The transfer of the commercialization rights was accounted for as an acquisition of a business. The consideration to be paid to BMS was accounted for as contingent consideration liability.

Merck KGaA

A development and license agreement granted Merck exclusive rights to market Erbitux outside of North America until December 2018. A separate agreement grants co-exclusive rights among Merck, BMS, and us in Japan and expires in 2032. This agreement was amended in 2015 to grant Merck exclusive commercialization rights in Japan but did not result in any other changes to our rights.

Merck manufactures Erbitux for supply in its territory, including Japan. We receive a royalty on the sales of Erbitux outside of North America, which is included in collaboration and other revenue as the underlying sales occur. Royalties due to third parties are recorded as a reduction of collaboration and other revenue, net of any royalty reimbursements due from third parties.

Olumiant®

We have a worldwide license and collaboration agreement with Incyte Corporation (Incyte) which provides us the development and commercialization rights to its Janus tyrosine kinase (JAK) inhibitor compound, now known as Olumiant, and certain follow-on compounds, for the treatment of inflammatory and autoimmune diseases. Incyte has the right to receive tiered, double-digit royalty payments on future global sales with rates ranging up to 20 percent if the product is successfully commercialized. The agreement provides Incyte with options to co-develop these compounds on an indication-by-indication basis by funding 30 percent of the associated development costs from the initiation of a Phase IIb trial through regulatory approval in exchange for increased tiered royalties ranging up to percentages in the high twenties. Incyte exercised its option to co-develop Olumiant in rheumatoid arthritis in 2010 and psoriatic arthritis, atopic dermatitis, alopecia areata, and systemic lupus erythematosus (SLE) in 2017. The agreement calls for payments by us to Incyte associated with certain development, success-based regulatory, and sales-based milestones. The following table summarizes our milestones achieved:

Year	Event	Classification	Amount
2018	Regulatory approval in the U.S.	Intangible asset	**$ 100.0**
	Began Phase III testing for SLE	R&D Expense	**20.0**
2017	Regulatory approval in Europe	Intangible asset	65.0
	Regulatory approval in Japan	Intangible asset	15.0
	Began Phase III testing for atopic dermatitis	R&D expense	30.0
2016	Regulatory submissions in the U.S. and Europe	R&D expense	55.0

As of December 31, 2018, Incyte is eligible to receive up to $130.0 million of additional payments from us contingent upon certain development and success-based regulatory milestones. Incyte is also eligible to receive up to $150.0 million of potential sales-based milestones.

Effient®

We are in a collaborative arrangement with Daiichi Sankyo Co., Ltd. (Daiichi Sankyo) to develop, market, and promote Effient. Marketing rights for major territories are shown below. We and Daiichi Sankyo each have exclusive marketing rights in certain other territories.

Territory	Marketing Rights	Selling Party
U.S.	Co-promotion	Lilly
Major European markets	Co-promotion	Daiichi Sankyo
Japan	Exclusive	Daiichi Sankyo

The parties share approximately 50/50 in the profits, as well as in the costs of development and marketing in the co-promotion territories. A third party manufactures bulk product, and we produce the finished product for our exclusive and co-promotion territories, including the major European markets.

We record net product revenue in our exclusive and co-promotion territories where we are the selling party. Profit-share payments due to Daiichi Sankyo for co-promotion countries where we are the selling party are recorded as marketing, selling, and administrative expenses. Any profit-share payments due to us from Daiichi Sankyo for the major European markets are recorded as collaboration and other revenue. We also record our share of the expenses in these co-promotion territories as marketing, selling, and administrative expenses. In our exclusive territories, we pay Daiichi Sankyo a royalty specific to these territories. All royalties due to Daiichi Sankyo and the third-party manufacturer are recorded in cost of sales. Generic versions of Effient launched in the U.S. in the third quarter of 2017.

The following table summarizes our revenue recognized with respect to Effient:

	2018	2017	2016
Revenue	**$ 122.2**	$ 388.9	$ 535.2

Tanezumab

We have a collaboration agreement with Pfizer Inc. (Pfizer) to jointly develop and globally commercialize tanezumab for the treatment of osteoarthritis pain, chronic low back pain and cancer pain. Under the agreement, the companies share equally the ongoing development costs and, if successful, in gross margins and certain commercialization expenses. As of December 31, 2018, Pfizer is eligible to receive up to $350.0 million in success-based regulatory milestones and up to $1.23 billion in a series of sales-based milestones, contingent upon the commercial success of tanezumab.

Note 5: Asset Impairment, Restructuring, and Other Special Charges

The components of the charges included in asset impairment, restructuring, and other special charges in our consolidated statements of operations are described below:

	2018	2017	2016
Severance:			
Human pharmaceutical products	**$ 127.8**	$ 601.0	$ 85.9
Animal health products	**14.8**	96.4	40.8
Total severance	**142.6**	697.4	126.7
Pension and post-retirement medical charges associated with U.S. voluntary early retirement program (see Note 14):			
Human pharmaceutical products	**—**	446.7	—
Animal health products	**—**	67.0	—
Total pension and post-retirement medical charges associated with U.S. voluntary early retirement program	**—**	513.7	—
Asset impairment (gains from facility sales) and other special charges:			
Human pharmaceutical products	**46.0**	81.7	(13.0)
Animal health products	**293.4**	380.8	268.8
Total asset impairment and other special charges	**339.4**	462.5	255.8
Total asset impairment, restructuring, and other special charges	**$ 482.0**	$ 1,673.6	$ 382.5

Severance costs recognized during the years ended December 31, 2018, 2017 and 2016 were incurred as a result of actions taken to reduce our cost structure. Severance costs recognized in 2017 were associated with the U.S. voluntary early retirement program. During 2017, severance costs recognized in the U.S. and outside the U.S. were $412.5 million and $284.9 million, respectively. Substantially all of the severance costs incurred in 2016 and 2017 have been paid. Of the severance costs incurred during the year ended December 31, 2018, approximately half will be paid in 2019 and half will be paid in 2020.

Asset impairment and other special charges recognized during the year ended December 31, 2018 resulted primarily from asset impairment and other special charges related to the sale of the Posilac® (rbST) brand and the associated Augusta, Georgia manufacturing site, as well as the decision to suspend commercialization of Imrestor®, an animal health product. We also incurred expenses associated with the IPO and separation of Elanco.

Asset impairment and other special charges related to animal health products recognized during the year ended December 31, 2017 resulted primarily from asset impairments related to lower projected revenue for Posilac (rbST). The assets associated with Posilac (rbST) were written down to their fair values, which were determined based upon a discounted cash flow valuation. Impairment charges were recorded for the associated fixed assets and intangible asset of $151.5 million and $50.0 million, respectively. In addition, we incurred approximately $43.4 million of costs associated with the temporary shut down of our Puerto Rico facility following Hurricane Maria. The remaining asset impairment and other special charges recognized in 2017 and 2016 were primarily related to integration costs and asset impairments due to product rationalizations and site closures resulting from our acquisition and integration of Novartis Animal Health, including the closure of a manufacturing facility in Ireland in 2016 (refer to Note 8 for further detail relating to intangible asset impairments).

Note 6: Inventories

We use the last-in, first-out (LIFO) method for the majority of our inventories located in the continental U.S. Other inventories are valued by the first-in, first-out (FIFO) method. FIFO cost approximates current replacement cost. Inventories measured using LIFO must be valued at the lower of cost or market. Inventories measured using FIFO must be valued at the lower of cost or net realizable value.

Inventories at December 31 consisted of the following:

	2018	2017
Finished products	**$ 988.1**	$ 1,211.4
Work in process	**2,628.2**	2,697.7
Raw materials and supplies	**506.5**	488.8
Total (approximates replacement cost)	**4,122.8**	4,397.9
Increase (reduction) to LIFO cost	**(11.0)**	60.4
Inventories	**$ 4,111.8**	$ 4,458.3

Inventories valued under the LIFO method comprised $1.57 billion and $1.56 billion of total inventories at December 31, 2018 and 2017, respectively.

Note 7: Financial Instruments

Financial instruments that potentially subject us to credit risk consist principally of trade receivables and interest-bearing investments. Wholesale distributors of life-science products account for a substantial portion of our trade receivables; collateral is generally not required. We seek to mitigate the risk associated with this concentration through our ongoing credit-review procedures and insurance. A large portion of our cash is held by a few major financial institutions. We monitor our exposures with these institutions and do not expect any of these institutions to fail to meet their obligations. Major financial institutions represent the largest component of our investments in corporate debt securities. In accordance with documented corporate risk-management policies, we monitor the amount of credit exposure to any one financial institution or corporate issuer. We are exposed to credit-related losses in the event of nonperformance by counterparties to risk-management instruments but do not expect any counterparties to fail to meet their obligations given their high credit ratings.

We consider all highly liquid investments with a maturity of three months or less from the date of purchase to be cash equivalents. The cost of these investments approximates fair value.

Our equity investments are accounted for using three different methods depending on the type of equity investment:

- Investments in companies over which we have significant influence but not a controlling interest are accounted for using the equity method, with our share of earnings or losses reported in other-net, (income) expense.
- For equity investments that do not have readily determinable fair values, we measure these investments at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. Any change in recorded value is recorded in other-net, (income) expense.
- Our public equity investments are measured and carried at fair value. Any change in fair value is recognized in other-net, (income) expense.

We review equity investments other than public equity investments for indications of impairment on a regular basis.

Our derivative activities are initiated within the guidelines of documented corporate risk-management policies and are intended to offset losses and gains on the assets, liabilities, and transactions being hedged. Management reviews the correlation and effectiveness of our derivatives on a quarterly basis.

For derivative instruments that are designated and qualify as fair value hedges, the derivative instrument is marked to market with gains and losses recognized currently in income to offset the respective losses and gains recognized on the underlying exposure. For derivative instruments that are designated and qualify as cash flow hedges, gains and losses are reported as a component of accumulated other comprehensive loss and reclassified into earnings in the same period the hedged transaction affects earnings. For derivative and non-derivative instruments that are designated and qualify as net investment hedges, the foreign currency translation gains or losses due to spot rate fluctuations are reported as a component of accumulated other comprehensive loss. Derivative contracts that are not designated as hedging instruments are recorded at fair value with the gain or loss recognized in earnings during the period of change.

We may enter into foreign currency forward or option contracts to reduce the effect of fluctuating currency exchange rates (principally the euro, British pound, and the Japanese yen). Foreign currency derivatives used for hedging are put in place using the same or like currencies and duration as the underlying exposures. Forward and option contracts are principally used to manage exposures arising from subsidiary trade and loan payables and receivables denominated in foreign currencies. These contracts are recorded at fair value with the gain or loss recognized in other–net, (income) expense. We may enter into foreign currency forward and option contracts and currency swaps as fair value hedges of firm commitments. Forward contracts generally have maturities not exceeding 12 months. At December 31, 2018, we had outstanding foreign currency forward commitments to purchase 785.5 million U.S. dollars and sell 685.3 million euro; commitments to purchase 2.05 billion euro and sell 2.35 billion U.S. dollars; commitments to purchase 435.1 million U.S. dollars and sell 48.85 billion Japanese yen, commitments to purchase 255.6 million Swiss francs and sell 259.7 million U.S. dollars, commitments to purchase 388.3 million U.S. dollars and sell 306.7 million British pounds, and commitments to purchase 354.0 million British pounds and sell 448.1 million U.S. dollars which will all settle within 30 days.

Foreign currency exchange risk is also managed through the use of foreign currency debt and cross-currency interest rate swaps. Our foreign currency-denominated notes had carrying amounts of $3.40 billion and $3.70 billion as of December 31, 2018 and 2017, respectively, of which $2.65 billion and $3.70 billion have been designated as, and are effective as, economic hedges of net investments in certain of our euro-denominated and Swiss franc-denominated foreign operations as of December 31, 2018 and 2017, respectively. Our cross-currency interest rate swaps, for which a majority convert a portion of our U.S. dollar-denominated floating rate debt to foreign-denominated floating rate debt, have also been designated as, and are effective as, economic hedges of net investments. At December 31, 2018, we had outstanding cross currency swaps with notional amounts of $2.46 billion swapping U.S. dollars to euro and $350.0 million swapping U.S. dollars to British pounds, which all will settle within 12 months.

In the normal course of business, our operations are exposed to fluctuations in interest rates which can vary the costs of financing, investing, and operating. We seek to address a portion of these risks through a controlled program of risk management that includes the use of derivative financial instruments. The objective of controlling these risks is to limit the impact of fluctuations in interest rates on earnings. Our primary interest-rate risk exposure results from changes in short-term U.S. dollar interest rates. In an effort to manage interest-rate exposures, we strive to achieve an acceptable balance between fixed- and floating-rate debt and investment positions and may enter into interest rate swaps or collars to help maintain that balance.

Interest rate swaps or collars that convert our fixed-rate debt to a floating rate are designated as fair value hedges of the underlying instruments. Interest rate swaps or collars that convert floating-rate debt to a fixed rate are designated as cash flow hedges. Interest expense on the debt is adjusted to include the payments made or received under the swap agreements. Cash proceeds from or payments to counterparties resulting from the termination of interest rate swaps are classified as operating activities in our consolidated statements of cash flows. At December 31, 2018, substantially all of our total long-term debt is at a fixed rate. We have converted approximately 20 percent of our long-term fixed-rate notes to floating rates through the use of interest rate swaps.

We may enter into forward contracts and designate them as cash flow hedges to limit the potential volatility of earnings and cash flow associated with forecasted sales of available-for-sale securities.

We also may enter into forward-starting interest rate swaps, which we designate as cash flow hedges, as part of any anticipated future debt issuances in order to reduce the risk of cash flow volatility from future changes in interest rates. Upon completion of a debt issuance and termination of the swap, the change in fair value of these instruments is recorded as part of other comprehensive income (loss) and is amortized to interest expense over the life of the underlying debt.

The Effect of Risk Management Instruments on the Consolidated Statements of Operations

The following effects of risk-management instruments were recognized in other–net, (income) expense:

	2018	2017	2016
Fair value hedges:			
Effect from hedged fixed-rate debt	**$ (40.9)**	$ (14.1)	$ (30.8)
Effect from interest rate contracts	**40.9**	14.1	30.8
Cash flow hedges:			
Effective portion of losses on interest rate contracts reclassified from accumulated other comprehensive loss	**14.8**	14.8	15.0
Net losses on foreign currency exchange contracts not designated as hedging instruments	**100.0**	97.9	78.8
Total	**$ 114.8**	$ 112.7	$ 93.8

During the years ended December 31, 2018, the amortization of losses related to the portion of our risk management hedging instruments, fair value hedges, and cash flow hedges that were excluded from the assessment of effectiveness were not material.

During the years ended December 31, 2017, and 2016, net losses related to ineffectiveness, as well as net losses related to the portion of our risk-management hedging instruments, fair value hedges, and cash flow hedges that were excluded from the assessment of effectiveness, were not material.

The Effect of Risk-Management Instruments on Other Comprehensive Income (Loss)

The effective portion of risk-management instruments that was recognized in other comprehensive income (loss) is as follows:

	2018	2017	2016
Net investment hedges:			
Foreign currency-denominated notes	**$ 110.4**	$ (361.5)	$ 137.5
Cross-currency interest rate swaps	**96.8**	(126.6)	32.5
Foreign currency exchange contracts	**5.7**	—	31.9
Cash flow hedges:			
Forward-starting interest rate swaps	—	13.0	(3.4)

During the next 12 months, we expect to reclassify $15.0 million of pretax net losses on cash flow hedges from accumulated other comprehensive loss to other–net, (income) expense. During the year ended December 31, 2018, the amounts excluded from the assessment of hedge effectiveness recognized in other comprehensive income (loss) was not material.

Fair Value of Financial Instruments

The following tables summarize certain fair value information at December 31 for assets and liabilities measured at fair value on a recurring basis, as well as the carrying amount and amortized cost of certain other investments:

Description	Carrying Amount	Cost [1]	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Fair Value
December 31, 2018						
Cash equivalents	**$ 5,752.2**	**$ 5,752.2**	**$ 5,752.2**	**$ —**	**$ —**	**$ 5,752.2**
Short-term investments:						
U.S. government and agency securities	**$ 16.9**	**$ 17.1**	**$ 16.9**	**$ —**	**$ —**	**$ 16.9**
Corporate debt securities	**62.2**	**62.6**	**—**	**62.2**	**—**	**62.2**
Asset-backed securities	**7.6**	**7.7**	**—**	**7.6**	**—**	**7.6**
Other securities	**1.5**	**1.5**	**—**	**1.5**	**—**	**1.5**
Short-term investments	**$ 88.2**					
Noncurrent investments:						
U.S. government and agency securities	**$ 149.1**	**$ 153.6**	**$ 149.1**	**$ —**	**$ —**	**$ 149.1**
Corporate debt securities	**568.0**	**587.8**	**—**	**568.0**	**—**	**568.0**
Mortgage-backed securities	**111.4**	**114.5**	**—**	**111.4**	**—**	**111.4**
Asset-backed securities	**27.7**	**27.9**	**—**	**27.7**	**—**	**27.7**
Other securities	**87.8**	**29.7**	**—**	**—**	**87.8**	**87.8**
Marketable equity securities	**357.5**	**238.3**	**357.5**	**—**	**—**	**357.5**
Equity investments without readily determinable fair values [2]	**414.7**					
Equity method investments [2]	**304.5**					
Noncurrent investments	**$ 2,020.7**					
December 31, 2017						
Cash equivalents	$ 4,763.9	$ 4,763.9	$ 4,712.4	$ 51.5	$ —	$ 4,763.9
Short-term investments:						
U.S. government and agency securities	$ 217.8	$ 218.2	$ 217.8	$ —	$ —	$ 217.8
Corporate debt securities	1,182.3	1,183.2	—	1,182.3	—	1,182.3
Asset-backed securities	94.2	94.3	—	94.2	—	94.2
Other securities	3.6	3.6	—	3.6	—	3.6
Short-term investments	$ 1,497.9					
Noncurrent investments:						
U.S. government and agency securities	$ 360.0	$ 365.0	$ 360.0	$ —	$ —	$ 360.0
Corporate debt securities	3,464.3	3,473.5	—	3,464.3	—	3,464.3
Mortgage-backed securities	202.4	204.2	—	202.4	—	202.4
Asset-backed securities	653.9	656.0	—	653.9	—	653.9
Other securities	132.1	66.4	—	—	132.1	132.1
Marketable equity securities	281.3	131.0	281.3	—	—	281.3
Cost and equity method investments [2]	584.8					
Noncurrent investments	$ 5,678.8					

[1] For available-for-sale debt securities, amounts disclosed represent the securities' amortized cost.

[2] Fair value disclosures are not applicable for equity method investments, investments accounted for under the measurement alternative for equity investments, and cost method investments that do not have readily determinable fair values.

Description	Carrying Amount	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair Value Measurements Using: Significant Other Observable Inputs (Level 2)	Fair Value Measurements Using: Significant Unobservable Inputs (Level 3)	Fair Value
Short-term commercial paper borrowings					
December 31, 2018	**$ (498.9)**	**$ —**	**$ (497.6)**	**$ —**	**$ (497.6)**
December 31, 2017	(2,696.8)	—	(2,690.6)	—	(2,690.6)
Long-term debt, including current portion					
December 31, 2018	**$ (12,272.0)**	**$ —**	**$ (12,461.7)**	**$ —**	**$ (12,461.7)**
December 31, 2017	(10,950.3)	—	(11,529.9)	—	(11,529.9)

Description	Carrying Amount	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Fair Value
December 31, 2018					
Risk-management instruments					
Interest rate contracts designated as fair value hedges:					
Sundry	**$ 4.5**	**$ —**	**$ 4.5**	**$ —**	**$ 4.5**
Other current liabilities	**(22.3)**	**—**	**(22.3)**	**—**	**(22.3)**
Other noncurrent liabilities	**(19.0)**	**—**	**(19.0)**	**—**	**(19.0)**
Cross-currency interest rate contracts designated as net investment hedges:					
Other receivables	**69.2**	**—**	**69.2**	**—**	**69.2**
Sundry	**8.2**	**—**	**8.2**	**—**	**8.2**
Other current liabilities	**(9.2)**	**—**	**(9.2)**	**—**	**(9.2)**
Other noncurrent liabilities	**(25.8)**	**—**	**(25.8)**	**—**	**(25.8)**
Foreign exchange contracts not designated as hedging instruments:					
Other receivables	**11.3**	**—**	**11.3**	**—**	**11.3**
Other current liabilities	**(16.3)**	**—**	**(16.3)**	**—**	**(16.3)**
Contingent consideration liabilities:					
Other current liabilities	**(5.1)**	**—**	**—**	**(5.1)**	**(5.1)**
Other noncurrent liabilities	**(69.0)**	**—**	**—**	**(69.0)**	**(69.0)**
December 31, 2017					
Risk-management instruments					
Interest rate contracts designated as fair value hedges:					
Other receivables	$ 0.8	$ —	$ 0.8	$ —	$ 0.8
Sundry	35.1	—	35.1	—	35.1
Other current liabilities	(0.2)	—	(0.2)	—	(0.2)
Other noncurrent liabilities	(10.5)	—	(10.5)	—	(10.5)
Cross-currency interest rate contracts designated as net investment hedges:					
Other current liabilities	(33.4)	—	(33.4)	—	(33.4)
Other noncurrent liabilities	(26.0)	—	(26.0)	—	(26.0)
Foreign exchange contracts not designated as hedging instruments:					
Other receivables	26.8	—	26.8	—	26.8
Other current liabilities	(36.0)	—	(36.0)	—	(36.0)
Contingent consideration liabilities:					
Other current liabilities	(208.0)	—	—	(208.0)	(208.0)
Other noncurrent liabilities	(45.2)	—	—	(45.2)	(45.2)

Risk-management instruments above are disclosed on a gross basis. There are various rights of setoff associated with certain of the risk-management instruments above that are subject to an enforceable master netting arrangement or similar agreements. Although various rights of setoff and master netting arrangements or similar agreements may exist with the individual counterparties to the risk-management instruments above, individually, these financial rights are not material.

We determine our Level 1 and Level 2 fair value measurements based on a market approach using quoted market values, significant other observable inputs for identical or comparable assets or liabilities, or discounted cash flow analyses. Level 3 fair value measurements for other investment securities are determined using unobservable inputs, including the investments' cost adjusted for impairments and price changes from orderly transactions. The

fair values of equity method investments and investments measured under the measurement alternative for equity investments that do not have readily determinable fair values are not readily available.

Contingent consideration liabilities were recorded at fair value and were estimated using a discounted cash flow analysis and Level 3 inputs, including projections representative of a market participant view for net sales and an estimated discount rate. The decrease in the fair value of the contingent consideration liabilities during the years ended December 31, 2018 and 2017 was due primarily to cash payments of $215.9 million and $203.9 million, which primarily related to Erbitux (see Note 4). The change in the fair value of the contingent consideration liabilities recognized in earnings during the years ended December 31, 2018, 2017, and 2016 due to changes in time value of money was not material.

The table below summarizes the contractual maturities of our investments in debt securities measured at fair value as of December 31, 2018:

	Maturities by Period				
	Total	Less Than 1 Year	1-5 Years	6-10 Years	More Than 10 Years
Fair value of debt securities	$ 943.0	$ 86.8	$ 604.8	$ 97.0	$ 154.4

A summary of the fair value of available-for-sale securities in an unrealized gain or loss position and the amount of unrealized gains and losses (pretax) in accumulated other comprehensive loss follows:

	2018	2017
Unrealized gross gains	**$ 0.8**	$ 184.7
Unrealized gross losses	**29.0**	47.5
Fair value of securities in an unrealized gain position	**84.3**	1,434.2
Fair value of securities in an unrealized loss position	**858.6**	4,692.8

The unrealized losses (pretax) recognized in our consolidated statement of operations for equity securities held as of December 31, 2018 was $20.1 million.

We periodically assess our investment in available-for-sale securities for other-than-temporary impairment losses. There were no other-than-temporary impairment losses recognized in 2018 or 2017. Other-than-temporary impairment losses recognized during the year ended December 31, 2016 totaled $53.0 million. Other-than-temporary impairment losses recognized during 2016 related primarily to our cost and equity method investments.

We periodically assess our investments in equity securities other than public equity securities for impairment losses. Impairment losses recognized on these equity securities in 2018 were immaterial.

For fixed-income securities, the amount of credit losses are determined by comparing the difference between the present value of future cash flows expected to be collected on these securities and the amortized cost. Factors considered in assessing credit losses include the position in the capital structure, vintage and amount of collateral, delinquency rates, current credit support, and geographic concentration.

For equity securities, factors considered in assessing impairment losses include the financial condition and near term prospects of the issuer and general market conditions and industry specific factors.

As of December 31, 2018, the available-for-sale securities in an unrealized loss position include primarily fixed-rate debt securities of varying maturities, which are sensitive to changes in the yield curve and other market conditions. Approximately 55 percent of the fixed-rate debt securities in a loss position are investment-grade debt securities. As of December 31, 2018, we do not intend to sell, and it is not more likely than not that we will be required to sell, the securities in a loss position before the market values recover or the underlying cash flows have been received, and there is no indication of default on interest or principal payments for any of our debt securities.

Activity related to our investment portfolio, substantially all of which related to equity and available-for-sale securities, was as follows:

	2018	2017	2016
Proceeds from sales	**$ 5,668.0**	$ 5,769.3	$ 3,240.5
Realized gross gains on sales	**11.8**	176.0	30.7
Realized gross losses on sales	**51.3**	5.8	14.6

Realized gains and losses on sales of available-for-sale investments are computed based upon specific identification of the initial cost adjusted for any other-than-temporary declines in fair value that were recorded in earnings.

Adjustments recorded to our equity investments without readily determinable fair values are based upon changes in the equity instrument's value resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. Downward adjustments resulting from an impairment are recorded based upon the impairment considerations mentioned above. Adjustments recorded during 2018 were not material.

Accounts Receivable Factoring Arrangements

We have entered into accounts receivable factoring agreements with financial institutions to sell certain of our non-U.S. accounts receivable. These transactions are accounted for as sales and result in a reduction in accounts receivable because the agreements transfer effective control over and risk related to the receivables to the buyers. Our factoring agreements do not allow for recourse in the event of uncollectibility, and we do not retain any interest in the underlying accounts receivable once sold. We derecognized $696.2 million and $723.2 million of accounts receivable as of December 31, 2018 and 2017, respectively, under these factoring arrangements. The costs of factoring such accounts receivable on our consolidated results of operations for the years ended December 31, 2018, 2017, and 2016 were not material.

Note 8: Goodwill and Other Intangibles

Goodwill

Goodwill by segment at December 31 was as follows:

	2018	2017
Human pharmaceutical products	**$ 1,366.6**	$ 1,366.8
Animal health	**2,980.9**	3,003.3
Total goodwill	**$ 4,347.5**	$ 4,370.1

Goodwill results from excess consideration in a business combination over the fair value of identifiable net assets acquired. Goodwill is not amortized but is reviewed for impairment at least annually and when impairment indicators are present. When required, a comparison of the fair value of the reporting unit to its carrying amount including goodwill is used to determine the amount of any impairment. The change in goodwill is the result of disposal of businesses and foreign exchange translation adjustments.

No impairments occurred with respect to the carrying value of goodwill for the years ended December 31, 2018, 2017, and 2016.

Other Intangibles

The components of intangible assets other than goodwill at December 31 were as follows:

	2018			2017		
Description	Carrying Amount, Gross	Accumulated Amortization	Carrying Amount, Net	Carrying Amount, Gross	Accumulated Amortization	Carrying Amount, Net
Finite-lived intangible assets:						
Marketed products	**$ 5,270.7**	**$ (1,848.2)**	**$ 3,422.5**	$ 7,682.0	$ (3,851.1)	$ 3,830.9
Other	**142.6**	**(63.7)**	**78.9**	171.2	(70.1)	101.1
Total finite-lived intangible assets	**5,413.3**	**(1,911.9)**	**3,501.4**	7,853.2	(3,921.2)	3,932.0
Indefinite-lived intangible assets:						
Acquired in-process research and development	**19.6**	**—**	**19.6**	97.2	—	97.2
Other intangibles	**$ 5,432.9**	**$ (1,911.9)**	**$ 3,521.0**	$ 7,950.4	$ (3,921.2)	$ 4,029.2

Marketed products consist of the amortized cost of the rights to assets acquired in business combinations and approved for marketing in a significant global jurisdiction (U.S., Europe, and Japan) and capitalized milestone payments. For transactions other than a business combination, we capitalize milestone payments incurred at or after the product has obtained regulatory approval for marketing.

Other finite-lived intangibles consist primarily of the amortized cost of licensed platform technologies that have alternative future uses in research and development, manufacturing technologies, and customer relationships from business combinations.

Acquired IPR&D consists of the related costs capitalized, adjusted for subsequent impairments, if any. The costs of acquired IPR&D projects acquired directly in a transaction other than a business combination are capitalized if the projects have an alternative future use; otherwise, they are expensed immediately. The fair values of acquired IPR&D projects acquired in business combinations are capitalized as other intangible assets.

Several methods may be used to determine the estimated fair value of other intangibles acquired in a business combination. We utilize the "income method," which is a Level 3 fair value measurement and applies a probability weighting that considers the risk of development and commercialization to the estimated future net cash flows that are derived from projected revenues and estimated costs. These projections are based on factors such as relevant market size, patent protection, historical pricing of similar products, and expected industry trends. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. This analysis is performed for each asset independently. The acquired IPR&D assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are tested for impairment and amortized over the remaining useful life or written off, as appropriate.

See Note 4 for additional discussion of recent capitalized milestone payments.

Other indefinite-lived intangible assets are reviewed for impairment at least annually and when impairment indicators are present. Finite-lived intangible assets are reviewed for impairment when an indicator of impairment is present. When required, a comparison of fair value to the carrying amount of assets is performed to determine the amount of any impairment. When determining the fair value of indefinite-lived acquired IPR&D as well as the fair value of finite-lived intangible assets for impairment testing purposes, we utilize the "income method" discussed above. During 2018, we had animal health intangible impairment charges of $68.9 million (comprised of a $55.9 million impairment of finite-lived intangible assets and a $13.0 million impairment of indefinite-lived intangible assets) which were recorded in asset impairment, restructuring and other special charges on the consolidated statements of operations. These impairments were primarily related to the sale of the Posilac (rbST) brand and competitive pressures for certain companion animal products resulting in a reduction of revenue. During 2017, we had animal health intangible impairment charges of $135.5 million (comprised of a $97.5 million impairment of finite-lived intangible assets and a $38.0 million impairment of indefinite-lived intangible assets) which were recorded in asset impairment, restructuring and other special charges on the consolidated statements of operations. These impairments were related to competitive pressures for certain companion animal products resulting in a reduction of revenue, as well as lower projected revenue for Posilac (rbST). No material impairments occurred with respect to the carrying value of other intangible assets for the year ended December 31, 2016.

Intangible assets with finite lives are capitalized and are amortized over their estimated useful lives, ranging from three to 20 years. As of December 31, 2018, the remaining weighted-average amortization period for finite-lived intangible assets was approximately 12 years.

Amortization expense related to finite-lived intangible assets was as follows:

	2018	2017	2016
Amortization expense	**$ 558.7**	$ 683.4	$ 687.9

The estimated amortization expense for each of the next five years associated with our finite-lived intangible assets as of December 31, 2018 is as follows:

	2019	2020	2021	2022	2023
Estimated amortization expense	$ 343.3	$ 342.3	$ 339.6	$ 329.8	$ 318.4

Amortization expense is included in either cost of sales, marketing, selling, and administrative or research and development depending on the nature of the intangible asset being amortized.

Note 9: Property and Equipment

Property and equipment is stated on the basis of cost. Provisions for depreciation of buildings and equipment are computed generally by the straight-line method at rates based on their estimated useful lives (12 to 50 years for buildings and three to 25 years for equipment). We review the carrying value of long-lived assets for potential impairment on a periodic basis and whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. Impairment is determined by comparing projected undiscounted cash flows to be generated by the asset to its carrying value. If an impairment is identified, a loss is recorded equal to the excess of the asset's net book value over its fair value, and the cost basis is adjusted.

At December 31, property and equipment consisted of the following:

	2018	2017
Land	**$ 193.1**	$ 192.7
Buildings	**7,683.8**	7,425.6
Equipment	**8,817.4**	8,689.0
Construction in progress	**1,769.7**	1,783.8
	18,464.0	18,091.1
Less accumulated depreciation	**(9,544.5)**	(9,264.6)
Property and equipment, net	**$ 8,919.5**	$ 8,826.5

Depreciation expense related to property and equipment and rental expense for all leases, including contingent rentals (not material), was as follows:

	2018	2017	2016
Depreciation expense	**$ 879.6**	$ 763.1	$ 716.2
Rental expense	**223.2**	224.5	221.0

The future minimum rental commitments under non-cancelable operating leases are as follows:

	2019	2020	2021	2022	2023	After 2023
Lease commitments	$ 155.8	$ 128.0	$ 89.0	$ 74.7	$ 58.2	$ 299.5

Capitalized interest costs were not material for the years ended December 31, 2018, 2017, and 2016.

Assets under capital leases included in property and equipment, net on the consolidated balance sheets, capital lease obligations entered into, and future minimum rental commitments are not material.

Note 10: Borrowings

Debt at December 31 consisted of the following:

	2018	2017
Short-term commercial paper borrowings	**$ 498.9**	$ 2,696.8
0.15 to 7.13 percent long-term notes (due 2019-2047)	**11,640.8**	10,756.7
Other long-term debt	**503.1**	13.6
Unamortized debt issuance costs	**(49.1)**	(49.0)
Fair value adjustment on hedged long-term notes	**177.2**	229.0
Total debt	**12,770.9**	13,647.1
Less current portion	**(1,131.2)**	(3,706.6)
Long-term debt	**$ 11,639.7**	$ 9,940.5

The weighted-average effective borrowing rate on outstanding commercial paper at December 31, 2018 was 2.36 percent.

At December 31, 2018, we had a total of $6.17 billion of unused committed bank credit facilities, which consisted primarily of a $3.00 billion credit facility that expires in December 2023 and a $2.00 billion 364-day facility that expires in December 2019, both of which are available to support our commercial paper program. We have not drawn against the $3.00 billion and $2.00 billion facilities. Of the remaining facilities, there was $25.9 million outstanding under the revolving credit facilities as of December 31, 2018, and $6.0 million was outstanding under these facilities as of December 31, 2017. Compensating balances and commitment fees are not material, and there are no conditions that are probable of occurring under which the lines may be withdrawn.

In August 2018, our subsidiary, Elanco, issued $2.00 billion of senior notes in a private placement. The senior notes are comprised of $500.0 million of 3.91 percent senior notes due in August 2021, $750.0 million of 4.27 percent senior notes due in August 2023, and $750.0 million of 4.90 percent senior notes due in August 2028. Interest is to be paid semi-annually and the interest rate payable on each series of senior notes is subject to adjustment if certain bond rating agencies downgrade, or subsequently upgrade, their ratings on the respective series of senior notes.

The indenture that governs the Elanco senior notes contains covenants, including limitations on the ability of Elanco and certain Elanco subsidiaries to incur liens or engage in sale-leaseback transactions. The indenture also contains restrictions on Elanco's ability to consolidate, merge or sell substantially all of their assets, in addition to other customary terms. Elanco was in compliance with all such covenants under the indentures governing the senior notes as of December 31, 2018.

Elanco has entered into an agreement that requires it to use commercially reasonable efforts to cause a registration statement to become effective with the SEC by August 28, 2019, relating to an offer to exchange the senior notes for registered senior notes having substantially identical terms, or in certain cases, to register the senior notes for resale. If they do not register or exchange the senior notes pursuant to the terms of the registration rights agreement, they will be required to pay additional interest to the holders of the senior notes under certain circumstances.

In September 2018, Elanco entered into a revolving credit agreement with a syndicate of banks providing for a five-year $750.0 million senior revolving credit facility (Revolving Facility). The Revolving Facility bears interest at a variable rate plus specified margin as defined in the agreement and is payable quarterly. There were no borrowings outstanding under the Revolving Facility at December 31, 2018. The Revolving Facility is payable in full at the end of the term.

In September 2018, Elanco also entered into a $500.0 million three-year term loan under a term credit facility with a syndicate of banks (the Term Facility and collectively with the Revolving Facility, the Credit Facilities). The Term Facility bears interest at a variable rate plus margin as defined in the Term Facility and is payable quarterly. The Term Facility is payable in full at the end of the term.

The Credit Facilities are subject to various financial and other covenants including restrictions on Elanco's level of borrowings based on their consolidated leverage ratio and their consolidated interest coverage ratio. Elanco was in compliance with all such covenants as of December 31, 2018.

The aggregate net proceeds of the senior notes and Term Facility were $2.48 billion. See Note 3 for a discussion of the use of the proceeds of the debt offerings as part of the formation of Elanco and its IPO.

In May 2017, we issued $750.0 million of 2.35 percent fixed-rate notes due in May 2022, $750.0 million of 3.10 percent fixed-rate notes due in May 2027, and $750.0 million of 3.95 percent fixed-rate notes due in May 2047, with interest to be paid semi-annually. We are using the net proceeds of $2.23 billion from the sale of these notes for general corporate purposes, which included the repayment of notes due in 2018 and may include the repayment of notes due in 2019. Prior to such uses, we may temporarily invest the net proceeds in investment securities.

The aggregate amounts of maturities on long-term debt for the next five years are as follows:

	2019	2020	2021	2022	2023
Maturities on long-term debt	$ 634.5	$ 33.5	$ 942.3	$ 1,439.0	$ 750.3

We have converted approximately 20 percent of our long-term fixed-rate notes to floating rates through the use of interest rate swaps. The weighted-average effective borrowing rates based on long-term debt obligations and interest rates at December 31, 2018 and 2017, including the effects of interest rate swaps for hedged debt obligations, were 3.36 percent and 2.65 percent, respectively.

The aggregate amount of cash payments for interest on borrowings, net of capitalized interest, are as follows:

	2018	2017	2016
Cash payments for interest on borrowings	**$ 223.8**	$ 192.7	$ 146.4

In accordance with the requirements of derivatives and hedging guidance, the portion of our fixed-rate debt obligations that is hedged as a fair value hedge is reflected in the consolidated balance sheets as an amount equal to the sum of the debt's carrying value plus the fair value adjustment representing changes in fair value of the hedged debt attributable to movements in market interest rates subsequent to the inception of the hedge.

Note 11: Stock-Based Compensation

Our stock-based compensation expense consists of performance awards (PAs), shareholder value awards (SVAs), and restricted stock units (RSUs). We recognize the fair value of stock-based compensation as expense over the requisite service period of the individual grantees, which generally equals the vesting period. We provide newly issued shares of our common stock and treasury stock to satisfy the issuance of PA, SVA, and RSU shares.

Stock-based compensation expense and the related tax benefits were as follows:

	2018	2017	2016
Stock-based compensation expense	**$ 279.5**	$ 281.3	$ 255.3
Tax benefit	**58.7**	70.5	89.4

At December 31, 2018, stock-based compensation awards may be granted under the 2002 Lilly Stock Plan for not more than 53.3 million additional shares.

Performance Award Program

PAs are granted to officers and management and are payable in shares of our common stock. The number of PA shares actually issued, if any, varies depending on the achievement of certain pre-established earnings-per-share targets over a two-year period. PA shares are accounted for at fair value based upon the closing stock price on the date of grant and fully vest at the end of the measurement period. The fair values of PAs granted for the years ended December 31, 2018, 2017, and 2016 were $71.63, $73.54, and $72.00, respectively. The number of shares ultimately issued for the PA program is dependent upon the EPS achieved during the vesting period. Pursuant to this program, approximately 0.9 million shares, 1.3 million shares, and 0.5 million shares were issued during the years ended December 31, 2018, 2017, and 2016, respectively. Approximately 1.2 million shares are expected to be issued in 2019. As of December 31, 2018, the total remaining unrecognized compensation cost related to nonvested PAs was $63.7 million, which will be amortized over the weighted-average remaining requisite service period of 12 months.

Shareholder Value Award Program

SVAs are granted to officers and management and are payable in shares of our common stock. The number of shares actually issued, if any, varies depending on our stock price at the end of the three-year vesting period compared to pre-established target stock prices. We measure the fair value of the SVA unit on the grant date using a Monte Carlo simulation model. The model utilizes multiple input variables that determine the probability of satisfying the market condition stipulated in the award grant and calculates the fair value of the award. Expected volatilities utilized in the model are based on implied volatilities from traded options on our stock, historical volatility of our stock price, and other factors. Similarly, the dividend yield is based on historical experience and our estimate of future dividend yields. The risk-free interest rate is derived from the U.S. Treasury yield curve in effect at the time of grant. The weighted-average fair values of the SVA units granted during the years ended December 31, 2018, 2017, and 2016 were $48.51, $66.25, and $48.68, respectively, determined using the following assumptions:

(Percents)	2018	2017	2016
Expected dividend yield	**2.50%**	2.50%	2.00%
Risk-free interest rate	**2.31**	1.38	0.92
Volatility	**22.26**	22.91	21.68

Pursuant to this program, approximately 0.7 million shares, 1.1 million shares, and 1.0 million shares were issued during the years ended December 31, 2018, 2017, and 2016, respectively. Approximately 1.0 million shares are expected to be issued in 2019. As of December 31, 2018, the total remaining unrecognized compensation cost related to nonvested SVAs was $55.7 million, which will be amortized over the weighted-average remaining requisite service period of 20 months.

Restricted Stock Units

RSUs are granted to certain employees and are payable in shares of our common stock. RSU shares are accounted for at fair value based upon the closing stock price on the date of grant. The corresponding expense is amortized over the vesting period, typically three years. The fair values of RSU awards granted during the years ended December 31, 2018, 2017, and 2016 were $70.95, $72.47, and $71.46, respectively. The number of shares ultimately issued for the RSU program remains constant with the exception of forfeitures. Pursuant to this program, 1.3 million, 1.4 million, and 1.3 million shares were granted and approximately 1.0 million, 0.9 million, and 0.6 million shares were issued during the years ended December 31, 2018, 2017, and 2016, respectively. Approximately 0.8 million shares are expected to be issued in 2019. As of December 31, 2018, the total remaining unrecognized compensation cost related to nonvested RSUs was $112.2 million, which will be amortized over the weighted-average remaining requisite service period of 21 months.

Note 12: Shareholders' Equity

During 2018, 2017, and 2016, we repurchased $4.15 billion, $359.8 million and $540.1 million, respectively, of shares associated with our share repurchase programs. A payment of $60.0 million was made in 2016 for shares repurchased in 2017.

During 2018, we repurchased $2.05 billion of shares, which completed the $5.00 billion share repurchase program announced in October 2013 and our board authorized an $8.00 billion share repurchase program. There were $2.10 billion repurchased under the $8.00 billion program in 2018. As of December 31, 2018, there were $5.90 billion of shares remaining under the 2018 program.

We have 5.0 million authorized shares of preferred stock. As of December 31, 2018 and 2017, no preferred stock was issued.

We have an employee benefit trust that held 50.0 million shares of our common stock at both December 31, 2018 and 2017, to provide a source of funds to assist us in meeting our obligations under various employee benefit plans. The cost basis of the shares held in the trust was $3.01 billion at both December 31, 2018 and 2017, and is shown as a reduction of shareholders' equity. Any dividend transactions between us and the trust are eliminated. Stock held by the trust is not considered outstanding in the computation of EPS. The assets of the trust were not used to fund any of our obligations under these employee benefit plans during the years ended December 31, 2018, 2017, and 2016.

Note 13: Income Taxes

2017 Tax Act

In December 2017, the President of the U.S. signed into law the 2017 Tax Act. The 2017 Tax Act included significant changes to the U.S. corporate income tax system, such as the reduction in the corporate income tax rate from 35 percent to 21 percent, transition to a territorial tax system, changes to business related exclusions, deductions and credits, and modifications to international tax provisions, including a one-time repatriation transition tax (also known as the 'Toll Tax') on unremitted foreign earnings.

GAAP requires that the income tax accounting effects from a change in tax laws or tax rates be recognized in continuing operations in the reporting period that includes the enactment date of the change. These effects include, among other things, re-measuring deferred tax assets and liabilities, evaluating deferred tax assets for valuation allowances, and assessing the impact of the Toll Tax and certain other provisions of the 2017 Tax Act. Our accounting for the tax effects of the enactment of the 2017 Tax Act was not complete as of December 31, 2017; however, in certain cases we made a reasonable estimate. In other cases, we were not able to make a reasonable estimate and continued to account for those items based on our existing accounting model under ASC 740, *Income Taxes*, and the provisions of the tax laws that were in effect immediately prior to enactment. For the items for which we were able to determine a reasonable estimate, we recognized a provisional amount of $1.91 billion, which was included as a component of income tax expense from continuing operations. Our accounting for the effects of the 2017 Tax Act was completed in the current period, and we recorded $313.3 million of income tax benefit in 2018, mainly attributable to measurement period adjustments to the Toll Tax and the global intangible low-taxed income (GILTI) provision, the new U.S. minimum tax on the earnings of our foreign subsidiaries. Related to GILTI, we elected to establish deferred taxes in the amount of $1.68 billion for the reversal of temporary items in future years.

Subsequent to the enactment of the 2017 Tax Act, additional guidance was issued, including Notices, Proposed Regulations, and Final Regulations. We expect that further guidance will continue to be issued in 2019 which may impact our interpretations of the 2017 Tax Act and could materially affect the estimates used.

Deferred taxes are recognized for the future tax effects of temporary differences between financial and income tax reporting based on enacted tax laws and rates.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate resolution.

Following is the composition of income tax expense:

	2018	2017	2016
Current:			
Federal	**$ (54.3)**	$ (100.6)	$ (57.0)
Foreign	**80.0**	38.5	378.9
State	**9.7**	4.0	(125.0)
2017 Tax Act	**201.5**	3,247.5	—
Total current tax expense	**236.9**	3,189.4	196.9
Deferred:			
Federal	**64.0**	801.5	517.0
Foreign	**285.6**	(256.3)	(83.3)
State	**3.4**	0.4	5.8
2017 Tax Act	**(26.2)**	(1,333.5)	—
Total deferred tax (benefit) expense	**326.8**	(787.9)	439.5
Income taxes	**$ 563.7**	$ 2,401.5	$ 636.4

Significant components of our deferred tax assets and liabilities as of December 31 are as follows:

	2018	2017
Deferred tax assets:		
Purchases of intangible assets	**$ 2,655.9**	$ 443.1
Compensation and benefits	**814.2**	1,021.7
Tax credit carryforwards and carrybacks	**365.2**	473.0
Tax loss carryforwards and carrybacks	**271.7**	501.4
Product return reserves	**100.5**	88.4
Other comprehensive loss on hedging transactions	**68.9**	68.9
Debt	**40.3**	53.5
Contingent consideration	**17.7**	41.8
Other	**714.7**	555.8
Total gross deferred tax assets	**5,049.1**	3,247.6
Valuation allowances	**(596.3)**	(709.1)
Total deferred tax assets	**4,452.8**	2,538.5
Deferred tax liabilities:		
Earnings of foreign subsidiaries	**(1,692.3)**	(16.6)
Inventories	**(658.4)**	(654.8)
Property and equipment	**(311.7)**	(282.1)
Prepaid employee benefits	**(240.1)**	(231.5)
Intangibles	**(250.5)**	(314.6)
Financial instruments	**(22.7)**	(41.5)
Total deferred tax liabilities	**(3,175.7)**	(1,541.1)
Deferred tax assets - net	**$ 1,277.1**	$ 997.4

Our accounting for the effects of the 2017 Tax Act was completed in the current period; therefore, deferred tax assets and liabilities reflect re-measurement resulting from the 2017 Tax Act.

The deferred tax asset and related valuation allowance amounts for U.S. federal and state net operating losses and tax credits shown above have been reduced for differences between financial reporting and tax return filings.

At December 31, 2018, based on filed tax returns we have tax credit carryforwards and carrybacks of $735.4 million available to reduce future income taxes; $150.5 million, if unused, will expire by 2027. The remaining portion of the tax credit carryforwards is related to federal tax credits of $122.9 million, international tax credits of $122.7 million, and state tax credits of $339.4 million, all of which are substantially reserved.

At December 31, 2018, based on filed tax returns we had net operating losses and other carryforwards for international and U.S. federal income tax purposes of $922.8 million: $102.4 million will expire by 2023; $521.5 million will expire between 2024 and 2038; and $298.9 million of the carryforwards will never expire. Net operating losses and other carryforwards for international and U.S. federal income tax purposes are partially reserved. Deferred tax assets related to state net operating losses of $106.1 million and other state carryforwards of $2.6 million are fully reserved.

Domestic and Puerto Rican companies contributed approximately 16 percent, 15 percent, and 70 percent for the years ended December 31, 2018, 2017, and 2016, respectively, to consolidated income before income taxes. We have a subsidiary operating in Puerto Rico under a tax incentive grant effective through the end of 2031.

The 2017 Tax Act introduced international tax provisions that fundamentally change the U.S. taxation of foreign earnings. As a result, substantially all of the unremitted earnings of our foreign subsidiaries are considered to not be indefinitely reinvested for continued use in our foreign operations. At December 31, 2018, we have accrued an immaterial amount of foreign withholding taxes and state income taxes that would be owed upon future distributions of unremitted earnings of our foreign subsidiaries that are not indefinitely reinvested. For the amount considered to be indefinitely reinvested, it is not practicable to determine the amount of the related deferred income tax liability due to the complexities in the tax laws and assumptions we would have to make.

Cash payments of income taxes were as follows:

	2018	2017	2016
Cash payments of income taxes	**$ 1,101.5**	$ 246.5	$ 700.6

The 2017 Tax Act provided an election to taxpayers subject to the Toll Tax to make payments over an eight-year period. We made this election; therefore, we have included Toll Tax payments accordingly.

Following is a reconciliation of the income tax expense applying the U.S. federal statutory rate to income before income taxes to reported income tax expense:

	2018	2017	2016
Income tax at the U.S. federal statutory tax rate	**$ 797.1**	$ 769.1	$ 1,180.9
Add (deduct):			
International operations, including Puerto Rico	**(629.7)**	(428.9)	(313.7)
General business credits	**(87.4)**	(66.8)	(58.3)
Non-deductible acquired IPR&D[1]	**309.9**	300.1	—
2017 Tax Act	**175.3**	1,914.0	—
Other	**(1.5)**	(86.0)	(172.5)
Income taxes	**$ 563.7**	$ 2,401.5	$ 636.4

[1] Non-deductible acquired IPR&D was related to ARMO in 2018 and CoLucid in 2017. See Note 3 for additional information related to acquisitions.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows:

	2018	2017	2016
Beginning balance at January 1	**$ 1,014.5**	$ 853.4	$ 1,066.6
Additions based on tax positions related to the current year	**798.2**	133.8	73.4
Additions for tax positions of prior years	**414.9**	97.5	14.8
Reductions for tax positions of prior years	**(117.1)**	(59.3)	(15.2)
Settlements	**(33.2)**	(2.4)	(171.9)
Lapses of statutes of limitation	**(23.5)**	(19.3)	(110.0)
Changes related to the impact of foreign currency translation	**(6.8)**	10.8	(4.3)
Ending balance at December 31	**$ 2,047.0**	$ 1,014.5	$ 853.4

The total amount of unrecognized tax benefits that, if recognized, would affect our effective tax rate was $1.49 billion and $670.9 million at December 31, 2018 and 2017, respectively.

We file income tax returns in the U.S. federal jurisdiction and various state, local, and non-U.S. jurisdictions. We are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations in most major taxing jurisdictions for years before 2010.

The U.S. examination of tax years 2010-2012 commenced during the fourth quarter of 2013. In December 2015, we executed a closing agreement with the Internal Revenue Service which effectively settled certain matters for tax years 2010-2012. Accordingly, we reduced our gross uncertain tax positions by approximately $320 million in 2015. During 2016, we effectively settled the remaining matters related to tax years 2010-2012. As a result of this resolution, our gross uncertain tax positions were further reduced by approximately $140 million, and our consolidated results of operations benefited from an immaterial reduction in income tax expense. During 2016, we made cash payments of approximately $150 million related to tax years 2010-2012 after application of available tax credit carryforwards and carrybacks. The U.S. examination of tax years 2013-2015 began in 2016, and we believe it is reasonably possible that this examination could reach resolution within the next 12 months for tax years 2013-2014 and certain matters under examination for tax year 2015, for which the audit remains ongoing. As a result, we currently estimate that gross uncertain tax positions may be reduced by approximately $450 million within the next 12 months. Additionally, we anticipate up to $150 million of cash payments will be due upon resolution.

We recognize both accrued interest and penalties related to unrecognized tax benefits in income tax expense. We recognized income tax (benefit) expense related to interest and penalties as follows:

	2018	2017	2016
Income tax (benefit) expense	**$ 24.4**	$ 27.4	$ (52.5)

At December 31, 2018 and 2017, our accruals for the payment of interest and penalties totaled $197.2 million and $170.7 million, respectively.

Note 14: Retirement Benefits

We use a measurement date of December 31 to develop the change in benefit obligation, change in plan assets, funded status, and amounts recognized in the consolidated balance sheets at December 31 for our defined benefit pension and retiree health benefit plans, which were as follows:

	Defined Benefit Pension Plans		Retiree Health Benefit Plans	
	2018	2017	2018	2017
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 15,098.4**	$ 12,455.9	**$ 1,728.5**	$ 1,494.6
Service cost	**304.0**	331.3	**41.5**	46.4
Interest cost	**461.0**	413.4	**57.3**	52.9
Actuarial (gain) loss	**(1,431.2)**	1,580.5	**(182.8)**	40.0
Benefits paid	**(582.1)**	(486.3)	**(82.8)**	(60.1)
Plan amendments	**17.6**	—	**(14.1)**	—
Curtailment (gain) loss	**(43.9)**	90.4	**2.5**	105.2
Special termination benefit	**—**	317.2	**—**	37.5
Foreign currency exchange rate changes and other adjustments	**(161.9)**	396.0	**(6.2)**	12.0
Benefit obligation at end of year	**13,661.9**	15,098.4	**1,543.9**	1,728.5
Change in plan assets:				
Fair value of plan assets at beginning of year	**11,844.5**	10,179.7	**2,372.4**	1,961.2
Actual return on plan assets	**(370.3)**	1,447.6	**32.6**	462.0
Employer contribution	**324.7**	414.3	**75.9**	9.1
Benefits paid	**(582.1)**	(486.3)	**(82.8)**	(60.1)
Foreign currency exchange rate changes and other adjustments	**(152.6)**	289.2	**—**	0.2
Fair value of plan assets at end of year	**11,064.2**	11,844.5	**2,398.1**	2,372.4
Funded status	**(2,597.7)**	(3,253.9)	**854.2**	643.9
Unrecognized net actuarial loss	**5,011.8**	5,645.5	**140.6**	182.0
Unrecognized prior service (benefit) cost	**25.8**	15.2	**(299.9)**	(395.0)
Net amount recognized	**$ 2,439.9**	$ 2,406.8	**$ 694.9**	$ 430.9
Amounts recognized in the consolidated balance sheet consisted of:				
Sundry	**$ 196.0**	$ 106.8	**$ 1,043.6**	$ 869.0
Other current liabilities	**(64.5)**	(64.8)	**(7.3)**	(7.1)
Accrued retirement benefits	**(2,729.2)**	(3,295.9)	**(182.1)**	(218.0)
Accumulated other comprehensive (income) loss before income taxes	**5,037.6**	5,660.7	**(159.3)**	(213.0)
Net amount recognized	**$ 2,439.9**	$ 2,406.8	**$ 694.9**	$ 430.9

The unrecognized net actuarial loss and unrecognized prior service cost (benefit) have not yet been recognized in net periodic pension costs and are included in accumulated other comprehensive loss at December 31, 2018.

In July 2018, we announced that we would amend our defined benefit pension and retiree health benefit plans to freeze or reduce benefits for certain Elanco employees effective January 1, 2019. We remeasured the impacted pension and retiree health plans' benefit obligations as of July 31, 2018, which resulted in a net curtailment gain of $28.0 million, which was recorded in asset impairment, restructuring, and other special charges. Market variables associated with this remeasurement, specifically an increase in the discount rate, were the primary driver for the $1.62 billion decrease in the benefit obligations in 2018.

The workforce reduction plan initiated in 2017 included a curtailment loss of $159.0 million and a special termination benefit of $354.7 million, which was recorded in asset impairment, restructuring, and other special charges, as a result of a remeasurement as of October 31, 2017. The special termination benefits related to early retirement incentives offered as part of a voluntary early retirement program for the U.S. plan in the fourth quarter of 2017. This program allowed certain employees the opportunity to voluntarily leave the Company. Market variables associated with this remeasurement, specifically a decrease in the discount rate, were the primary driver for the $2.88 billion increase in the benefit obligations in 2017.

The following represents our weighted-average assumptions as of December 31:

	Defined Benefit Pension Plans			Retiree Health Benefit Plans		
(Percents)	2018	2017	2016	2018	2017	2016
Discount rate for benefit obligation	**3.9%**	3.4%	3.9%	**4.4%**	3.7%	4.3%
Discount rate for net benefit costs	**3.4**	3.9	4.3	**3.7**	4.3	4.5
Rate of compensation increase for benefit obligation	**3.4**	3.4	3.4			
Rate of compensation increase for net benefit costs	**3.4**	3.4	3.4			
Expected return on plan assets for net benefit costs	**7.3**	7.4	7.4	**8.0**	8.0	8.0

We annually evaluate the expected return on plan assets in our defined benefit pension and retiree health benefit plans. In evaluating the expected rate of return, we consider many factors, with a primary analysis of current and projected market conditions; asset returns and asset allocations; and the views of leading financial advisers and economists. We may also review our historical assumptions compared with actual results, as well as the assumptions and trend rates utilized by similar plans, where applicable.

Given the design of our retiree health benefit plans, healthcare-cost trend rates do not have a material impact on our financial condition or results of operations.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows:

	2019	2020	2021	2022	2023	2024-2028
Defined benefit pension plans	$ 609.9	$ 613.6	$ 623.6	$ 638.2	$ 647.9	$ 3,560.6
Retiree health benefit plans	98.0	99.1	100.7	99.9	98.5	505.3

Amounts relating to defined benefit pension plans with projected benefit obligations in excess of plan assets were as follows at December 31:

	2018	2017
Projected benefit obligation	**$ 11,813.4**	$ 13,025.0
Fair value of plan assets	**9,019.7**	9,664.3

Amounts relating to defined benefit pension plans and retiree health benefit plans with accumulated benefit obligations in excess of plan assets were as follows at December 31:

	Defined Benefit Pension Plans		Retiree Health Benefit Plans	
	2018	2017	2018	2017
Accumulated benefit obligation	**$ 11,032.1**	$ 11,956.7	**$ 189.4**	$ 225.1
Fair value of plan assets	**9,019.7**	9,639.4	**—**	—

The total accumulated benefit obligation for our defined benefit pension plans was $12.76 billion and $13.90 billion at December 31, 2018 and 2017, respectively.

Net pension and retiree health benefit expense included the following components:

	Defined Benefit Pension Plans			Retiree Health Benefit Plans		
	2018	2017	2016	2018	2017	2016
Components of net periodic (benefit) cost:						
Service cost	**$ 304.0**	$ 331.3	$ 277.7	**$ 41.5**	$ 46.4	$ 39.1
Interest cost	**461.0**	413.4	420.8	**57.3**	52.9	53.2
Expected return on plan assets	**(848.3)**	(776.0)	(752.1)	**(177.9)**	(160.7)	(150.2)
Amortization of prior service (benefit) cost	**4.8**	5.7	11.8	**(79.5)**	(90.0)	(85.8)
Recognized actuarial loss	**334.4**	288.2	285.6	**6.1**	18.4	19.1
Curtailment (gain) loss	**1.3**	93.5	—	**(29.3)**	65.5	—
Special termination benefit	**—**	317.2	—	**—**	37.5	—
Net periodic (benefit) cost	**$ 257.2**	$ 673.3	$ 243.8	**$ (181.8)**	$ (30.0)	$ (124.6)

The following represents the amounts recognized in other comprehensive income (loss) for the years ended December 31, 2018, 2017, and 2016:

	Defined Benefit Pension Plans			Retiree Health Benefit Plans		
	2018	2017	2016	2018	2017	2016
Actuarial gain (loss) arising during period	**$ 211.1**	$ (915.1)	$ (725.2)	**$ 37.5**	$ 261.3	$ (132.2)
Plan amendments during period	**(17.6)**	—	—	**14.1**	—	35.8
Curtailment gain (loss)	**45.2**	3.2	—	**(31.8)**	(39.7)	—
Amortization of prior service (benefit) cost included in net income	**4.8**	5.7	11.8	**(79.5)**	(90.0)	(85.8)
Amortization of net actuarial loss included in net income	**334.4**	288.2	285.6	**6.1**	18.4	19.1
Foreign currency exchange rate changes and other	**45.2**	(105.3)	75.6	**(0.1)**	(3.3)	2.5
Total other comprehensive income (loss) during period	**$ 623.1**	$ (723.3)	$ (352.2)	**$ (53.7)**	$ 146.7	$ (160.6)

We have defined contribution savings plans that cover our eligible employees worldwide. The purpose of these plans is generally to provide additional financial security during retirement by providing employees with an incentive to save. Our contributions to the plans are based on employee contributions and the level of our match. Expenses under the plans totaled $153.5 million, $169.1 million, and $175.0 million for the years ended December 31, 2018, 2017, and 2016, respectively.

We provide certain other postemployment benefits primarily related to disability benefits and accrue for the related cost over the service lives of employees. Expenses associated with these benefit plans for the years ended December 31, 2018, 2017, and 2016 were not material.

Benefit Plan Investments

Our benefit plan investment policies are set with specific consideration of return and risk requirements in relationship to the respective liabilities. U.S. and Puerto Rico plans represent approximately 80 percent of our global investments. Given the long-term nature of our liabilities, these plans have the flexibility to manage an above-average degree of risk in the asset portfolios. At the investment-policy level, there are no specifically prohibited investments. However, within individual investment manager mandates, restrictions and limitations are contractually set to align with our investment objectives, ensure risk control, and limit concentrations.

We manage our portfolio to minimize concentration of risk by allocating funds within asset categories. In addition, within a category we use different managers with various management objectives to eliminate any significant concentration of risk.

Our global benefit plans may enter into contractual arrangements (derivatives) to implement the local investment policy or manage particular portfolio risks. Derivatives are principally used to increase or decrease exposure to a particular public equity, fixed income, commodity, or currency market more rapidly or less expensively than could be accomplished through the use of the cash markets. The plans utilize both exchange-traded and over-the-counter instruments. The maximum exposure to either a market or counterparty credit loss is limited to the carrying value

of the receivable, and is managed within contractual limits. We expect all of our counterparties to meet their obligations. The gross values of these derivative receivables and payables are not material to the global asset portfolio, and their values are reflected within the tables below.

The defined benefit pension and retiree health benefit plan allocation for the U.S. and Puerto Rico currently comprises approximately 70 percent growth investments and 30 percent fixed-income investments. The growth investment allocation encompasses U.S. and international public equity securities, hedge funds, private equity-like investments, and real estate. These portfolio allocations are intended to reduce overall risk by providing diversification, while seeking moderate to high returns over the long term.

Public equity securities are well diversified and invested in U.S. and international small-to-large companies across various asset managers and styles. The remaining portion of the growth portfolio is invested in private alternative investments.

Fixed-income investments primarily consist of fixed-income securities in U.S. treasuries and agencies, emerging market debt obligations, corporate bonds, mortgage-backed securities, commercial mortgage-backed obligations, and any related repurchase agreements.

Hedge funds are privately owned institutional investment funds that generally have moderate liquidity. Hedge funds seek specified levels of absolute return regardless of overall market conditions, and generally have low correlations to public equity and debt markets. Hedge funds often invest substantially in financial market instruments (stocks, bonds, commodities, currencies, derivatives, etc.) using a very broad range of trading activities to manage portfolio risks. Hedge fund strategies focus primarily on security selection and seek to be neutral with respect to market moves. Common groupings of hedge fund strategies include relative value, tactical, and event driven. Relative value strategies include arbitrage, when the same asset can simultaneously be bought and sold at different prices, achieving an immediate profit. Tactical strategies often take long and short positions to reduce or eliminate overall market risks while seeking a particular investment opportunity. Event strategy opportunities can evolve from specific company announcements such as mergers and acquisitions, and typically have little correlation to overall market directional movements. Our hedge fund investments are made through limited partnership interests primarily in fund-of-funds structures to ensure diversification across many strategies and many individual managers. Plan holdings in hedge funds are valued based on net asset values (NAVs) calculated by each fund or general partner, as applicable, and we have the ability to redeem these investments at NAV.

Private equity-like investment funds typically have low liquidity and are made through long-term partnerships or joint ventures that invest in pools of capital invested in primarily non-publicly traded entities. Underlying investments include venture capital (early stage investing), buyout, and special situation investing. Private equity management firms typically acquire and then reorganize private companies to create increased long term value. Private equity-like funds usually have a limited life of approximately 10-15 years, and require a minimum investment commitment from their limited partners. Our private investments are made both directly into funds and through fund-of-funds structures to ensure broad diversification of management styles and assets across the portfolio. Plan holdings in private equity-like investments are valued using the value reported by the partnership, adjusted for known cash flows and significant events through our reporting date. Values provided by the partnerships are primarily based on analysis of and judgments about the underlying investments. Inputs to these valuations include underlying NAVs, discounted cash flow valuations, comparable market valuations, and may also include adjustments for currency, credit, liquidity and other risks as applicable. The vast majority of these private partnerships provide us with annual audited financial statements including their compliance with fair valuation procedures consistent with applicable accounting standards.

Real estate is composed of both public and private holdings. Real estate investments in registered investment companies that trade on an exchange are classified as Level 1 on the fair value hierarchy. Real estate investments in funds measured at fair value on the basis of NAV provided by the fund manager are classified as such. These NAVs are developed with inputs including discounted cash flow, independent appraisal, and market comparable analyses.

Other assets include cash and cash equivalents and mark-to-market value of derivatives.

The cash value of the trust-owned insurance contract is primarily invested in investment-grade publicly traded equity and fixed-income securities.

Other than hedge funds, private equity-like investments, and real estate, which are discussed above, we determine fair values based on a market approach using quoted market values, significant other observable inputs for identical or comparable assets or liabilities, or discounted cash flow analyses.

The fair values of our defined benefit pension plan and retiree health plan assets as of December 31, 2018 by asset category were as follows:

		Fair Value Measurements Using			
Asset Class	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Valued at Net Asset Value[1]
Defined Benefit Pension Plans					
Public equity securities:					
U.S.	$ 619.9	$ 410.1	$ —	$ —	$ 209.8
International	2,117.8	828.8	—	1.8	1,287.2
Fixed income:					
Developed markets	2,963.2	25.0	2,173.3	—	764.9
Developed markets - repurchase agreements	(1,225.5)	—	(1,225.5)	—	—
Emerging markets	571.6	4.1	256.2	6.1	305.2
Private alternative investments:					
Hedge funds	2,801.9	—	—	—	2,801.9
Equity-like funds	1,942.5	—	—	16.8	1,925.7
Real estate	525.8	147.2	—	—	378.6
Other	747.0	213.3	86.1	—	447.6
Total	$ 11,064.2	$ 1,628.5	$ 1,290.1	$ 24.7	$ 8,120.9
Retiree Health Benefit Plans					
Public equity securities:					
U.S.	$ 59.9	$ 41.0	$ —	$ —	$ 18.9
International	127.0	50.5	—	0.2	76.3
Fixed income:					
Developed markets	69.1	—	61.5	—	7.6
Emerging markets	53.5	—	25.5	0.6	27.4
Private alternative investments:					
Hedge funds	245.8	—	—	—	245.8
Equity-like funds	169.2	—	—	1.7	167.5
Cash value of trust owned insurance contract	1,574.7	—	1,574.7	—	—
Real estate	27.7	14.7	—	—	13.0
Other	71.2	38.1	(3.8)	—	36.9
Total	$ 2,398.1	$ 144.3	$ 1,657.9	$ 2.5	$ 593.4

[1] Certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy.

No material transfers between Level 1, Level 2, or Level 3 occurred during the year ended December 31, 2018. The activity in the Level 3 investments during the year ended December 31, 2018 was not material.

The fair values of our defined benefit pension plan and retiree health plan assets as of December 31, 2017 by asset category were as follows:

		Fair Value Measurements Using			
Asset Class	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Valued at Net Asset Value[1]
Defined Benefit Pension Plans					
Public equity securities:					
U.S.	$ 466.2	$ 199.6	$ —	$ —	$ 266.6
International	2,934.2	955.1	—	—	1,979.1
Fixed income:					
Developed markets	3,182.9	28.7	2,468.2	—	686.0
Developed markets - repurchase agreements	(1,372.9)	—	(1,372.9)	—	—
Emerging markets	584.7	4.2	252.0	3.1	325.4
Private alternative investments:					
Hedge funds	2,984.6	—	—	—	2,984.6
Equity-like funds	1,639.6	—	—	16.8	1,622.8
Real estate	563.9	338.6	—	—	225.3
Other	861.3	119.2	602.8	2.2	137.1
Total	$ 11,844.5	$ 1,645.4	$ 1,950.1	$ 22.1	$ 8,226.9
Retiree Health Benefit Plans					
Public equity securities:					
U.S.	$ 43.0	$ 19.4	$ —	$ —	$ 23.6
International	182.5	61.3	—	—	121.2
Fixed income:					
Developed markets	71.2	—	63.5	—	7.7
Emerging markets	53.1	—	24.4	0.3	28.4
Private alternative investments:					
Hedge funds	256.0	—	—	—	256.0
Equity-like funds	137.0	—	—	1.6	135.4
Cash value of trust owned insurance contract	1,524.6	—	1,524.6	—	—
Real estate	33.0	33.0	—	—	—
Other	72.0	15.0	50.5	0.2	6.3
Total	$ 2,372.4	$ 128.7	$ 1,663.0	$ 2.1	$ 578.6

[1] Certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy.

No material transfers between Level 1, Level 2, or Level 3 occurred during the year ended December 31, 2017. The activity in the Level 3 investments during the year ended December 31, 2017 was not material.

In 2019, we expect to contribute approximately $45 million to our defined benefit pension plans to satisfy minimum funding requirements for the year. Additional discretionary contributions are not expected to be significant.

Note 15: Contingencies

We are a party to various legal actions and government investigations. The most significant of these are described below. It is not possible to determine the outcome of these matters, and we cannot reasonably estimate the maximum potential exposure or the range of possible loss in excess of amounts accrued for any of these matters; however, we believe that, except as noted below with respect to the Alimta® patent litigation and administrative proceedings, the resolution of all such matters will not have a material adverse effect on our consolidated financial position or liquidity, but could possibly be material to our consolidated results of operations in any one accounting period.

Litigation accruals, environmental liabilities, and the related estimated insurance recoverables are reflected on a gross basis as liabilities and assets, respectively, on our consolidated balance sheets. With respect to the product liability claims currently asserted against us, we have accrued for our estimated exposures to the extent they are both probable and reasonably estimable based on the information available to us. We accrue for certain product liability claims incurred but not filed to the extent we can formulate a reasonable estimate of their costs. We estimate these expenses based primarily on historical claims experience and data regarding product usage. Legal defense costs expected to be incurred in connection with significant product liability loss contingencies are accrued when both probable and reasonably estimable.

Alimta Patent Litigation and Administrative Proceedings

A number of generic manufacturers are seeking approvals in the U.S., Japan, and a number of countries in Europe to market generic forms of Alimta prior to the expiration of our vitamin regimen patents, alleging that those patents are invalid, not infringed, or both. We believe our Alimta vitamin regimen patents are valid and enforceable against these generic manufacturers. However, it is not possible to determine the ultimate outcome of the proceedings, and accordingly, we can provide no assurance that we will prevail. An unfavorable outcome could have a material adverse impact on our future consolidated results of operations, liquidity, and financial position. We expect that a loss of exclusivity for Alimta in one or more of the below jurisdictions would result in a rapid and severe decline in future revenue for the product in the relevant market.

U.S. Patent Litigation and Administrative Proceedings

In the U.S., more than 10 Abbreviated New Drug Applications (ANDAs) seeking approval to market generic versions of Alimta prior to the expiration of our vitamin regimen patent (expiring in 2021 plus pediatric exclusivity expiring in 2022) have been filed by a number of companies, including Teva Parenteral Medicines, Inc. (Teva) and APP Pharmaceuticals, LLC (APP) pursuant to procedures set out in the Drug Price Competition and Patent Term Restoration Act of 1984 (the Hatch-Waxman Act). We have received favorable decisions from the U.S. Court of Appeals for the Federal Circuit (affirming the U.S. District Court for the Southern District of Indiana's decisions finding our U.S. vitamin regimen patent valid and infringed) against Teva, APP, and two other defendants' proposed products, and similar favorable judgments have been entered by the U.S. District Court for the Southern District of Indiana against five other companies. The remaining ANDA applicants have agreed to a preliminary injunction or stay pending the appeal of the inter partes review (IPR) described in the following sentence. In October 2017, the U.S. Patent and Trademark Office issued written decisions in our favor following IPR of our vitamin regimen patent, finding that the generic company petitioners failed to show that the claims in our patent are unpatentable. A number of these challengers have appealed. A hearing on the appeal was held in the first quarter of 2019, and we expect a decision in the second quarter of 2019.

We also currently have pending lawsuits in the U.S. District Court for the Southern District of Indiana alleging infringement against Actavis LLC (Actavis) and Apotex Inc. in response to their applications to market alternative forms of pemetrexed (the active ingredient in Alimta) products, and we filed a similar lawsuit in the U.S. District Court for the District of Delaware against Eagle Pharmaceuticals, Inc. In June 2018, the U.S. District Court for the Southern District of Indiana ruled in our favor in two similar cases, finding Dr. Reddy's Laboratories' (Dr. Reddy) and Hospira, Inc.'s (Hospira) proposed products would infringe our patent. Dr. Reddy and Hospira have appealed those rulings. The lawsuit against Actavis has been stayed, pending a decision in Dr. Reddy's appeal.

European Patent Litigation and Administrative Proceedings

In July 2017, the United Kingdom (U.K.) Supreme Court ruled that commercialization of certain salt forms of pemetrexed by Actavis Group ehf and other Actavis companies directly infringes our vitamin regimen patents in the U.K., Italy, France, and Spain. This litigation in the U.K. is now concluded.

Hexal AG, Stada Arzneimittel AG (Stada), and Fresenius Kabi Deutschland GmbH have each challenged the validity of our vitamin regimen patent before the German Federal Patent Court. At a hearing in July 2018, the German Federal Patent Court held that our vitamin regimen patent is invalid. We have appealed this decision. Under German law, the patent remains in force pending appeal. A number of generic competitors have received approval to market generic versions of pemetrexed in Germany. Injunctions are in place against four of these companies, but in two cases the injunctions have been temporarily suspended pending the validity appeal at the German Supreme Court. Stada has recently launched at risk in Germany and we are seeking an injunction. We are pursuing injunctions against others who have launched or are preparing to launch at risk. Whether the existing injunctions remain in effect, the suspended injunctions are reinstated pending the appeal or further injunctions are granted, or whether

additional generic competitors choose to launch at risk, makes the timing of further generic entry and market erosion in Germany unpredictable.

Additional legal proceedings are ongoing in various national courts throughout Europe. We are aware that several companies have received approval to market generic versions of pemetrexed in major European markets and that additional generic competitors may choose to launch at risk (including one generic product currently on the market in France). We will continue to seek to remove any generic pemetrexed products launched at risk in European markets, including Germany, seek damages in respect of such launches, and defend our patents against validity challenges.

Japanese Administrative Proceedings

Three separate sets of demands for invalidation of our two vitamin regimen patents, involving several companies, have been filed with the Japanese Patent Office (JPO). The JPO rejected a demand for invalidation by Sawai Pharmaceutical Co., Ltd., which was affirmed on appeal in 2017. In July 2018, the JPO issued written decisions dismissing demands brought by Nipro Corporation (Nipro) for invalidation of our two Japanese vitamin regimen patents. Nipro filed an appeal, and we anticipate decisions by the Japan Intellectual Property High Court in the third quarter of 2019. We anticipate decisions by the JPO with respect to another set of demands, brought by Hospira, in the third quarter of 2019. If upheld through all challenges, these patents would provide intellectual property protection for Alimta until June 2021. Notwithstanding our patents, generic versions of Alimta received regulatory approval in Japan starting in February 2016. We do not currently anticipate that generic versions of Alimta will proceed to pricing approval.

Cymbalta® Product Liability Litigation

We were named as a defendant in a purported class-action lawsuit in the U.S. District Court for the Central District of California (now called *Strafford et al. v. Eli Lilly and Com*pany) involving Cymbalta. The plaintiffs, purporting to represent a class of all persons within the U.S. who purchased and/or paid for Cymbalta, asserted claims under the consumer protection statutes of four states, California, Massachusetts, Missouri, and New York, and sought declaratory, injunctive, and monetary relief for various alleged economic injuries arising from discontinuing treatment with Cymbalta. The district court denied the plaintiffs' motions for class certification. The district court dismissed the suits and plaintiffs appealed to the U.S. Court of Appeals for the Ninth Circuit. In November 2017, the U.S. Court of Appeals for the Ninth Circuit dismissed the suit. In July 2018, the U.S. District Court for the District of California denied plaintiffs' motion to reopen the case. Plaintiffs' appeal of this denial is currently pending before the U.S. Court of Appeals for the Ninth Circuit.

Brazil–Employee Litigation

Our subsidiary in Brazil, Eli Lilly do Brasil Limitada (Lilly Brasil), is named in a lawsuit brought by the Labor Attorney for the 15th Region in the Labor Court of Paulinia, State of Sao Paulo, Brazil, alleging possible harm to employees and former employees caused by exposure to heavy metals at a former Lilly Brasil manufacturing facility in Cosmopolis, Brazil, operated by the company between 1977 and 2003. In May 2014, the labor court judge ruled against Lilly Brasil, ordering it to undertake several actions of unspecified financial impact, including paying lifetime medical insurance for the employees and contractors who worked at the Cosmopolis facility more than six months during the affected years and their children born during and after this period. We appealed this decision. In July 2018, the appeals court affirmed the labor court's ruling with the total financial impact of the ruling estimated to be approximately 500.0 million Brazilian real (approximately $130.0 million as of December 31, 2018). The appeals court restricted the broad health coverage awarded by the labor court to health problems that claimants could show arose from exposure to the alleged contamination. We strongly disagree with the appeals court's decision. Lilly Brasil has taken an initial step in the appeal process by filing a Motion for Clarification; a decision on that motion is expected in the first quarter of 2019.

We are also named in approximately 30 lawsuits filed in the same labor court by individual former employees making similar claims. These lawsuits are each at various stages in the litigation process, with judgments being handed down in approximately half of the lawsuits, nearly all of which are on appeal in the labor courts.

Lilly Brasil and Elanco Quimica Ltda. have also been named in two similar lawsuits in the same labor court involving approximately 410 individual plaintiffs. The plaintiffs' claims in these lawsuits relate only to mental anguish attributable to the possibility of illness due to alleged exposure to heavy metals or other contaminants. In 2017, the labor court dismissed the claims brought by all but the first named plaintiff in each of the lawsuits. The plaintiffs in both lawsuits are appealing.

We believe all of these lawsuits are without merit and are defending against them vigorously.

Adocia, S.A.

We have been named as a respondent in an arbitration filed by Adocia, S.A. (Adocia), with which we entered into agreements for the co-development of an ultra-rapid insulin product. Adocia alleges that we misappropriated and misused Adocia's confidential information and intellectual property and is seeking approximately $1.30 billion in damages and other specific relief. We have asserted several counterclaims relating to fraudulent misrepresentation and are seeking approximately $188.0 million in damages. An arbitration hearing was held on Adocia's claims and our counterclaims in December 2018, and we expect a decision in the third quarter of 2019. We believe Adocia's claims are without merit and have defended against them vigorously.

Throughout the arbitrations described above, Adocia has made statements alleging that Adocia employees should be listed as inventors on two of our patents related to our ultra-rapid insulin product currently in development. We strongly contest this allegation. While inventorship of these two patents is not at issue in the arbitrations, in October 2018 we filed a declaratory judgment action against Adocia in the U.S. District Court for the Southern District of Indiana to confirm our inventorship.

Insulin and Glucagon Pricing Litigation and Proceedings

We, along with Sanofi and Novo Nordisk, are named as defendants in a consolidated purported class action lawsuit, *In re. Insulin Pricing Litigation*, in the U.S. District Court of New Jersey relating to insulin pricing. Plaintiffs seek damages under various state consumer protection laws and the Federal Racketeer Influenced and Corrupt Organization Act (Federal RICO Act). In February 2019, the court dismissed without prejudice the federal RICO Act claim as well as certain state consumer protection claims. Separately, we, along with Sanofi and Novo Nordisk, are named as defendants in a purported class action lawsuit, *MSP Recovery Claims, Series, LLC et al. v. Sanofi Aventis U.S. LLC et al.*, in the same court, seeking damages under various state consumer protection laws, common law fraud, unjust enrichment, and the federal RICO Act. Finally, the Minnesota Attorney General's Office filed a complaint against us, Sanofi, and Novo Nordisk, *State of Minnesota v. Sanofi-Aventis U.S. LLC et al.,* in the U.S. District Court of New Jersey, alleging unjust enrichment, and violations of various Minnesota state consumer protection laws and the Federal RICO Act. We believe these claims are without merit and are defending against them vigorously.

We have received civil investigative demands from the Offices of the Attorney General from Washington and New Mexico relating to the pricing and sale of our insulin products. We are cooperating with these investigations. The Offices of the Attorney General in Mississippi, Washington D.C., California, Florida, Hawaii, and Nevada have requested information relating to the pricing and sale of our insulin products. We are cooperating with these requests. We received interrogatories from the California Attorney General's Office regarding our competition in the long-acting insulin market. We are cooperating with this investigation. Finally, we received a request from the House of Representatives' Committee on Oversight and Reform; two requests from its Committee on Energy and Commerce; as well as a request from the Senate Committee on Health, Education, Labor, and Pensions, seeking certain information related to the pricing of insulin products, among other issues. We are cooperating with these investigations.

We, along with Novo Nordisk and various pharmacy benefit managers, are named as defendants in a lawsuit seeking class action status in the U.S. District Court of New Jersey relating to glucagon pricing. The plaintiffs are seeking damages under various state consumer protection laws, the Federal RICO Act, the Sherman Act, and other state and federal laws. We believe this lawsuit is without merit and are defending against it vigorously.

Product Liability Insurance

Because of the nature of pharmaceutical products, it is possible that we could become subject to large numbers of additional product liability and related claims in the future. Due to a very restrictive market for product liability insurance, we are self-insured for product liability losses for all our currently marketed products.

Note 16: Other Comprehensive Income (Loss)

The following table summarizes the activity related to each component of other comprehensive income (loss):

(Amounts presented net of taxes)	Foreign Currency Translation Gains (Losses)	Unrealized Net Gains (Losses) on Securities	Defined Benefit Pension and Retiree Health Benefit Plans	Effective Portion of Cash Flow Hedges	Accumulated Other Comprehensive Loss
Beginning balance at January 1, 2016	$ (1,360.2)	$ 10.1	$ (3,012.1)	$ (218.5)	$ (4,580.7)
Other comprehensive income (loss) before reclassifications	(581.6)	206.7	(518.7)	(2.2)	(895.8)
Net amount reclassified from accumulated other comprehensive loss	74.5	7.2	159.2	9.8	250.7
Net other comprehensive income (loss)	(507.1)	213.9	(359.5)	7.6	(645.1)
Balance at December 31, 2016[1]	(1,867.3)	224.0	(3,371.6)	(210.9)	(5,225.8)
Other comprehensive income (loss) before reclassifications	664.6	(15.7)	(543.4)	8.5	114.0
Net amount reclassified from accumulated other comprehensive loss	8.1	(110.6)	153.4	9.6	60.5
Net other comprehensive income (loss)	672.7	(126.3)	(390.0)	18.1	174.5
Reclassifications of stranded tax effects (Note 2)	(38.8)	15.8	(579.1)	(41.5)	(643.6)
Balance at December 31, 2017[2]	(1,233.4)	113.5	(4,340.7)	(234.3)	(5,694.9)
Reclassification due to adoption of new accounting standard[3]	**—**	**(128.9)**	**—**	**—**	**(128.9)**
Other comprehensive income (loss) before reclassifications	**(389.1)**	**24.5**	**274.0**	**(16.3)**	**(106.9)**
Net amount reclassified from accumulated other comprehensive loss	**—**	**(31.2)**	**210.0**	**11.7**	**190.5**
Net other comprehensive income (loss)	**(389.1)**	**(6.7)**	**484.0**	**(4.6)**	**83.6**
Ending balance at December 31, 2018[4]	**$ (1,622.5)**	**$ (22.1)**	**$ (3,856.7)**	**$ (238.9)**	**$ (5,740.2)**

[1] Accumulated other comprehensive loss as of December 31, 2016 consists of $5.27 billion of accumulated other comprehensive loss attributable to controlling interest and $48.2 million of accumulated other comprehensive income attributable to noncontrolling interest.

[2] Accumulated other comprehensive loss as of December 31, 2017 consists of $5.72 billion of accumulated other comprehensive loss attributable to controlling interest and $23.7 million of accumulated other comprehensive income attributable to noncontrolling interest.

[3] This reclassification consists of $105.2 million of accumulated other comprehensive loss attributable to controlling interest and $23.7 million of accumulated other comprehensive loss attributable to noncontrolling interest. Refer to Note 2 for further details regarding the reclassification due to the adoption of Accounting Standards Update 2016-01, *Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities.*

[4] Accumulated other comprehensive loss as of December 31, 2018 consists of $5.73 billion of accumulated other comprehensive loss attributable to controlling interest and $11.0 million of accumulated other comprehensive loss attributable to noncontrolling interest.

The tax effects on the net activity related to each component of other comprehensive income (loss) for the years ended December 31, were as follows:

Tax benefit (expense)	2018	2017	2016
Foreign currency translation gains/losses	**$ 51.6**	$ 170.8	$ (70.6)
Unrealized net gains/losses on securities	**2.1**	55.0	(89.2)
Defined benefit pension and retiree health benefit plans	**(85.3)**	186.6	153.3
Effective portion of cash flow hedges	**1.3**	(9.7)	(4.1)
Benefit/(provision) for income taxes allocated to other comprehensive income (loss) items	**$ (30.3)**	$ 402.7	$ (10.6)

Except for the tax effects of foreign currency translation gains and losses related to our foreign currency-denominated notes, cross-currency interest rate swaps, and other foreign currency exchange contracts designated as net investment hedges (see Note 7), income taxes were not provided for foreign currency translation. Generally, the assets and liabilities of foreign operations are translated into U.S. dollars using the current exchange rate. For those operations, changes in exchange rates generally do not affect cash flows; therefore, resulting translation adjustments are made in shareholders' equity rather than in the consolidated statements of operations.

Reclassifications out of accumulated other comprehensive loss were as follows:

Details about Accumulated Other Comprehensive Loss Components	Year Ended December 31, 2018	2017	2016	Affected Line Item in the Consolidated Statements of Operations
Amortization of retirement benefit items:				
Prior service benefits, net	**$ (74.7)**	$ (84.3)	$ (74.0)	Other—net, (income) expense
Actuarial losses	**340.5**	306.6	304.7	Other—net, (income) expense
Total before tax	**265.8**	222.3	230.7	
Tax benefit	**(55.8)**	(68.9)	(71.5)	Income taxes
Net of tax	**210.0**	153.4	159.2	
Unrealized gains/losses on available-for-sale securities:				
Realized gains, net	**(39.5)**	(170.2)	(16.1)	Other—net, (income) expense
Impairment losses	**—**	—	27.3	Other—net, (income) expense
Total before tax	**(39.5)**	(170.2)	11.2	
Tax (benefit) expense	**8.3**	59.6	(4.0)	Income taxes
Net of tax	**(31.2)**	(110.6)	7.2	
Other, net of tax[1]	**11.7**	17.7	84.3	Other—net, (income) expense
Total reclassifications for the period, net of tax	**$ 190.5**	$ 60.5	$ 250.7	

[1] Amount for year ended December 31, 2016 included primarily $74.5 million of foreign currency translation losses.

Note 17: Other–Net, (Income) Expense

Other–net, (income) expense consisted of the following:

	2018	2017	2016
Interest expense	**$ 272.1**	$ 225.0	$ 185.2
Interest income	**(161.3)**	(167.3)	(108.7)
Venezuela charge	**—**	—	203.9
Retirement benefit	**(242.1)**	(248.1)	(197.6)
Other (income) expense	**56.5**	(110.1)	(195.6)
Other–net, (income) expense	**$ (74.8)**	$ (300.5)	$ (112.8)

Due to the financial crisis in Venezuela and the significant deterioration of the bolívar, we changed the exchange rate used to translate the assets and liabilities of our subsidiaries in Venezuela in 2016, which resulted in a charge of $203.9 million for the year ended December 31, 2016. Prior to this change, we used the Supplementary Foreign Currency Administration System (SICAD) rate; however, this official rate was discontinued in the first quarter of 2016. After considering several factors, including the future uncertainty of the Venezuelan economy, published exchange rates, and the limited amount of foreign currency exchanged, we changed to the Divisa Complementaria (DICOM) rate.

As discussed in Note 2, upon adoption of Accounting Standards Update 2017-07, *Compensation-Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,* pension and postretirement benefit cost components other than service costs are presented in other–net, (income) expense. Results for the years ended December 31, 2017 and 2016 have been reclassified to reflect the adoption of this standard.

For the year ended December 31, 2018, other expense was primarily driven by net foreign exchange losses. For the years ended December 31, 2017, and 2016, other income is primarily related to net gains on investments (Note 7).

Note 18: Segment Information

We have two operating segments—human pharmaceutical products and animal health products. Our operating segments are distinguished by the ultimate end user of the product—humans or animals. Performance is evaluated based on profit or loss from operations before income taxes. The accounting policies of the individual segments are the same as those described throughout the notes to the consolidated financial statements.

Our human pharmaceutical products segment includes the discovery, development, manufacturing, marketing, and sale of human pharmaceutical products worldwide in the following therapeutic areas: endocrinology, oncology, cardiovascular, neuroscience, immunology, and other. We lost our compound patent protection for Cialis® (tadalafil) and Adcirca® (tadalafil) in major European markets in November 2017, and in the U.S., pediatric exclusivity expired in May 2018. Pursuant to a settlement agreement related to our unit dose patent in the U.S., generic tadalafil entered the U.S. market in September 2018. Entry of generic competition into these markets following the loss of exclusivity will continue to cause a rapid and severe decline in revenue. Our formulation patents for Forteo® expired in December 2018 and use patents will expire in August 2019 in major European markets and the U.S. Both the formulation patent and the use patent expire in 2019 in Japan.

Our animal health segment, operating through our Elanco animal health division, includes the development, manufacturing, marketing, and sales of animal health products worldwide for both food and companion animals. Animal health products include Rumensin®, Maxiban®, Denagard®, Tylan®, and other products for livestock and poultry, as well as Trifexis®, Interceptor®, Comfortis®, and other products for companion animals. The animal health segment for the years ended December 31, 2018 and 2017, included the results of operations from BIVIVP, which was acquired on January 3, 2017 (Note 3).

Most of our pharmaceutical products are distributed through wholesalers that serve pharmacies, physicians and other health care professionals, and hospitals. For the years ended December 31, 2018, 2017, and 2016, our three largest wholesalers each accounted for between 11 percent and 18 percent of consolidated total revenue. Further, they each accounted for between 14 percent and 22 percent of accounts receivable as of December 31, 2018 and 2017. Animal health products are sold primarily to wholesale distributors.

Our chief operating decision maker does not review any asset information by operating segment and, accordingly, we do not report asset information by operating segment.

We are exposed to the risk of changes in social, political, and economic conditions inherent in foreign operations, and our results of operations and the value of our foreign assets are affected by fluctuations in foreign currency exchange rates.

The following table summarizes our revenue activity:

	U.S.[1]			Outside U.S.		
	2018	2017	2016	2018	2017	2016
Segment revenue—to unaffiliated customers:						
Human pharmaceutical products:						
Endocrinology:						
Trulicity®	**$ 2,515.8**	$ 1,609.8	$ 737.6	**$ 683.3**	$ 419.9	$ 187.9
Humalog®	**1,787.8**	1,717.8	1,685.2	**1,208.7**	1,147.4	1,083.6
Humulin®	**910.2**	884.6	861.8	**421.2**	450.7	504.1
Forteo	**757.9**	965.2	770.5	**817.7**	783.8	729.4
Basaglar	**622.8**	311.1	15.8	**178.5**	121.0	70.3
Jardiance	**400.2**	290.4	144.5	**258.1**	157.0	57.4
Trajenta	**224.2**	213.2	165.9	**350.5**	324.7	270.7
Other Endocrinology	**292.7**	380.9	450.6	**272.5**	307.7	347.5
Total Endocrinology	**7,511.6**	6,373.0	4,831.9	**4,190.5**	3,712.2	3,250.9
Oncology:						
Alimta	**1,131.0**	1,034.3	1,101.0	**1,001.9**	1,028.2	1,182.3
Erbitux	**531.6**	541.7	581.1	**103.8**	104.2	105.9
Cyramza®	**291.5**	278.8	270.1	**529.9**	479.6	344.0
Other Oncology	**449.1**	195.6	22.9	**221.7**	149.6	114.6
Total Oncology	**2,403.2**	2,050.4	1,975.1	**1,857.3**	1,761.6	1,746.8
Cardiovascular:						
Cialis	**1,129.2**	1,358.6	1,469.5	**722.7**	964.5	1,002.1
Effient	**68.1**	340.1	465.6	**54.1**	48.8	69.6
Other Cardiovascular	**158.4**	24.0	56.3	**121.8**	135.2	162.3
Total Cardiovascular	**1,355.7**	1,722.7	1,991.4	**898.6**	1,148.5	1,234.0
Neuroscience:						
Strattera®	**89.7**	284.9	534.9	**361.1**	333.3	319.8
Cymbalta[2]	**54.3**	114.9	269.3	**653.7**	642.2	661.2
Zyprexa®	**36.2**	75.5	69.8	**435.1**	505.7	655.5
Other Neuroscience	**97.2**	115.7	115.9	**93.4**	98.9	93.9
Total Neuroscience	**277.4**	591.0	989.9	**1,543.3**	1,580.1	1,730.4
Immunology:						
Taltz®	**738.7**	486.0	110.8	**198.7**	73.2	2.3
Other Immunology	**6.7**	—	—	**195.9**	45.8	—
Total Immunology	**745.4**	486.0	110.8	**394.6**	119.0	2.3
Other human pharmaceutical products	**58.7**	50.9	42.6	**176.6**	190.3	157.8
Total human pharmaceutical products	**12,352.2**	11,274.0	9,941.7	**9,061.0**	8,511.7	8,122.2
Animal health products	**1,523.0**	1,511.1	1,564.5	**1,619.5**	1,574.5	1,593.7
Revenue	**$ 13,875.2**	$ 12,785.1	$ 11,506.2	**$ 10,680.5**	$ 10,086.3	$ 9,715.9

Numbers may not add due to rounding.

[1] U.S. revenue includes revenue in Puerto Rico.

[2] Cymbalta revenues benefited from reductions to the reserve for expected product returns of approximately $175 million during the year ended December 31, 2016.

	2018	2017	2016
Segment profits:			
Human pharmaceutical products	**$ 6,217.8**	$ 5,139.7	$ 4,010.0
Animal health products	**607.3**	561.3	663.7
Total segment profits	**$ 6,825.1**	$ 5,701.0	$ 4,673.7
Reconciliation of total segment profits to consolidated income before taxes:			
Segment profits	**$ 6,825.1**	$ 5,701.0	$ 4,673.7
Other profits (losses):			
Amortization of intangible assets (Note 8)	**(546.0)**	(674.8)	(683.3)
Asset impairment, restructuring, and other special charges (Note 5)	**(482.0)**	(1,673.6)	(382.5)
Venezuela charge (Note 17)	**—**	—	(203.9)
Acquired in-process research and development (Note 3)	**(1,983.9)**	(1,112.6)	(30.0)
Inventory fair value adjustment related to acquisition of BIVIVP (Note 3)	**—**	(42.7)	—
Other, net	**(17.5)**	—	—
Consolidated income before taxes	**$ 3,795.7**	$ 2,197.4	$ 3,374.0

Numbers may not add due to rounding.

Depreciation and software amortization expense included in our segment profits was as follows:

	2018	2017	2016
Human pharmaceutical products	**$ 934.0**	$ 789.8	$ 723.4
Animal health products	**111.3**	102.7	89.9
Total depreciation expense and software amortization included in segment profits	**$ 1,045.3**	$ 892.5	$ 813.3

For internal management reporting presented to the chief operating decision maker, certain costs are fully allocated to our human pharmaceutical products segment and therefore are not reflected in the animal health segment's profit. Such items include costs associated with treasury-related financing and global administrative services.

	2018	2017	2016
Geographic Information			
Revenue—to unaffiliated customers[1]:			
United States	**$ 13,875.2**	$ 12,785.1	$ 11,506.2
Europe	**4,231.1**	3,943.2	3,768.1
Japan	**2,493.7**	2,419.7	2,330.9
Other foreign countries	**3,955.7**	3,723.3	3,616.9
Revenue	**$ 24,555.7**	$ 22,871.3	$ 21,222.1
Long-lived assets[2]:			
United States	**$ 4,946.6**	$ 5,013.4	$ 4,984.6
Europe	**2,708.1**	2,550.1	2,140.7
Japan	**181.9**	155.1	92.4
Other foreign countries	**1,695.5**	1,761.7	1,776.8
Long-lived assets	**$ 9,532.1**	$ 9,480.3	$ 8,994.5

Numbers may not add due to rounding.

[1] Revenue is attributed to the countries based on the location of the customer.

[2] Long-lived assets consist of property and equipment, net, and certain sundry assets.

Note 19: Selected Quarterly Data (unaudited)

2018	Fourth	Third	Second	First
Revenue	$ 6,438.6	$ 6,061.9	$ 6,355.2	$ 5,700.0
Cost of sales	1,593.7	1,562.3	1,702.7	1,571.3
Operating expenses[1]	3,315.3	2,959.9	2,986.8	2,676.9
Acquired in-process research and development[2]	329.4	30.0	1,624.5	—
Asset impairment, restructuring, and other special charges	246.0	83.3	74.4	78.3
Income before income taxes	938.9	1,411.0	4.8	1,441.0
Income taxes[3]	(186.2)	261.5	264.7	223.6
Net income (loss)	1,125.1	1,149.5	(259.9)	1,217.4
Earnings (loss) per share—basic	1.11	1.13	(0.25)	1.16
Earnings (loss) per share—diluted	1.10	1.12	(0.25)	1.16
Dividends paid per share	0.5625	0.5625	0.5625	0.5625

2017	Fourth	Third	Second	First
Revenue	$ 6,160.7	$ 5,658.0	$ 5,824.3	$ 5,228.3
Cost of sales[4]	1,644.9	1,586.3	1,571.7	1,347.9
Operating expenses[1][4]	3,290.4	2,918.5	3,002.5	2,826.0
Acquired in-process research and development[2]	50.0	205.0	—	857.6
Asset impairment, restructuring, and other special charges[5]	1,003.2	406.5	50.0	213.9
Income before income taxes	284.1	591.6	1,260.5	61.2
Income taxes[3]	1,941.0	36.0	252.5	172.0
Net income (loss)	(1,656.9)	555.6	1,008.0	(110.8)
Earnings (loss) per share—basic	(1.58)	0.53	0.96	(0.10)
Earnings (loss) per share—diluted	(1.58)	0.53	0.95	(0.10)
Dividends paid per share	0.52	0.52	0.52	0.52

[1] Includes research and development and marketing, selling, and administrative expenses.

[2] Acquired IPR&D charges in the second quarter of 2018 were primarily due to the ARMO acquisition. Acquired IPR&D charges in the first quarter of 2017 were due to the CoLucid acquisition. See Note 3 for further discussion.

[3] Income taxes in the fourth quarter of 2018 were a tax benefit primarily due to adjustments associated with U.S. tax reform. Income taxes in the fourth quarter of 2017 were due to the provisional charge resulting from the 2017 Tax Act. See Note 13 for further discussion.

[4] As discussed in Note 2, upon adoption of Accounting Standards Update 2017-07, *Compensation-Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,* pension and postretirement benefit cost components other than service costs are presented in other–net, (income) expense. Results for the quarters in 2017 have been reclassified to reflect the adoption of this standard.

[5] Asset impairment, restructuring, and other special charges in the third quarter 2017 were primarily from asset impairments related to lower projected revenue for Posilac (rbST). In the fourth quarter of 2017, restructuring charges were primarily due to severance costs resulting from the U.S. voluntary early retirement program. See Note 5 for further discussion.

Our common stock is listed under the ticker symbol LLY on the New York Stock Exchange (NYSE) and the NYSE Euronext.

Management's Reports

Management's Report for Financial Statements—Eli Lilly and Company and Subsidiaries

Management of Eli Lilly and Company and subsidiaries is responsible for the accuracy, integrity, and fair presentation of the financial statements. The statements have been prepared in accordance with generally accepted accounting principles in the United States and include amounts based on judgments and estimates by management. In management's opinion, the consolidated financial statements present fairly our financial position, results of operations, and cash flows.

In addition to the system of internal accounting controls, we maintain a code of conduct (known as "*The Red Book*") that applies to all employees worldwide, requiring proper overall business conduct, avoidance of conflicts of interest, compliance with laws, and confidentiality of proprietary information. All employees must take training annually on *The Red Book* and are required to report suspected violations. A hotline number is published in *The Red Book* to enable employees to report suspected violations anonymously. Employees who report suspected violations are protected from discrimination or retaliation by the company. In addition to *The Red Book*, the chief executive officer and all financial management must sign a financial code of ethics, which further reinforces their ethical and fiduciary responsibilities.

The consolidated financial statements have been audited by Ernst & Young LLP, an independent registered public accounting firm. Their responsibility is to examine our consolidated financial statements in accordance with generally accepted auditing standards of the Public Company Accounting Oversight Board (United States). Ernst & Young's opinion with respect to the fairness of the presentation of the statements is included in our annual report. Ernst & Young reports directly to the audit committee of the board of directors.

Our audit committee includes six nonemployee members of the board of directors, all of whom are independent from our company. The committee charter, which is available on our website, outlines the members' roles and responsibilities and is consistent with enacted corporate reform laws and regulations. It is the audit committee's responsibility to appoint an independent registered public accounting firm subject to shareholder ratification, approve both audit and non-audit services performed by the independent registered public accounting firm, and review the reports submitted by the firm. The audit committee meets several times during the year with management, the internal auditors, and the independent public accounting firm to discuss audit activities, internal controls, and financial reporting matters, including reviews of our externally published financial results. The internal auditors and the independent registered public accounting firm have full and free access to the committee.

We are dedicated to ensuring that we maintain the high standards of financial accounting and reporting that we have established. We are committed to providing financial information that is transparent, timely, complete, relevant, and accurate. Our culture demands integrity and an unyielding commitment to strong internal practices and policies. Finally, we have the highest confidence in our financial reporting, our underlying system of internal controls, and our people, who are objective in their responsibilities and operate under a code of conduct and the highest level of ethical standards.

Management's Report on Internal Control Over Financial Reporting—Eli Lilly and Company and Subsidiaries

Management of Eli Lilly and Company and subsidiaries is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. We have global financial policies that govern critical areas, including internal controls, financial accounting and reporting, fiduciary accountability, and safeguarding of corporate assets. Our internal accounting control systems are designed to provide reasonable assurance that assets are safeguarded, that transactions are executed in accordance with management's authorization and are properly recorded, and that accounting records are adequate for preparation of financial statements and other financial information. A staff of internal auditors regularly monitors, on a worldwide basis, the adequacy and effectiveness of internal accounting controls. The general auditor reports directly to the audit committee of the board of directors.

We conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in "2013 *Internal Control—Integrated Framework*" issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on our evaluation under this framework, we concluded that our internal control over financial reporting was effective as of December 31, 2018. However, because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The internal control over financial reporting has been assessed by Ernst & Young LLP as of December 31, 2018. Their responsibility is to evaluate whether internal control over financial reporting was designed and operating effectively.

David A. Ricks
Chairman, President and Chief Executive Officer

Joshua L. Smiley
Senior Vice President and Chief Financial Officer

February 19, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Eli Lilly and Company

Opinion on Internal Control Over Financial Reporting

We have audited Eli Lilly and Company and subsidiaries' internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Eli Lilly and Company and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and our report dated February 19, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

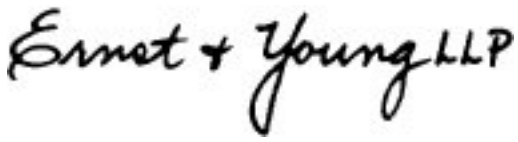
We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Indianapolis, Indiana

February 19, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Eli Lilly and Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Eli Lilly and Company and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 19, 2019 expressed an unqualified opinion thereon.

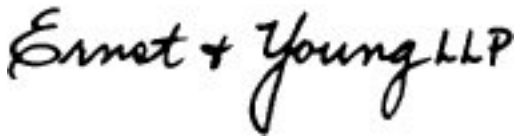
Adoption of Accounting Standards Update ("ASU") No. 2016-16

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for the recognition of income tax consequences of intra-entity transfers of assets other than inventory in 2018 due to the adoption of ASU No. 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory (Topic 740)*, using the modified retrospective adoption method.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.



We have served as the Company's auditor since 1940.

Indianapolis, Indiana

February 19, 2019

Selected Financial Data (unaudited)

ELI LILLY AND COMPANY AND SUBSIDIARIES (Dollars in millions, except revenue per employee and per-share data)	2018	2017	2016	2015	2014
Operations					
Revenue	**$ 24,555.7**	$ 22,871.3	$ 21,222.1	$ 19,958.7	$ 19,615.6
Cost of sales	**6,430.0**	6,150.8	5,710.1	5,054.5	4,959.2
Research and development	**5,307.1**	5,357.3	5,310.3	4,816.3	4,760.2
Marketing, selling, and administrative	**6,631.8**	6,680.1	6,528.0	6,548.3	6,643.4
Other[1]	**2,391.1**	2,485.7	299.7	749.6	252.5
Income before income taxes	**3,795.7**	2,197.4	3,374.0	2,790.0	3,000.3
Income taxes[2]	**563.7**	2,401.5	636.4	381.6	609.8
Net income (loss)	**3,232.0**	(204.1)	2,737.6	2,408.4	2,390.5
Net income (loss) as a percent of revenue	**13.2%**	(0.9)%	12.9%	12.1%	12.2%
Net income (loss) per share—diluted	**$ 3.13**	$ (0.19)	$ 2.58	$ 2.26	$ 2.23
Dividends declared per share	**2.33**	2.12	2.05	2.01	1.97
Weighted-average number of shares outstanding—diluted (thousands)	**1,033,667**	1,052,023	1,061,825	1,065,720	1,074,286
Financial Position					
Current assets	**$ 20,549.6**	$ 19,202.1	$ 15,101.4	$ 12,573.6	$ 11,928.3
Current liabilities	**11,888.1**	14,535.9	10,986.6	8,229.6	9,741.0
Property and equipment—net	**8,919.5**	8,826.5	8,252.6	8,053.5	7,963.9
Total assets	**43,908.4**	44,981.0	38,805.9	35,568.9	36,307.6
Long-term debt	**11,639.7**	9,940.5	8,367.8	7,972.4	5,332.8
Total equity	**10,909.1**	11,667.9	14,080.5	14,590.3	15,388.1
Supplementary Data					
Return on total equity	**25.7%**	(1.5)%	18.5%	16.1%	13.7%
Return on assets	**7.3%**	(0.5)%	7.5%	6.8%	6.8%
Capital expenditures	**$ 1,210.6**	$ 1,076.8	$ 1,037.0	$ 1,066.2	$ 1,162.6
Depreciation and amortization	**1,609.0**	1,567.3	1,496.6	1,427.7	1,379.0
Effective tax rate[2]	**14.9%**	109.3 %	18.9%	13.7%	20.3%
Revenue per employee	**$ 635,000**	$ 563,000	$ 506,000	$ 484,000	$ 501,000
Number of employees	**38,680**	40,655	41,975	41,275	39,135
Number of shareholders of record	**24,000**	25,300	26,800	28,000	29,300

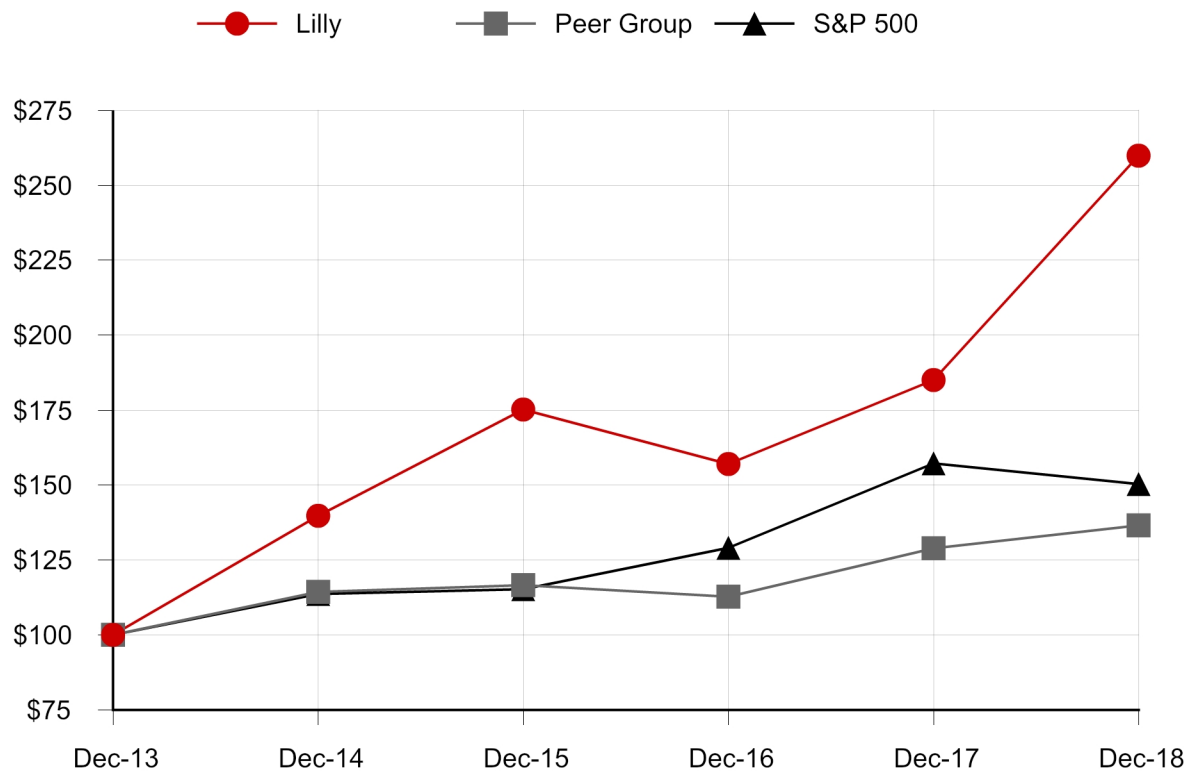
[1] Other includes acquired in-process research and development, asset impairment, restructuring, and other special charges, and other—net, (income) expense; See Note 3 to the consolidated financial statements for discussion regarding in-process research and development charges; See Note 5 to the consolidated financial statements for discussion regarding asset impairment, restructuring, and other special charges.

[2] See Note 13 to the consolidated financial statements for discussion regarding income taxes.

PERFORMANCE GRAPH

This graph compares the return on Lilly stock with that of the Standard & Poor's 500 Stock Index and our peer group for the years 2014 through 2018. The graph assumes that, on December 31, 2013, a person invested $100 each in Lilly stock, the S&P 500 Stock Index, and the peer groups' common stock. The graph measures total shareholder return, which takes into account both stock price and dividends. It assumes that dividends paid by a company are reinvested in that company's stock.

Value of $100 Invested on Last Business Day of 2013
Comparison of Five-Year Cumulative Total Return Among Lilly, S&P 500 Stock Index, Peer Group[1]



	Lilly	Peer Group	S&P 500
Dec-13	$ 100.00	$ 100.00	$ 100.00
Dec-14	$ 139.75	$ 114.39	$ 113.69
Dec-15	$ 175.21	$ 116.56	$ 115.26
Dec-16	$ 157.03	$ 112.80	$ 129.05
Dec-17	$ 185.04	$ 128.90	$ 157.22
Dec-18	$ 259.88	$ 136.56	$ 150.33

[1] We constructed the peer group as the industry index for this graph. It comprises the companies in the pharmaceutical and biotech industries that we used to benchmark the compensation of our executive officers for 2018: AbbVie Inc.; Amgen Inc.; AstraZeneca PLC; Baxter International Inc.; Biogen Idec Inc.; Bristol-Myers Squibb Company; Celgene Corporation; Gilead Sciences Inc.; GlaxoSmithKline plc; Johnson & Johnson; Medtronic plc; Merck & Co., Inc.; Novartis AG.; Pfizer Inc.; Roche Holdings AG; Sanofi; and Shire plc.

Trademarks Used In This Report

Trademarks or service marks owned by Eli Lilly and Company or its affiliates, when first used in this report, appear with an initial capital and are followed by the symbol ® or ™, as applicable. In subsequent uses of the marks in the report, the symbols may be omitted.

Actos® is a trademark of Takeda Pharmaceutical Company Limited.

Byetta® is a trademark of Amylin Pharmaceuticals, Inc.

Glyxambi®, Jardiance®, Jentadueto®, Synjardy® and Trajenta® are trademarks of Boehringer Ingelheim GmbH.

Viagra® is a trademark of Pfizer Inc.

Notice of 2019 Annual Meeting of Shareholders and Proxy Statement

YOUR VOTE IS IMPORTANT

Please vote online, by telephone, or by signing, dating, and returning the enclosed proxy card by mail.

Table of Contents

Notice of 2019 Annual Meeting of Shareholders

To the holders of Common Stock of Eli Lilly and Company:

The 2019 Annual Meeting of Shareholders of Eli Lilly and Company will be held as shown below:

TIME AND DATE	LOCATION	WHO CAN VOTE
11:00 a.m. EDT, Monday, May 6, 2019	The Lilly Center Auditorium Lilly Corporate Center Indianapolis, Indiana 46285	Shareholders of record at close of business on February 26, 2019

This proxy statement is dated March 22, 2019, and is first being sent or given to our shareholders on or about that date.

ITEMS OF BUSINESS

	Management Proposals	Board Voting Recommendation	Page Reference
Item 1	Election of the four directors listed in the proxy statement to serve three-year terms	**FOR** each of the director nominees	8
Item 2	Approval, by non-binding vote, of the compensation paid to the company's named executive officers	**FOR**	31
Item 3	Ratification of Ernst & Young LLP as the principal independent auditors for 2019	**FOR**	64
Item 4	Approve amendments to the Articles of Incorporation to eliminate the classified board structure	**FOR**	66
Item 5	Approve amendments to the Articles of Incorporation to eliminate all supermajority voting provisions	**FOR**	67
	Shareholder Proposal		
Item 6	Shareholder proposal requesting a report regarding direct and indirect political expenditures	**AGAINST**	69

There is a new admission procedure for attending the annual meeting this year. To gain admission, you must have an admission ticket. You must pre-register for the meeting to receive your admission ticket. Your request for an admission ticket must be received before 5:00 p.m. EDT on April 30, 2019. For further details on the new admission process and for information regarding how to attend the meeting, see the section titled "Meeting and Voting Logistics".

Every shareholder vote is important. If you are unable to attend the meeting in person, please sign, date, and return your proxy card or voting instructions by mail, or vote by telephone or online promptly so that a quorum may be represented at the meeting.

By order of the Board of Directors,

Bronwen L. Mantlo
Secretary

March 22, 2019
Indianapolis, Indiana

Important notice regarding the availability of proxy materials for the shareholder meeting to be held May 6, 2019: The annual report and proxy statement are available at **lilly.com/2018-annual-report**.

Proxy Statement Summary

What is New in This Year's Proxy Statement

In May 2018, R. David Hoover retired from the board and in December 2018, we welcomed Karen Walker to the board. Ms. Walker is the senior vice president and chief marketing officer at Cisco Systems. Her 20-plus years in the information technology industry have included senior field and marketing leadership roles in Europe, North America, and the Asia Pacific region. Ellen Marram will be retiring from the board in May 2019 and as of that time, Juan Luciano will serve as the board's lead independent director.

The board has approved, and recommends that the shareholders approve, the following management proposals at this year's meeting. The board recommends approval of amendments to the company's articles of incorporation to eliminate the classified board structure (see Item 4 herein) and to eliminate supermajority voting provisions (see Item 5 herein). The board believes these two proposals balance shareholder interests and demonstrate its accountability and willingness to take steps that address shareholder-expressed concerns.

This year the board updated its conflict of interest policy to clarify that a director must disclose his or her relationship with Lilly to the director's employer and any other organization with which the director has a relationship of trust and where the relationship with our company is relevant. In addition, the policy clarifies that directors must follow the internal conflict of interest policies and procedures of each such organization.

Highlights of 2018 Company Performance

The following provides a brief look at our 2018 performance in three dimensions: operating performance, progress with our innovation pipeline, and shareholder return (both absolute and relative). See our 2018 annual report on Form 10-K for more details.

Operating Performance

Performance highlights:

- 2018 revenue increased 7 percent to approximately $24.6 billion.
- 2018 earnings per share (EPS) on a reported basis were $3.13, compared to a 2017 EPS loss on a reported basis of $0.19.
- 2018 EPS increased 30 percent on a non-GAAP basis to $5.55.

A reconciliation of measures prepared in accordance with generally accepted accounting principles (GAAP) and externally reported non-GAAP measures is included in Appendix A.

2018 Innovation and Business Development Progress

We made significant pipeline advances in 2018, including:

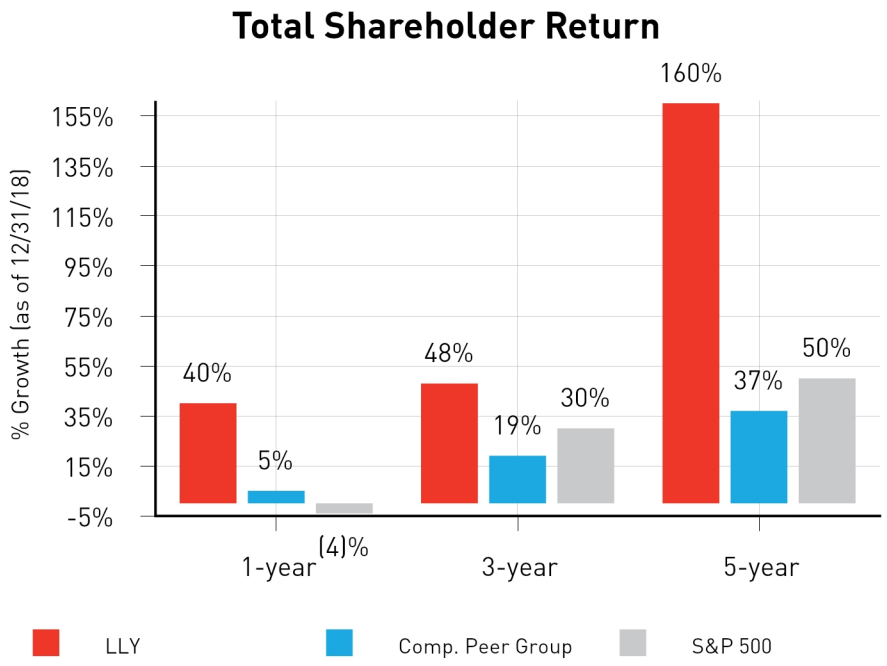
- U.S. and EU approval of Emgality® (galcanezumab-gnlm) for the preventive treatment of migraine in adults.
- EU approval of Verzenios® (abemaciclib) and approval in Japan of Verzenio® for the treatment of certain types of advanced or metastatic breast cancer.
- U.S. approval of the 2-mg dose of Olumiant® (baricitinib) for the treatment of adults with moderately-to-severely active rheumatoid arthritis.

We also had significant business development engagement in 2018, including:

- an initial public offering of Elanco Animal Health, Inc.
- a number of licenses, research collaborations, and acquisitions that will strengthen our pipeline, including the acquisition of ARMO BioSciences, an immuno-oncology company, and its lead product candidate pegilodecakin, which has demonstrated clinical benefit as a single agent, and in combination with both chemotherapy and checkpoint inhibitor therapy, across several tumor types.

Shareholder Returns

We generated strong shareholder returns (share price appreciation plus dividends, reinvested quarterly) through year-end 2018. Our returns significantly exceeded both the compensation peer group and the S&P 500 across the time periods presented below:



Governance

Item 1: Election of Directors

Further information see page 8

	Name and principal occupation	Public boards	Management recommendation	Vote required to pass
	**Ralph Alvarez, 63** Operating Partner, Advent International Corporation Director since 2009	Lowe's Companies, Inc. Dunkin' Brands Group, Inc.	**Vote FOR**	**Majority of votes cast**
	**Carolyn R. Bertozzi, Ph.D., 52** Professor of Chemistry and Investigator of the Howard Hughes Medical Institute, Stanford University Director since 2017	Catalent	**Vote FOR**	**Majority of votes cast**
	**Juan R. Luciano, 57** Chairman and Chief Executive Officer, Archer Daniels Midland Company Director since 2016	Archer Daniels Midland Company Wilmar International (alternate director)	**Vote FOR**	**Majority of votes cast**
	**Kathi P. Seifert, 69** Retired Executive Vice President, Kimberly-Clark Corporation Director since 1995	Investors Community Bank	**Vote FOR**	**Majority of votes cast**

Our Corporate Governance Policies Reflect Best Practices

- ✓ Our board membership is characterized by leadership, experience, and diversity.
- ✓ 13 of our 14 directors, and the members of all board committees, are independent.
- ✓ We have a strong, independent, clearly defined lead independent director role.
- ✓ Updated conflict of interest policy clarifies when Lilly board service must be disclosed.
- ✓ We are committed to board refreshment and seek to balance continuity and fresh perspectives.
- ✓ We conduct orientation and continuing education programs for directors.
- ✓ We have an annual cap on director compensation.
- ✓ Our board conducts a robust annual assessment of board performance, including an annual assessment of each individual director.
- ✓ We have a majority voting standard and resignation policy for the election of directors in uncontested elections.
- ✓ Our board values active shareholder engagement. As a result, we have put forward for consideration at this year's annual meeting management proposals to eliminate our classified board structure and supermajority voting provisions.
- ✓ We have no shareholder rights plan ("poison pill").
- ✓ The charters of the committees of the board clearly establish the committees' respective roles and responsibilities.
- ✓ Our board holds executive sessions of the independent directors at every regular board meeting and most committee meetings.
- ✓ Our independent directors have direct access to management and sole discretion to hire independent advisors at the company's expense.

- ✓ Our independent directors select and evaluate our CEO and ensure we have a strong succession plan for executive officer roles. Our Compensation Committee determines the compensation for our CEO and other executive officers.
- ✓ Our board actively oversees and approves our corporate strategy.
- ✓ Our board has a longstanding commitment to corporate responsibility.
- ✓ Our board oversees compliance and enterprise risk management practices.
- ✓ We have a comprehensive code of ethical and legal business conduct applicable to our board and all employees worldwide. This code is reviewed and approved annually by the board.
- ✓ We have a supplemental code for our CEO and all members of financial management, in recognition of their unique responsibilities to ensure proper accounting, financial reporting, internal controls, and financial stewardship.
- ✓ We have strong governance and disclosure of corporate political spending.
- ✓ We have transparent public policy engagement.
- ✓ We have meaningful stock ownership and retention guidelines for our directors and executive officers.

Compensation

Item 2: Advisory Vote on Compensation Paid to Named Executive Officers	Management recommendation	Vote required to pass
Further information see page 31	**Vote FOR**	Majority of votes cast

Our Executive Compensation Programs Reflect Best Practices

- ✓ We have had strong shareholder support of our compensation practices: in 2018, over 97 percent of shares cast voted in favor of our executive compensation programs.
- ✓ Our compensation programs are designed to align with shareholder interests and link pay to performance through a blend of short- and long-term performance measures.
- ✓ Our Compensation Committee annually reviews our compensation programs to ensure they provide incentives to deliver long-term, sustainable business results while discouraging excessive risk-taking or other adverse behaviors.
- ✓ We have a broad compensation recovery policy that applies to all executives and covers a wide range of misconduct.
- ✓ Our executive officers are subject to robust stock ownership and retention guidelines and are prohibited from hedging or pledging their company stock.
- ✓ We do not have "top hat" retirement plans—supplemental plans are open to all employees and are limited to restoring benefits lost due to IRS limits on qualified plans.
- ✓ We do not provide tax gross-ups to executive officers (except for limited gross-ups related to international assignments).
- ✓ We have a very restrictive policy on perquisites.
- ✓ Our severance plans related to change-in-control generally require a double trigger.
- ✓ We do not have employment agreements with any of our executive officers.

Executive Compensation Summary for 2018

At the time the total target compensation was established at the end of 2017, target compensation for our named executive officers (the six officers whose compensation is disclosed in this proxy statement) was in the middle range of the company's peer group. Incentive compensation payouts exceeded target, consistent with the company's strong performance in 2018.

Pay for Performance

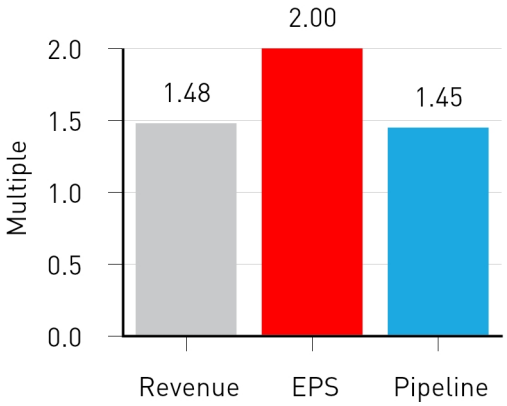
As described in the Compensation Discussion and Analysis (CD&A), we link our incentive pay programs to a balanced mix of measures on three dimensions of company performance: operating performance; progress with our innovation pipeline; and shareholder return (both absolute and relative).

The summary below highlights how our incentive pay programs are intended to align with company performance. Please also see Appendix A for any adjustments that were made to EPS for incentive compensation programs.

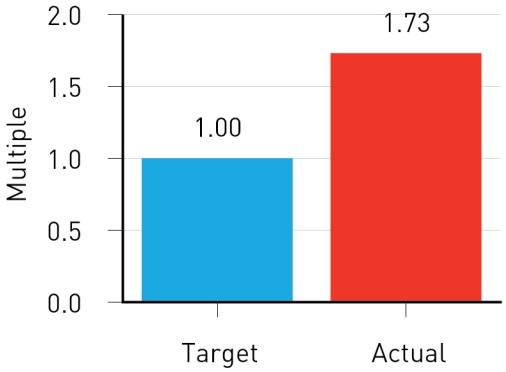
2018 Cash Bonus Plan Multiple

The company exceeded its annual cash bonus targets for revenue, EPS, and pipeline progress.

2018 Lilly Bonus Performance Multiples*



Lilly Resulting Bonus Payout Multiple

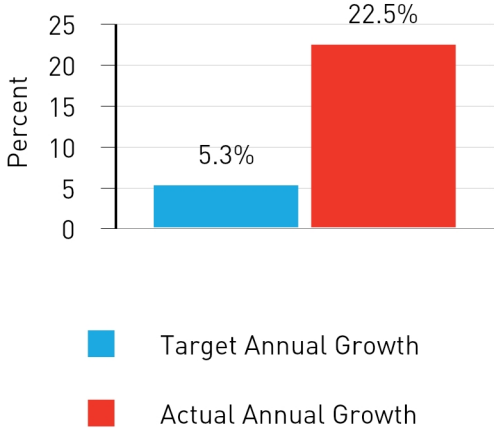


*Performance multiples are capped at 2.0.

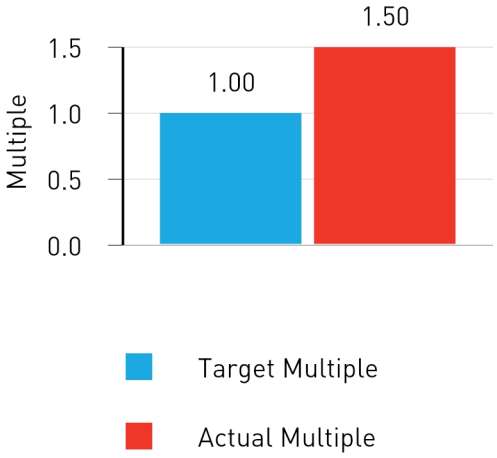
2017-2018 Performance Award Multiple

We exceeded the EPS growth targets under our performance award program, which has targets based on expected EPS growth of peer companies over a two-year period. This performance resulted in a performance award payout above target.

2017-2018 Annual EPS Growth



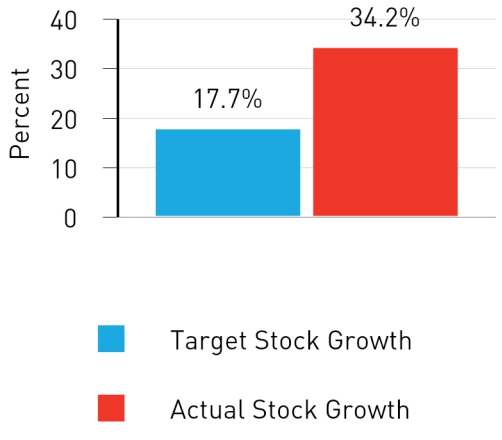
2017-2018 Payout Multiple



2016-2018 Shareholder Value Award Multiple

Our stock price growth exceeded the target range (17.7% to 30.2%) under our shareholder value award program, which is based on expected large-cap company returns over a three-year period. This performance resulted in a shareholder value award payout above target.

2016-2018 Cumulative Lilly Stock Growth



2016-2018 Shareholder Value Award Payout Multiple*

* Shareholder value award payouts were modified for individuals who were executive officers when the award was granted based on a three-year cumulative total shareholder return relative to peer companies. For 2018, the modifier resulted in a final payout of 1.50 percent of target. See the Compensation Discussion and Analysis section for further discussion on the shareholder value award program and the total shareholder return modifier.

Audit Matters

Item 3: Ratification of Appointment of Principal Independent Auditor	**Management recommendation**	**Vote required to pass**
Further information see page 64	**Vote FOR**	Majority of votes cast

Management Proposals

Item 4: Approval of Amendments to the Articles of Incorporation to Eliminate the Classified Board Structure	**Management recommendation**	**Vote required to pass**
Further information see page 66	**Vote FOR**	80% of outstanding shares

Item 5: Approval of Amendments to the Articles of Incorporation to Eliminate Supermajority Voting Provisions	**Management recommendation**	**Vote required to pass**
Further information see page 67	**Vote FOR**	80% of outstanding shares

Shareholder Proposal

Item 6: Shareholder Proposal Requesting a Report Regarding Direct and Indirect Political Contributions	Management recommendation	Vote required to pass
Further information see page 69	Vote AGAINST	Majority of votes cast

Voting

How to Vote in Advance of the Meeting

Even if you plan to attend the 2019 annual meeting in person, we encourage you to vote prior to the meeting via one of the methods described below.

ONLINE
Visit the website listed on your proxy card or voting instruction form

BY TELEPHONE
Call the telephone number on your proxy card or voting instruction form

BY MAIL
Sign, date, and return your proxy card or voting instruction form

Further information on how to vote is provided at the end of the proxy statement under "Other Information."

Voting at our 2019 Annual Meeting

You may also opt to vote in person at the 2019 annual meeting, which will be held on Monday, May 6, 2019, at the Lilly Corporate Center, Indianapolis, IN 46285, at 11:00 a.m., EDT. See the section titled "Other Information" for more information.

Governance

Item 1. Election of Directors

Under the company's articles of incorporation, the board is divided into three classes with approximately one-third of the directors standing for election each year. The term for directors to be elected this year will expire at the annual meeting of shareholders held in 2022. Each of the director nominees listed below has agreed to serve that term. The following sections provide information about our directors, including their qualifications, the director nomination process, and director compensation.

Board Recommendation on Item 1

The board recommends that you vote FOR each of the following nominees:

- Ralph Alvarez
- Carolyn R. Bertozzi, Ph.D.
- Juan R. Luciano
- Kathi P. Seifert

Board Operations and Governance

Board of Directors

Each of our directors is elected to serve until his or her successor is duly elected and qualified. If a bona fide nominee set forth in this proxy statement is unable to serve or for good cause will not serve, proxy holders may vote

for another nominee proposed by the board or, as an alternative, the board may reduce the number of directors to be elected at the annual meeting.

Director Biographies

Set forth below is information as of March 8, 2019, regarding the nominees for election, which has been confirmed by each of them for inclusion in this proxy statement. We have provided the most significant experiences, qualifications, attributes, and skills that led to the conclusion that each director or director nominee should serve as a director in light of our business and structure. Full biographies for each of our directors are available on our website at lilly.com/about/board-of-directors/Pages/board-of-directors.aspx.

No family relationship exists among any of our directors, director nominees, or executive officers. To the best of our knowledge, there are no pending material legal proceedings in which any of our directors or nominees for director, or any of their associates, is a party adverse to us or any of our affiliates, or has a material interest adverse to us or any of our affiliates. Additionally, to the best of our knowledge, there have been no events under any bankruptcy act, no criminal proceedings and no judgments, sanctions, or injunctions during the past 10 years that are material to the evaluation of the ability or integrity of any of our directors or nominees for director. There is no arrangement between any director or director nominee and any other person pursuant to which he or she was or is to be selected as a director or director nominee.

Class of 2019

The following four directors will seek election at this year's annual meeting. Three of these directors are standing for reelection; Carolyn Bertozzi is seeking election for the first time. See "Item 1. Election of Directors" above for more information.

Ralph Alvarez

Age: 63, Director since 2009, **Board Committees:** Compensation (chair); Science and Technology

PUBLIC BOARDS	PRIOR PUBLIC BOARDS	MEMBERSHIPS + OTHER ORGANIZATIONS
Lowe's Corporation, Inc.; Dunkin' Brand Group, Inc.	McDonald's Corporation; KeyCorp; Skylark Co., Ltd.; Realogy Holdings Corp.	University of Miami: President's Council; School of Business Administration Board of Overseers

CAREER HIGHLIGHTS

- **Advent International Corporation,** a leading global private equity firm
  - Operating Partner (2017 - present)
- **Skylark Co., Ltd.,** a leading restaurant operator in Japan
  - Chairman of the Board (2013 - 2018)
- **McDonald's Corporation**
  - President and Chief Operating Officer (2006 - 2009)

QUALIFICATIONS

Through his positions at Skylark Co., Ltd. and McDonald's Corporation, as well as with other global restaurant businesses, Mr. Alvarez has extensive experience in consumer marketing, global operations, international business, and strategic planning. His international experience includes a special focus on Japan and emerging markets. He also has extensive corporate governance experience through his service on other public company boards.

Carolyn R. Bertozzi, Ph.D.

Age: 52, Director since 2017, **Board Committees:** Public Policy and Compliance; Science and Technology

PUBLIC BOARDS	NON-PROFIT BOARDS	MEMBERSHIPS + OTHER ORGANIZATIONS
Catalent	Grace Science Foundation; Glenn Foundation	American Chemical Society; American Society for Biochemistry and Molecular Biology; American Chemical Society Publications, Editor-in-Chief of ACS Central Science; National Academy of Medicine; National Academy of Sciences; American Academy of Arts and Sciences; National Academy of Inventors; German Academy of Sciences Leopoldina; Foreign Fellow of the Royal Society

HONORS

MacArthur Genius Award; Lemelson MIT Prize; Heinrich Wieland Prize; National Academy of Sciences Award in the Chemical Sciences

CAREER HIGHLIGHTS

- **Stanford University**
  - Anne T. and Robert M. Bass Professor of Chemistry, Professor of Chemical and Systems Biology and Radiology by courtesy (2015 - present)
  - Baker Family Co-Director of Stanford ChEM-H (2017 - present)
- **Howard Hughes Medical Institute**
  - Investigator (2000 - present)
- **University of California, Berkeley**
  - T.Z. and Irmgard Chu Professor of Chemistry and Professor of Molecular and Cell Biology (1996 - 2015)

QUALIFICATIONS

Dr. Bertozzi is a prominent researcher and academician. She has extensive experience at Stanford University and the University of Berkeley, California, two major research institutions. Her deep expertise spans the disciplines of chemistry and biology, with an emphasis on studies of cell surface glycosylation associated with cancer, inflammation, and bacterial infection and exploiting this knowledge for development of diagnostic and therapeutic approaches.

Juan R. Luciano

Age: 57, Director since 2016, **Board Committees:** Finance (chair); Public Policy and Compliance

PUBLIC BOARDS	NON-PROFIT BOARDS	MEMBERSHIPS + OTHER ORGANIZATIONS
Archer Daniels Midland Company; Wilmar International (alternate director)	Intersect Illinois; Boys and Girls Clubs of America; Kellogg School of Management, Northwestern University	Economic Club of Chicago; Commercial Club of Chicago

CAREER HIGHLIGHTS

- **Archer Daniels Midland Company,** a global food-processing and commodities-trading company
  - Chairman (January 2016 - present)
  - CEO and President (2015 - present)
  - President (2014 - 2015)
  - Executive Vice President and Chief Operating Officer (2011 - 2014)
- **The Dow Chemical Company,** a multinational chemical company
  - Executive Vice President and President, Performance Division (2010 - 2011)

QUALIFICATIONS

Mr. Luciano has CEO and global business experience with Archer Daniels Midland Company, where he has established a reputation for strong result-oriented and strategic leadership, as well as many years of global leadership at The Dow Chemical Company. He brings to the board a strong technology and operations background, along with expertise in the highly-regulated food and agriculture sectors.

Kathi P. Seifert

Age: 69, Director since 1995, **Board Committees:** Audit; Compensation

PUBLIC BOARDS	PRIOR PUBLIC BOARDS	NON-PROFIT BOARDS
Investors Community Bank	Albertsons; Revlon Consumer Products Co.; Supervalu Inc.; Lexmark International, Inc.	Community Foundation for the Fox Valley Region; Fox Cities Building for the Arts; Fox Cities Chamber of Commerce; New North; Greater Fox Cities Area Habitat for Humanity; Riverview Gardens

CAREER HIGHLIGHTS

- **Katapult, LLC,** a provider of pro bono mentoring and consulting services to nonprofit organizations
  - Chairman (2004 - present)
- **Kimberly-Clark Corporation,** a global consumer products company
  - Executive Vice President (1999 - 2004)

QUALIFICATIONS

Ms. Seifert is a retired senior executive of Kimberly-Clark. She has strong expertise in consumer marketing and brand management, having led sales and marketing for several worldwide brands, with a special focus on consumer health. She has extensive corporate governance experience through her other board positions.

Class of 2020

The following five directors are serving terms that will expire in May 2020.

Michael L. Eskew

Age: 69, Director since 2008, **Board Committees:** Audit (chair); Compensation; Directors and Corporate Governance

PUBLIC BOARDS	NON-PROFIT BOARDS
3M Corporation; IBM Corporation; Allstate Insurance Company	Chairman of the board of trustees of The Annie E. Casey Foundation

CAREER HIGHLIGHTS

- **United Parcel Service, Inc.,** a global shipping and logistics company
  - UPS Board of Directors (1998 - 2014)
  - Chairman and CEO (2002 - 2007)
  - Vice Chairman (2000 - 2002)

QUALIFICATIONS

Mr. Eskew has CEO experience with UPS, where he established a record of success in managing complex worldwide operations, strategic planning, and building a strong consumer brand focus. He is an audit committee financial expert, based on his CEO experience and his service on other U.S. public company audit committees. He has extensive corporate governance experience through his service on the boards of other companies.

William G. Kaelin, Jr., M.D.

Age: 61, Director since 2012, **Board Committees:** Finance; Science and Technology (chair)

INDUSTRY MEMBERSHIPS	HONORS
National Academy of Medicine; National Academy of Sciences; Association of American Physicians; American Society of Clinical Investigation	Canada Gairdner International Award; Lefoulon-Delalande Prize - Institute of France

CAREER HIGHLIGHTS

- **Dana-Farber/Harvard Cancer Center**
  - Professor of Medicine (2002 - present)
- **Brigham and Women's Hospital**
  - Professor (2002 - present)
- **Howard Hughes Medical Institute**
  - Investigator (2002 - present)
  - Assistant Investigator (1998 - 2002)

QUALIFICATIONS

Dr. Kaelin is a prominent medical researcher and academician. He has extensive experience at Harvard Medical School, a major medical institution, as well as special expertise in oncology, a key component of Lilly's business. He also has deep expertise in basic science, including mechanisms of drug action, and experience with pharmaceutical discovery research.

David A. Ricks

Age: 51, Director since 2017, **Board Committees:** none

PUBLIC BOARDS	NON-PROFIT BOARDS	INDUSTRY MEMBERSHIPS
Adobe Inc; Elanco Animal Health, Inc.*	Board of Governors for Riley Children's Foundation; Central Indiana Community Partnership	International Federation of Pharmaceutical Manufacturers & Associations (IFPMA); Pharmaceutical Research and Manufacturers of America (PhRMA)

CAREER HIGHLIGHTS

- **Eli Lilly and Company**
  - Chairman of the Board, President and CEO (2017- present)
  - Senior Vice President and President, Lilly Bio-Medicines (2012 - 2016)

QUALIFICATIONS

Mr. Ricks was named President and CEO on January 1, 2017, and Chairman on June 1, 2017. Mr. Ricks joined Lilly in 1996 and most recently served as President of Lilly Bio-Medicines. He has deep expertise in product development, global sales and marketing, as well as public policy. He has significant global experience in leading the company's commercial operations.

* Mr. Ricks expects to resign from the Elanco board following the company's full divestiture of its Elanco shares.

Marschall S. Runge, M.D., Ph.D.

Age: 64, Director since 2013, **Board Committees:** Public Policy and Compliance; Science and Technology

NON-PROFIT BOARDS	MEMBERSHIPS + OTHER ORGANIZATIONS
Michigan Medicine	Experimental Cardiovascular Sciences Study Section of the National Institutes of Health

CAREER HIGHLIGHTS

- **University of Michigan**
  - CEO, Michigan Medicine (2015 - present)
  - Executive Vice President for Medical Affairs (2015 - present)
  - Dean, Medical School (2015 - present)
- **University of North Carolina, School of Medicine**
  - Executive Dean (2010 - 2015)
  - Chair of the Department of Medicine (2000 - 2015)
  - Principal Investigator and Director of the North Carolina Translational and Clinical Sciences Institute (2010 - 2015)

QUALIFICATIONS

Dr. Runge brings the unique perspective of a practicing physician who has a broad background in health care and academia. He has extensive experience as a practicing cardiologist, a strong understanding of health care facility systems, and deep expertise in biomedical research and clinical trial design.

Karen Walker

Age: 57, Director since 2018, **Board Committees:** Audit; Public Policy and Compliance

NON-PROFIT BOARDS	MEMBERSHIPS + OTHER ORGANIZATIONS
Salvation Army Advisory Board of Silicon Valley	Association of National Advertisers; IT Services Marketing Association; CMO Council; Marketers that Matter

CAREER HIGHLIGHTS

- **Cisco Systems,** a provider of packaging products, aerospace and other technologies and services to commercial and governmental customers
  - Senior Vice President and Chief Marketing Officer (2015 - present)
  - Senior Vice President, Marketing (2013 - 2015)
  - Senior Vice President of Segment, Services and Partner Marketing (2012 - 2013)
  - Vice President of Services Marketing (2008 - 2012)

QUALIFICATIONS

Ms. Walker brings extensive marketing and digital expertise. She has valuable commercial experience developed through her business and consumer leadership positions in the information technology industry and is a recognized industry authority on both technology and marketing. Her business expertise includes senior field and marketing roles in Europe, North America, and the Asia Pacific region.

Class of 2021

With the exception of Ellen Marram, who will retire in May 2019, the following five directors are serving terms that will expire in May 2021.

Katherine Baicker, Ph.D.

Age: 47, Director since 2011, **Board Committees:** Audit, Public Policy and Compliance (chair)

MEMBERSHIPS + OTHER ORGANIZATIONS

Panel of Health Advisers to the Congressional Budget Office; Editorial Board of Health Affairs; Research Associate of the National Bureau of Economic Research; Member of the National Academy of Medicine; and American Academy of of Arts and Sciences

CAREER HIGHLIGHTS

- **Harris School of Public Policy, University of Chicago**
  - Dean and the Emmett Dedmon Professor (2017 - present)
- **Harvard T.H. Chan School of Public Health, Department of Health Policy and Management**
  - C. Boyden Gray Professor (2014 -2017)
  - Acting Chair (2014 - 2016)
  - Professor of health economics (2007 - 2017)
- **Council of Economic Advisers, Executive Office of the President**
  - Member (2005 - 2007)
  - Senior Economist (2001 - 2002)

QUALIFICATIONS

Dr. Baicker is a leading researcher in the fields of health economics, public economics, and labor economics. As a valued adviser to numerous health care-related commissions and committees, her expertise in health policy and health care delivery is recognized in both academia and government.

J. Erik Fyrwald

Age: 59, Director since 2005, **Board Committees:** Public Policy and Compliance; Science and Technology

PUBLIC BOARDS	PRIVATE BOARDS	NON-PROFIT BOARDS
Bunge Limited	Syngenta International AG	UN World Food Program Farm to Market Initiative; Crop Life International; Swiss-American Chamber of Commerce

CAREER HIGHLIGHTS

- **Syngenta International AG,** a global Swiss-based agriculture technology company that produces agrochemicals and seeds
  - CEO (2016 - present)
- **Univar, Inc.,** a leading distributor of chemicals and provider of related services
  - President and CEO (2012 - 2016)
- **Ecolab,** a leading provider of cleaning, sanitization, and water products and services
  - President (2012)
- **Nalco Company,** a leading provider of water treatment products and services
  - Chairman and Chief Executive Officer (2008 - 2011)
- **E.I. duPont de Nemours and Company,** a global chemical company
  - Group Vice President, agriculture and nutrition (2003 - 2008)

QUALIFICATIONS

Mr. Fyrwald has a strong record of operational and strategic leadership in three complex worldwide businesses with a focus on technology and innovation. He is an engineer by training and has significant CEO experience with Syngenta, Univar, and Nalco.

Jamere Jackson

Age: 50, Director since 2016, **Board Committees:** Audit; Finance

CAREER HIGHLIGHTS

- **Hertz Global Holdings, Inc.,** a global vehicle rental, leasing, and fleet management business
  - Chief Financial Officer (2018 - present)
- **Nielsen Holdings plc,** a global measurement and data analytics company
  - Chief Financial Officer (2014 - 2018)
- **GE**
  - Vice President and CFO, GE Oil & Gas, drilling and surface division (2013 - 2014)
  - Senior Executive, Finance, GE Aviation (2007 - 2013)
  - Finance Executive, GE Corporate (2004 - 2007)

QUALIFICATIONS

Through his senior financial roles at Nielsen and GE, Mr. Jackson brings to the board significant global financial expertise and strong background in strategic planning, having spent his professional career in a broad range of financial and strategic planning roles. He is an audit committee financial expert, based on his CFO experience and his training as a certified public accountant.

Ellen R. Marram

Age: 72, Director since 2002, lead independent director since 2012, **Board Committees:** Compensation; Directors and Corporate Governance (chair)

PUBLIC BOARDS	PRIOR PUBLIC BOARDS	PRIVATE BOARDS	NON-PROFIT BOARDS
Ford Motor Company	Cadbury plc; The New York Times Company	Newman's Own, Inc.	Wellesley College; New York-Presbyterian Hospital; Lincoln Center Theater; Newman's Own Foundation

CAREER HIGHLIGHTS

- **The Barnegat Group LLC**, provider of business advisory services
  - President (2006 - present)
- **North Castle Partners, LLC,** private equity firm
  - Managing Director (2000 - 2006)
- **Tropicana Beverage Group**
  - President and Chief Executive Officer (1993 - 1998)
- **Nabisco Biscuit Company**, a unit of Nabisco, Inc.
  - President and Chief Executive Officer (1988 - 1993)

QUALIFICATIONS

Ms. Marram is a former CEO with a strong marketing and consumer-brand background. Through her non-profit and private company activities, she has a special focus and expertise in wellness and consumer health. Ms. Marram has extensive corporate governance experience through service on other public company boards in a variety of industries.

Jackson P. Tai

Age: 68, Director since 2013, **Board Committees:** Audit; Directors and Corporate Governance; Finance

PUBLIC BOARDS	PRIOR PUBLIC BOARDS	PRIVATE BOARD	NON-PROFIT BOARDS
MasterCard Incorporated; Royal Phillips NV (until March 31, 2019); HSBC Holdings	The Bank of China Limited; Singapore Airlines; NYSE Euronext; ING Groep NV; CapitaLand (Singapore); DBS Holdings and DBS Bank	Canada Pension Plan Investment Board (until March 31, 2019)	Metropolitan Opera; Rensselaer Polytechnic Institute

CAREER HIGHLIGHTS

- **DBS Group Holdings and DBS Bank (formerly the Development Bank of Singapore)**, one of the largest financial services groups in Asia
  - Vice Chairman and Chief Executive Officer (2002 - 2007)
  - President and Chief Operating Officer (2001 - 2002)
- **J.P. Morgan & Co. Incorporated,** a leading global financial institution

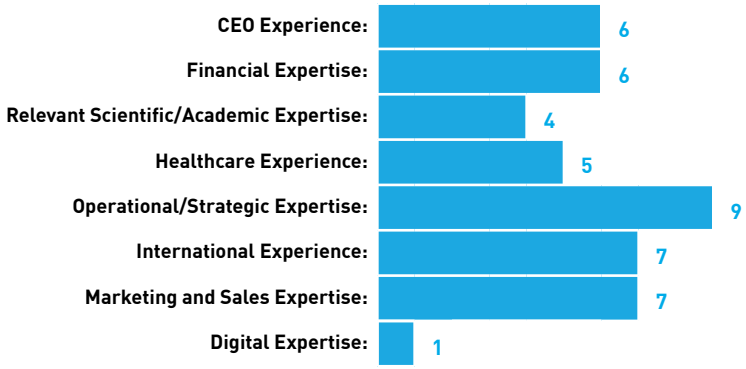
QUALIFICATIONS

Mr. Tai is a former CEO with extensive experience in international business and finance, and is an audit committee financial expert. He has deep expertise in the Asia-Pacific region, an important growth market for Lilly. He also has broad corporate governance experience from his service on public company boards in the U.S., Europe, and Asia.

Director Qualifications and Nomination Process

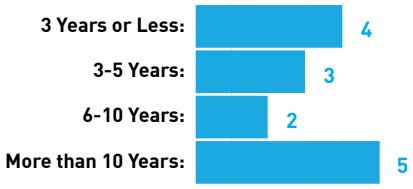
Director Qualifications

Experience: Our directors are responsible for overseeing the company's business consistent with their fiduciary duties. This significant responsibility requires highly skilled individuals with various qualities, attributes, and professional experience. We believe the board is well-rounded, with a balance of relevant perspectives and experience, as illustrated in the following chart:



Board Tenure: As the following chart demonstrates, our director composition reflects a mix of tenure on the board, which provides an effective balance of historical perspective and an understanding of the evolution of our business with fresh perspectives and insights.

In 2018, Karen Walker joined the board and David Hoover retired from the board. Ellen Marram, who joined the board in 2002, will retire in May 2019.



Diversity: The board strives to achieve diversity in the broadest sense, including persons diverse in geography, gender, ethnicity, age, and experiences. Although the board does not establish specific diversity goals or have a standalone diversity policy, the board's overall diversity is an important consideration in the director selection and nomination process. The Directors and Corporate Governance Committee assesses the effectiveness of board diversity efforts in connection with the annual nomination process as well as in new director searches. The company's 14 directors range in age from 46 to 72 and include five women and four ethnically diverse members.

Character: Board members should possess the personal attributes necessary to be an effective director, including unquestioned integrity, sound judgment, a collaborative spirit, and commitment to the company, our shareholders, and other constituencies.

Director Refreshment

The Directors and Corporate Governance Committee performs periodic assessments of the overall composition and skills of the board in order to ensure that the board and management are actively engaged in succession planning for directors, and that our board reflects the viewpoints, diversity, and expertise necessary to support our complex and evolving business. The Directors and Corporate Governance Committee, with input from all board members, also considers the contributions of the individual directors.

The results of these assessments inform the board's recommendations on nominations for directors at the annual meeting each year and help provide us with insight on the types of experiences, skills, and other characteristics we should be seeking for future director candidates. Based on this assessment, the Directors and Corporate Governance Committee has recommended that the directors in the 2019 class be elected at the 2019 annual meeting.

The board delegates the director screening process to the Directors and Corporate Governance Committee, which receives input from other board members. Director candidates are identified from several sources, including executive search firms retained by the committee, incumbent directors, management, and shareholders.

The Directors and Corporate Governance committee employs the same process for evaluating all candidates, including those submitted by shareholders. The committee initially evaluates a candidate based on publicly available information and any additional information supplied by the party recommending the candidate. If the candidate appears to satisfy the selection criteria and the committee's initial evaluation is favorable, the committee, assisted by management or a search firm, gathers additional data on the candidate's qualifications, availability, probable level of interest, and any potential conflicts of interest. If the committee's subsequent evaluation continues to be favorable, the candidate is contacted by the Chairman of the Board and one or more of the independent directors, including the lead independent director, for direct discussions to determine the mutual level of interest in pursuing the candidacy. If these discussions are favorable, the committee recommends that the board nominate the candidate for election by the shareholders (or elects the candidate to fill a vacancy, as applicable).

Director Compensation

Director compensation is reviewed and approved annually by the board, on the recommendation of the Directors and Corporate Governance Committee. Directors who are employees receive no additional compensation for serving on the board.

Cash Compensation

The following table shows the retainers and meeting fees for all non-employee directors in effect in 2018.

Board Retainers (annual, paid in monthly installments)		**Committee Retainers** (annual, paid in monthly installments)	
Annual Board Retainer	$110,000	Audit Committee; Science and Technology Committee members (including the chairs)	$6,000
Annual Retainers (in addition to annual board retainer):		Compensation Committee; Directors and Corporate Governance Committee; Finance Committee; Public Policy and Compliance Committee members (including the chairs)	$3,000
Lead Independent Director	$35,000	Audit Committee Chair	$18,000
Compensation Committee Chair; Directors and Corporate Governance Committee Chair; Finance Committee Chair; Public Policy and Compliance Committee Chair	$12,000	Science and Technology Committee Chair	$15,000

Directors are reimbursed for customary and usual travel expenses in connection with their travel to and from board meetings and other company events. Directors may also receive additional cash compensation for serving on ad hoc committees that may be formed from time to time.

Stock Compensation

Directors are required to hold meaningful equity ownership positions in the company, and may not sell the equity compensation they earn as a director until after leaving the board. A significant portion of director compensation is in the form of deferred Lilly stock payable after they leave the board. Directors are required to hold Lilly stock, directly or through company plans, valued at not less than five times their annual board retainer; new directors are allowed five years to reach this ownership level. All directors serving at least five years have satisfied these guidelines, and all other directors are making progress toward these requirements.

In 2018, non-employee directors received $175,000 of equity compensation (but no more than 7,500 shares), deposited annually in a deferred stock account in the Lilly Directors' Deferral Plan (as described below). This award is prorated for time served and payable beginning the second January following the director's departure from board service.

Annual Compensation Cap for Directors

In 2018, the board approved a cap to the total annual compensation (cash and equity compensation) for non-employee directors of $800,000. The cap is intended to avoid excessive director compensation and is included in

both our Directors' Deferral Plan and in the Amended and Restated 2002 Lilly Stock Plan approved by shareholders at the 2018 annual shareholders' meeting.

Lilly Directors' Deferral Plan: The Lilly Directors' Deferral Plan allows non-employee directors to defer receipt of all or part of their cash compensation until after their service on the board has ended. Each director can choose to invest the amounts deferred in one or both of the following two accounts:

Deferred Stock Account. This account allows the director, in effect, to invest his or her deferred cash compensation in company stock. Funds in this account are credited as hypothetical shares of company stock based on the closing stock price on pre-set monthly dates. In addition, the annual stock compensation award as described above is also credited to this account. The number of shares credited is calculated by dividing the $175,000 annual compensation figure by the closing stock price on a pre-set annual date. Hypothetical dividends are "reinvested" in additional shares based on the market price of the stock on the date dividends are paid. Actual shares are issued on the second January following the director's departure from board service.

Deferred Compensation Account. Funds in this account earn interest each year at a rate of 120 percent of the applicable federal long-term rate, compounded monthly, as established the preceding December by the U.S. Treasury Department under Section 1274(d) of the Internal Revenue Code of 1986 (the Internal Revenue Code). The aggregate amount of interest that accrued in 2018 for the participating directors was $143,381, at a rate of 3.1 percent. The rate for 2019 is 3.9 percent.

Both accounts may generally only be paid out in a lump sum or in annual installments for up to 10 years, beginning the second January following the director's departure from board service. Amounts in the deferred stock account are paid in shares of company stock.

2018 Compensation for Non-Employee Directors

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)[1]	All Other Compensation and Payments ($)[2]	Total ($)[3]
Mr. Alvarez	$131,000	$175,000	$0	$306,000
Dr. Baicker	$127,000	$175,000	$0	$302,000
Dr. Bertozzi	$119,000	$175,000	$0	$294,000
Mr. Eskew	$140,000	$175,000	$0	$315,000
Mr. Fyrwald	$123,000	$175,000	$1,205	$299,205
Mr. Jackson	$119,000	$175,000	$0	$294,000
Dr. Kaelin	$134,000	$175,000	$0	$309,000
Mr. Luciano	$124,000	$175,000	$0	$299,000
Ms. Marram	$163,000	$175,000	$30,000	$368,000
Dr. Runge	$119,000	$175,000	$1,000	$295,000
Ms. Seifert	$119,000	$175,000	$16,841	$310,841
Mr. Tai	$121,000	$175,000	$30,000	$326,000
Ms. Walker	$9,917	$14,583	$0	$24,500
Retired				
Mr. Hoover	$53,333	$72,917	$30,000	$156,250

[1] Each non-employee director received an award of stock valued at $175,000 (approximately 1,511 shares), except Mr. Hoover (who retired from the board in May 2018) and Ms. Walker (who joined the board in December 2018), who each received a pro-rated award for a partial year of service. This stock award and all prior stock awards are fully vested; however, the shares are not issued until the second January following the director's departure from board service, as described above under "Lilly Directors' Deferral Plan." The column shows the grant date fair value for each director's stock award computed in accordance with FASB ASC Topic 718, based on the closing stock price on the grant date. See Note 11 of the consolidated financial statements in the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 for additional detail regarding assumptions underlying the valuation of equity awards. Aggregate outstanding stock awards are shown in the "Common Stock Ownership by Directors and Executive Officers" table in the "Stock Units Not Distributable Within 60 Days" column.

[2] This column consists of amounts donated by the Eli Lilly and Company Foundation, Inc. ("Foundation") under its matching gift program, which is generally available to U.S. employees as well as non-employee directors. Under this program, the Foundation matched 100 percent of charitable donations over $25 made to eligible charities, up to a maximum of $30,000 per year for each individual. The Foundation matched these donations via payments made directly to the recipient charity. The amounts for Mr. Fyrwald, Mr. Hoover, Ms. Marram, Dr. Runge, Ms. Seifert, and Mr. Tai include matching contributions for donations made at the end of 2017 (Mr. Fyrwald - $1,205; Mr. Hoover - $30,000; Ms. Marram - $8,000; Dr. Runge - $1,000; Ms. Seifert - $11,000; and Mr. Tai - $30,000), for which the matching contribution was not paid until 2018.

[3] Directors do not participate in a company pension plan or non-equity incentive plan.

2019 Director Compensation

In 2018, the Directors and Corporate Governance Committee reviewed the company's compensation for independent directors, including a peer group analysis which showed total director compensation slightly above the median. As a result of this analysis, the committee recommended no changes to independent director compensation for 2019.

Director Independence

The board annually determines the independence of directors based on a review by the Directors and Corporate Governance Committee. No director is considered independent unless the board has determined that he or she has no material relationship with the company, either directly or as a partner, significant shareholder, or officer of an organization that has a material relationship with the company. Material relationships can include commercial, industrial, banking, consulting, legal, accounting, charitable, and familial relationships, among others. To evaluate the materiality of any such relationship, the board has adopted categorical independence standards consistent with the New York Stock Exchange (NYSE) listing standards, except that the "look-back period" for determining whether a director's prior relationship(s) with the company impairs independence is extended from three to four years.

The company's process for determining director independence is set forth in our Standards for Director Independence, which can be found on our website at lilly.com/who-we-are/governance, along with our Corporate Governance Guidelines.

On the recommendation of the Directors and Corporate Governance Committee, the board determined that each current non-employee director is independent. Prior to his retirement in 2018, the board reached the same conclusions regarding Dr. Hoover, and determined that the members of each committee also meet our independence standards. The board determined that none of the non-employee directors has had during the last four years (i) any of the relationships identified in the company's categorical independence standards or (ii) any other material relationship with the company that would compromise his or her independence. The table that follows includes a description of categories or types of transactions, relationships, or arrangements the board considered in reaching its determinations.

Director	Organization	Type of Organization	Director Relationship to Organization	Primary Type of Transaction/ Relationship/ Arrangement between Lilly and Organization	2018 Aggregate Percentage of Organization's Revenue
Dr. Baicker	University of Chicago	Educational Institution	Employee	Research grants	Less than 0.1 percent
Dr. Bertozzi	Stanford University	Educational Institution	Employee	Research grants	Less than 0.1 percent
Mr. Fyrwald	Syngenta International AG	For-profit Corporation	Executive Officer	Purchase of products	Less than 0.1 percent
Mr. Jackson	Hertz Global Holdings Inc	For-profit Corporation	Executive Officer	Purchase of products	Less than 0.1 percent
	Nielsen Holdings plc	For-profit Corporation	Former Executive Officer	Purchase of products	Less than 0.1 percent
Dr. Kaelin	Harvard University	Educational Institution	Employee	Research grants	Less than 0.1 percent
	Brigham and Women's Hospital	Health Care Institution	Employee	Research grants	Less than 0.1 percent
	Dana-Farber Cancer Institute	Health Care Institution	Employee	Research grants	Less than 0.1 percent
Mr. Luciano	Archer Daniels Midland	For-profit Corporation	Executive Officer	Purchase of products	Less than 0.1 percent
				Sale of products	Less than 0.1 percent of Lilly's revenue
Dr. Runge	University of Michigan Medical School	Educational Institution	Executive Officer	Research grants	Less than 0.1 percent
Ms. Walker	Cisco Systems Inc	For-profit Corporation	Employee	Purchase of products	Less than 0.1 percent

All of the transactions described above were entered into at arm's length in the normal course of business and, to the extent they are commercial relationships, have standard commercial terms. Aggregate payments to each of the organizations, in each of the last four fiscal years, did not exceed the greater of $1 million or 2 percent of that organization's consolidated gross revenues in a single fiscal year for the relevant four-year period. No director had any direct business relationships with the company or received any direct personal benefit from any of these transactions, relationships, or arrangements.

Committees of the Board of Directors

The duties and membership of the six board-appointed committees are described below. All committee members are independent as defined in the NYSE listing requirements and Lilly's independence standards. The members of the Audit and Compensation Committees each meet the additional independence requirements applicable to them as members of those committees.

The Directors and Corporate Governance Committee makes recommendations to the board regarding director committee membership and selection of committee chairs. The board has no set policy for rotation of committee members or chairs but annually reviews committee memberships and chair positions, seeking the best blend of continuity and fresh perspectives.

The chair of each committee determines the frequency and agenda of committee meetings. The Audit, Compensation, and Public Policy and Compliance Committees meet alone in executive session on a regular basis; all other committees meet in executive session as needed.

Membership and Meetings of the Board and Its Committees

In 2018, each director attended at least 80 percent of the total number of meetings of the board and the committees on which he or she served during his or her tenure as a board or committee member. In addition, all board members are expected to attend the 2019 annual meeting, and all directors then serving attended the annual meeting in 2018. Current committee membership and the number of meetings of the board and each committee in 2018 are shown in the table below.

Name	Board	Audit	Compensation	Directors and Corporate Governance	Finance	Public Policy and Compliance	Science and Technology
Mr. Alvarez	✓		C				✓
Dr. Baicker	✓	✓				C	
Dr. Bertozzi	✓					✓	✓
Mr. Eskew	✓	C	✓	✓			
Mr. Fyrwald	✓					✓	✓
Mr. Jackson	✓	✓			✓		
Dr. Kaelin	✓				✓		C
Mr. Luciano	✓				C	✓	
Ms. Marram	LD		✓	C			
Mr. Ricks	✓						
Dr. Runge	✓					✓	✓
Ms. Seifert	✓	✓	✓				
Mr. Tai	✓	✓		✓	✓		
Ms. Walker	✓	✓				✓	
Number of 2018 Meetings	6	10	6	6	8	4	5

C Committee Chair
LD Lead Independent Director: Ms. Marram will be the lead independent director until May 2019, at which time she will retire from serving on the board. Mr. Luciano has been appointed as the new lead independent director starting in May 2019, pending his reelection at the 2019 annual meeting.

All six committee charters are available online at lilly.com/who-we-are/governance, or upon request to the company's corporate secretary. Key responsibilities of each committee are set forth below.

Audit Committee

The Audit Committee assists the board in fulfilling its oversight responsibilities by monitoring:

- the integrity of financial information provided to the shareholders and others
- management's systems of internal controls and disclosure controls
- the performance of internal and independent audit functions
- the company's compliance with legal and regulatory requirements.

The committee has sole authority to appoint or replace the independent auditor, subject to shareholder ratification.

The Board of Directors has determined that Mr. Eskew, Mr. Jackson, and Mr. Tai are audit committee financial experts, as defined in the SEC rules.

Compensation Committee

The Compensation Committee:

- oversees the company's global compensation philosophy and policies
- establishes the compensation of our CEO and other executive officers
- acts as the oversight committee with respect to the company's deferred compensation plans, management stock plans, and other management incentive compensation programs

- reviews succession plans for the CEO and other key senior leadership positions
- reviews, monitors, and oversees stock ownership guidelines for executive officers.

Compensation Committee Interlocks and Insider Participation

None of the Compensation Committee members:

- has ever been an officer or employee of the company
- is or has been a participant in a related-person transaction with the company (see "Review and Approval of Transactions with Related Persons" for a description of our policy on related-person transactions)
- has any other interlocking relationships requiring disclosure under applicable SEC rules.

Directors and Corporate Governance Committee

The Directors and Corporate Governance Committee:

- leads the process for director recruitment, together with the lead independent director
- recommends to the board candidates for membership on the board and its committees, as well as for the role of lead independent director
- oversees matters of corporate governance, including board performance, director independence and compensation, corporate governance guidelines, and shareholder engagement on governance matters.

Finance Committee

The Finance Committee reviews and makes recommendations to the board regarding financial matters, including:

- capital structure and strategies
- dividends
- stock repurchases
- capital expenditures
- investments, financing, and borrowings
- benefit plan funding and investments
- financial risk management
- significant business development opportunities.

Public Policy and Compliance Committee

The Public Policy and Compliance Committee:

- reviews, identifies and when appropriate, brings to the attention of the board political, social, and legal trends and issues, and compliance and quality matters that may have an impact on the business operations, financial performance, or public image of the company
- reviews, monitors, and makes recommendations to the board on corporate policies and practices that relate to public policy and compliance.

Science and Technology Committee

The Science and Technology Committee:

- reviews and makes recommendations regarding the company's strategic research goals and objectives
- reviews new developments, technologies, and trends in pharmaceutical research and development
- reviews the progress of the company's product pipeline
- reviews the scientific aspects of significant business development opportunities
- oversees matters of scientific and medical integrity and risk management.

Board Oversight of Compliance and Risk Management

The board, together with its committees, oversees the processes by which the company conducts its business to ensure the company operates in a manner that complies with laws and regulations and reflects the highest standards of integrity. On an annual basis, the full board reviews the company's overall state of compliance.

The company also has an enterprise risk management program directed by its chief ethics and compliance officer, who reports directly to the CEO. Enterprise risks are identified and prioritized by management through both top-down and bottom-up processes. The risk management program is overseen by the full board, and certain prioritized risks are reviewed by a board committee or the full board. Company management is charged with managing risk through robust internal processes and controls. The enterprise risk management program as a whole is reviewed annually at a full board meeting, and enterprise risks are also addressed in periodic business function reviews and at the annual board and senior management strategy session.

Code of Ethics

The board approves the company's code of ethics, which is set out in:

The Red Book: a comprehensive code of ethical and legal business conduct applicable to all employees worldwide and to our Board of Directors. The Red Book is reviewed and approved annually by the board.

Code of Ethical Conduct for Lilly Financial Management: a supplemental code for our CEO and all members of financial management, in recognition of their unique responsibilities to ensure proper accounting, financial reporting, internal controls, and financial stewardship.

These documents are available online at: lilly.com/who-we-are/governance/ethics-and-compliance-program and lilly.com/ethical-conduct-for-financial-management, or upon request to the company's corporate secretary. In the event of any amendments to, or waivers from, a provision of the code affecting the CEO, chief financial officer, chief accounting officer, controller, or persons performing similar functions, we intend to post on the above website within four business days after the event a description of the amendment or waiver as required under applicable SEC rules, and we will maintain that information on our website for at least 12 months.

Highlights of the Company's Corporate Governance

The company is committed to good corporate governance, which promotes the long-term interests of shareholders and other company stakeholders, builds confidence in our company leadership, and strengthens accountability by the board and company management. The board has adopted corporate governance guidelines that set forth the company's basic principles of corporate governance. The section that follows outlines key elements of the guidelines and other governance matters. Investors can learn more by reviewing the corporate governance guidelines, which are available online at lilly.com/who-we-are/governance or upon request to the company's corporate secretary.

Role of the Board

The directors are elected by the shareholders to oversee the actions and results of the company's management. The board exercises oversight over a broad range of areas, but the board's key responsibilities include the following (certain of which are carried out through the board's committees):

- providing general oversight of the business
- approving corporate strategy
- approving major management initiatives
- selecting, compensating, evaluating, and, when necessary, replacing the CEO, and compensating other key senior leadership positions
- ensuring that an effective succession plan is in place for all key senior leadership positions and reviewing the broader talent management process, including diversity and inclusion
- overseeing the company's ethics and compliance program and management of significant business risks
- nominating, compensating, and evaluating directors
- overseeing the company's enterprise risk management program.

The board takes an active role in its oversight of our corporate strategy. Each year, the board and executive management closely examine the company's strategy, including key risks and decisions facing the company. Decisions reached in this session are updated throughout the year, including as the board discusses the company's financial performance, the performance of our business units, and progress in our pipeline.

Board Composition and Requirements

Mix of Independent Directors and Officer-Directors

We believe there should always be a substantial majority (75 percent or more) of independent directors. The CEO should be a member of the board.

Voting for Directors

In an uncontested election, directors are elected by a majority of votes cast. An incumbent nominee who fails to receive a greater number of votes "for" than "against" his or her election will tender his or her resignation from the board (following the certification of the shareholder vote). The board, on recommendation of the Directors and Corporate Governance Committee, will decide whether to accept the resignation. The company will promptly disclose the board's decision, including, if applicable, the reasons the board rejected the resignation.

Director Tenure and Retirement Policy

Non-employee directors must retire no later than the date of the annual meeting that follows their seventy-second birthday, although the Directors and Corporate Governance Committee has authority to recommend exceptions to this policy. The Directors and Corporate Governance Committee, with input from all board members, also considers the contributions of the individual directors annually, with a more robust assessment at least every three years when considering whether to nominate directors to new three-year terms. The company has not adopted term limits because the board believes that arbitrary term limits on a director's service are not appropriate.

Other Board Service

In general, no director may serve on more than three other public company boards. The Directors and Corporate Governance Committee may approve exceptions if it determines that the additional service will not impair the director's effectiveness on the Lilly board.

Board Confidentiality Policy

The board has adopted a Confidentiality Policy, applicable to all current and future members of the board. The policy prohibits a director from sharing confidential information obtained in his or her role as a director with any outside party except under limited circumstances where the director is seeking legal advice or is required to disclose information by order of law. The Confidentiality Policy can be viewed on the company's website: lilly.com/about/corporate-governance/Pages/corporate-governance.aspx.

Leadership Structure; Oversight of Chairman, CEO, and Senior Management

Leadership Structure

The board currently believes that combining the role of Chairman of the Board and CEO, coupled with a strong lead independent director position (see the description of the role below), is the most efficient and effective leadership model for the company, fostering clear accountability, effective decision making, and alignment on corporate strategy. The board periodically reviews its leadership structure and developments in the area of corporate governance to ensure that this approach continues to strike the appropriate balance for the company and our stakeholders. Such a review was conducted most recently during the succession-management process relating to the appointment of Mr. Ricks as chairman, effective June 2017.

Board Independence

The board has put in place a number of governance practices to ensure effective independent oversight, including:

- **Executive sessions of the independent directors:** held after every regular board meeting.
- **Annual performance evaluation of the chairman and CEO:** conducted by the independent directors, the results of which are reviewed with the CEO and considered by the Compensation Committee in establishing the CEO's compensation for the next year.

- **A strong, independent, clearly defined lead independent director role:** The lead independent director's responsibilities include:
  - leading the board's processes for selecting and evaluating the CEO
  - presiding at all meetings of the board at which the chairman is not present
  - serving as a liaison between the chairman and the independent directors
  - if requested by major shareholders, ensuring that he or she is available for consultation and direct communication
  - approving meeting agendas and schedules and generally approving information sent to the board
  - conducting executive sessions of the independent directors
  - overseeing the independent directors' annual performance evaluation of the chairman and CEO
  - together with the Directors and Corporate Governance Committee, leading the director recruitment process.

- The lead independent director also has authority to call meetings of the independent directors and to retain advisors for the independent directors.

- The lead independent director is appointed annually by the board. Currently Ms. Marram is the lead independent director. Ms. Marram will retire from the board in May 2019, at which time Mr. Luciano, contingent upon his reelection at the 2019 annual meeting, will become the new lead independent director.

- **Director access to management and independent advisors:** Independent directors have direct access to members of management whenever they deem it necessary, and the company's executive officers attend part of each regularly scheduled board meeting. The independent directors and all committees are also free to retain their own independent advisors, at the company's expense, whenever they feel it would be desirable to do so.

CEO Succession Planning

The Compensation Committee, board, and CEO annually review the company's succession plans for the CEO and other key senior leadership positions. The independent directors also meet without the CEO to discuss CEO succession planning.

During these reviews, the CEO and directors discuss:

- future candidates for the CEO and other senior leadership positions
- succession timing
- development plans for the highest-potential candidates.

The independent directors and the CEO maintain a confidential plan for the timely and efficient transfer of the CEO's responsibilities in the event of an emergency or his sudden departure, incapacitation, or death.

The company ensures that the directors have multiple opportunities to interact with the company's top leadership talent in both formal and informal settings to allow them to most effectively assess the candidates' qualifications and capabilities.

Board Education and Annual Performance Assessment

The company engages in a comprehensive orientation process for incoming new directors. Directors also attend ongoing continuing educational sessions on areas of particular relevance or importance to our company, and we hold periodic mandatory training sessions for the Audit Committee.

Every year the Directors and Corporate Governance Committee conducts a robust assessment of the board's performance, board committee performance, and all board processes, based on input from all directors. We also conduct an annual assessment of each individual director performance and every three years we conduct a detailed review of individual director performance when considering whether to nominate the director to a new three-year term.

Conflicts of Interest and Transactions with Related Persons

Conflicts of Interest

Occasionally a director's business or personal relationships may give rise to an interest that conflicts, or appears to conflict, with the interests of the company. As outlined in the company's corporate governance guidelines, directors must disclose to the company all relationships that could create a conflict or an appearance of a conflict. The board, after consultation with counsel, takes appropriate steps to identify actual or apparent conflicts and ensure that all directors voting on an issue are disinterested with respect to that issue. A director may be excused from board discussions and decisions on an issue related to an actual or apparent conflict, as appropriate.

In addition, a director's relationship with Lilly may give rise to an interest that conflicts, or appears to conflict, with the interests of another company, institution, or other stakeholder. A director must disclose his or her relationship with Lilly in connection with any scientific publication, using the International Committee of Medical Journal Editors (ICMJE) conflict of interest form for this purpose when possible. Each director must disclose his or her service on the board to his or her employer and any other organization with which the director has a relationship of trust and where the relationship with the company is relevant. In addition, directors must follow the internal conflict of interest policies and procedures of each such organization.

Review and Approval of Transactions with Related Persons

The board has adopted a policy and procedures for review, approval, and monitoring of transactions involving the company and related persons (directors and executive officers, their immediate family members, or shareholders of more than 5 percent of the company's outstanding stock). The policy covers any related-person transaction that meets the minimum threshold for disclosure in the proxy statement under the relevant SEC rules (generally, transactions involving amounts exceeding $120,000 in which a related person has a direct or indirect material interest).

Policy:

Related-person transactions must be approved by the board or by a committee of the board consisting solely of independent directors, who will approve the transaction only if the board or committee determines that it is in the best interests of the company. In considering the transaction, the board or committee will consider all relevant factors, including:

- the company's business rationale for entering into the transaction
- the alternatives to entering into a related-person transaction
- whether the transaction is on terms comparable to those available to third parties, or in the case of employment relationships, to employees generally
- the potential for the transaction to lead to an actual or apparent conflict of interest and any safeguards imposed to prevent such actual or apparent conflicts
- the overall fairness of the transaction to the company.

Procedures:

- Management or the affected director or executive officer will bring the matter to the attention of the chairman, the lead independent director, the chair of the Directors and Corporate Governance Committee, or the corporate secretary.
- The chairman and the lead independent director shall jointly determine (or, if either is involved in the transaction, the other shall determine) whether the matter should be considered by the board or by one of its existing committees.
- If a director is involved in the transaction, he or she will be recused from all discussions and decisions about the transaction.
- The transaction must be approved in advance whenever practicable, and if not practicable, must be ratified, if appropriate, as promptly as practicable.
- The board or relevant committee will review the transaction annually to determine whether it continues to be in the company's best interests.

The Directors and Corporate Governance Committee has approved the following employment relationships that are considered related-party transactions under the SEC rules.

Dr. John Bamforth is the spouse of Dr. Susan Mahony, a former executive officer. Dr. Bamforth, who retired as vice president, global marketing, received cash and equity payments totaling $1,220,000, and he participated in the company's benefit programs generally available to U.S. employees while he was an active employee.

Communication with the Board of Directors

You may send written communications to members of the board, including independent directors, addressed to:

Board of Directors
Eli Lilly and Company
c/o Corporate Secretary
Lilly Corporate Center
Indianapolis, IN 46285

Shareholder Engagement on Governance Issues

Each year, the company engages large shareholders and other key constituents to discuss areas of interest or concern related to corporate governance, as well as any specific issues for the coming proxy season. In 2018, we spoke with a number of our largest investors on topics such as eliminating the company's classified board and supermajority voting requirements, board composition and succession planning, the company's executive compensation, environmental and social responsibility, drug pricing, and shareholders' ability to amend the bylaws, among other topics. The overall tone of these conversations was productive and positive, and the investors with whom we spoke were generally supportive of our performance and our overall compensation and governance policies, although a few shareholders communicated differing views on some of our governance practices. This feedback has been discussed with our CEO and chairman, the lead independent director, our Compensation Committee, and our Directors and Corporate Governance Committee, and it was a key input into board discussions on corporate governance topics. As a result of these discussions and its own deliberations, the board decided to put forward the two management proposals described below. We are committed to continuing to engage with our investors to ensure their diverse perspectives on corporate governance issues are thoughtfully considered.

Management Proposals to Eliminate Classified Board and Supermajority Voting Requirements

Each year between 2007 and 2012, and again in 2018, our management put forward proposals to eliminate the company's classified board structure. The proposals did not pass because they failed to receive a "supermajority vote" of 80 percent of the outstanding shares of our common stock, as required in the company's articles of incorporation. In addition, in 2010, 2011, 2012, and 2018, we submitted management proposals to eliminate the supermajority voting requirements themselves. Those proposals also fell short of the required 80 percent vote.

Prior to 2012, these proposals received support ranging from 72 to 77 percent of the outstanding shares. In 2012, the vote in support of these proposals was approximately 63 percent of the outstanding shares, driven in part by a 2012 NYSE rule revision prohibiting brokers from voting their clients' shares on corporate governance matters absent specific instructions from such clients. In 2018, the vote in support was approximately 62 percent of the outstanding shares.

After considering the interests of the company and our shareholders, we have resubmitted management proposals to eliminate the classified board and supermajority voting requirements for consideration at the 2019 annual meeting (see Items 4 and 5). We will continue to engage with our shareholders on these and other topics to ensure that we continue to demonstrate strong corporate governance and accountability to shareholders.

Shareholder Proposals

If a shareholder wishes to have a proposal considered for inclusion in next year's proxy statement, he or she must submit the proposal in writing so that we receive it by November 23, 2019. Proposals should be addressed to the company's corporate secretary, Lilly Corporate Center, Indianapolis, Indiana 46285. In addition, the company's bylaws provide that any shareholder wishing to propose any other business at the 2020 annual meeting must give the company written notice by November 23, 2019, and no earlier than September 24, 2019. That notice must provide certain other information as described in the bylaws. Copies of the bylaws are available online at lilly.com/who-we-are/governance or upon request to the company's corporate secretary.

Shareholder Recommendations and Nominations for Director Candidates

A shareholder who wishes to recommend a director candidate for evaluation should forward the candidate's name and information about the candidate's qualifications to:

Chair of the Directors and Corporate Governance Committee
c/o Corporate Secretary
Lilly Corporate Center
Indianapolis, IN 46285

The candidate must meet the selection criteria described above under "Director Qualifications and Nomination Process - Director Qualifications" and must be willing and expressly interested in serving on the board.

Under Section 1.9 of the company's bylaws, a shareholder who wishes to directly nominate a director candidate at the 2020 annual meeting (i.e., to propose a candidate for election who is not otherwise nominated by the board through the recommendation process described above) must give the company written notice by November 23, 2019, and no earlier than September 24, 2019. The notice should be addressed to the corporate secretary at the address provided above. The notice must contain prescribed information about the candidate and about the shareholder proposing the candidate as described in more detail in Section 1.9 of the bylaws. A copy of the bylaws is available online at lilly.com/who-we-are/governance. The bylaws will also be provided by mail upon request to the corporate secretary.

We have not received any notice regarding shareholder nominations for board candidates or other shareholder business to be presented at the 2019 shareholders' meeting.

Ownership of Company Stock

Common Stock Ownership by Directors and Executive Officers

The following table sets forth the number of shares of company, including company subsidiaries, common stock, beneficially owned by the directors, the named executive officers, and all directors and executive officers as a group, as of February 15, 2019. None of the stock or stock units owned by any of the listed individuals has been pledged as collateral for a loan or other obligation.

Beneficial Owners	Common Stock [1]		
	Shares Owned [2]	Stock Units Distributable Within 60 Days [3]	Stock Units Not Distributable Within 60 Days [4]
Ralph Alvarez	—	—	43,373
Katherine Baicker, Ph.D.	—	—	16,872
Carolyn R Bertozzi, Ph.D.	—	—	3,317
Enrique A. Conterno	138,147	—	55,012
Michael L. Eskew	—	—	39,420
J. Erik Fyrwald	100	—	61,600
Michael J. Harrington	126,745	—	18,765
Jamere Jackson	—	—	4,029
William G. Kaelin, Jr., M.D.	—	—	15,351
Juan R. Luciano	—	—	8,208
Ellen R. Marram	1,000	—	55,200
David A. Ricks	170,367 [5]	—	69,350
Marschall S. Runge, M.D., Ph.D.	—	—	11,061
Kathi P. Seifert	3,533	—	68,135
Jeffrey N. Simmons	179,858 [6]	—	198,091 [6]
Daniel Skovronsky, M.D., Ph.D.	70,818	—	—
Joshua L. Smiley	31,951	—	7,947
Jackson P. Tai	43,709	—	10,538
Karen Walker	—	—	211
All directors and executive officers as a group (28 people):	**1,159,748**	**—**	**739,456**

[1] The sum of the "Shares Owned" and "Stock Units Distributable Within 60 Days" columns represents the shares considered "beneficially owned" for purposes of disclosure in the proxy statement. Unless otherwise indicated in a footnote, each person listed in the table possesses sole voting and sole investment power with respect to their shares. No person listed in the table owns more than 0.02 percent of the outstanding common stock of the company. The directors and executive officers as a group own approximately 0.11 percent of the outstanding common stock of the company.

[2] This column includes the number of shares of common stock held individually as well as the number of 401(k) Plan shares held by the beneficial owners indirectly through the 401(k) Plan.

[3] This column sets forth restricted stock units that vest within 60 days of February 15, 2019.

[4] For the executive officers, this column reflects restricted stock units that will not vest within 60 days of February 15, 2019. For the independent directors, this column includes the number of stock units credited to the directors' accounts in the Lilly Directors' Deferral Plan.

[5] The shares shown for Mr. Ricks include 11,389 shares that are owned by a family foundation for which he is a director. Mr. Ricks has shared voting power and shared investment power with respect to the shares held by the foundation.

[6] The shares shown for Mr. Simmons include 22,000 shares of Elanco common stock and 145,929 Elanco stock units not distributable within 60 days.

Principal Holders of Stock

Based on reports filed with the SEC pursuant to Regulation 13D-G of the Securities Exchange Act of 1934 (the Exchange Act), the only beneficial owners of more than 5 percent of the outstanding shares of the company's common stock, as of December 31, 2018, are the shareholders listed below:

Name and Address	Number of Shares Beneficially Owned	Percent of Class
Lilly Endowment Inc. (the Endowment) 2801 North Meridian Street Indianapolis, IN 46208	118,015,304	11.1%
The Vanguard Group 100 Vanguard Blvd. Malvern, PA 19355	75,658,219	7.1%
BlackRock, Inc. 55 East 52nd Street New York, NY 10055	68,956,519	6.5%

The Endowment has sole voting and sole dispositive power with respect to all of its shares. The Board of Directors of the Endowment is composed of N. Clay Robbins, chairman, president & CEO; Mary K. Lisher; William G. Enright; Daniel P. Carmichael; Charles E. Golden; Eli Lilly II; David N. Shane; Craig Dykstra; Jennett M. Hill; and John C. Lechleiter.

The Vanguard Group provides investment management services for various clients. It has sole voting power with respect to 1,145,235 of its shares and sole dispositive power with respect to 74,302,105 of its shares.

BlackRock, Inc. provides investment management services for various clients. It has sole voting power with respect to 60,041,509 of its shares and sole dispositive power with respect to all of its shares.

Compensation

Item 2. Advisory Vote on Compensation Paid to Named Executive Officers

Section 14A of the Securities Exchange Act of 1934 provides the company's shareholders with the opportunity to approve, on an advisory basis, the compensation of the company's named executive officers as disclosed in the proxy statement. Our compensation philosophy is designed to attract, engage, and retain highly talented individuals and motivate them to create long-term shareholder value by achieving top-tier corporate performance while embracing the company's values of integrity, excellence, and respect for people.

The Compensation Committee and the Board of Directors believe that our executive compensation aligns well with our philosophy and with corporate performance. Executive compensation is an important matter for our shareholders. We routinely review our compensation practices and engage in ongoing dialogue with our shareholders to ensure our practices are aligned with stakeholder interests and reflect best practices.

We request shareholder approval, on an advisory basis, of the compensation of the company's named executive officers as disclosed in this proxy statement. As an advisory vote, this proposal is not binding on the company. However, the Compensation Committee values input from shareholders and will consider the outcome of the vote when making future executive compensation decisions.

Board Recommendation on Item 2

The board recommends that you vote FOR the approval, on an advisory basis, of the compensation paid to the named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis (CD&A), the compensation tables, and related narratives provided below in this proxy statement.

Compensation Discussion and Analysis

This CD&A describes our executive compensation philosophy, the Compensation Committee's process for setting executive compensation, the elements of our compensation program, the factors the Compensation Committee considered when setting executive compensation for 2018, and how the company's results affected incentive payouts for 2018 performance. This CD&A provides compensation information for the CEO, chief financial officer, and the three other most highly compensated executive officers who were serving as executive officers on December 31, 2018. It also provides compensation information for one former executive officer, Jeffrey Simmons. On September 20, 2018, Lilly launched an initial public offering of Elanco Animal Health, Inc. ("Elanco"). At that time, Mr. Simmons ceased being an executive officer of Lilly and became the CEO of Elanco.

Our Philosophy on Compensation

At Lilly, our purpose is to unite caring with discovery to create medicines that make life better for people around the world. In order to do this, we must attract, engage, and retain highly talented individuals who are committed to our core values of integrity, excellence, and respect for people. Our compensation programs are designed to help us achieve these goals while balancing the long-term interests of our shareholders and customers.

Objectives

Our compensation and benefits programs are based on the following objectives:

- **Reflect individual and company performance:** We reinforce a high-performance culture by linking pay with individual and company performance. As employees assume greater responsibilities, the proportion of total compensation based on company performance and shareholder returns increases. We perform annual reviews to ensure our programs provide an incentive to deliver long-term, sustainable business results while discouraging excessive risk-taking or other adverse behaviors.

- **Attract and retain talented employees:** Compensation opportunity should be market competitive and reflect the level of job impact and responsibilities. Retention of talent is an important factor in the design of our compensation and benefit programs.

- **Implement broad-based programs:** While the amount of compensation paid to employees varies, the overall structure of our compensation and benefit programs is broadly similar across the organization to encourage and reward all employees who contribute to our success.

- **Consider shareholder input:** Management and the Compensation Committee consider the results of our annual say-on-pay vote and other sources of shareholder feedback when designing executive compensation and benefit programs.

Say-on-Pay Results for 2018

At last year's annual meeting, more than 97 percent of the shares cast voted in favor of the company's say-on-pay proposal on executive compensation. Management and the Compensation Committee view this vote as supportive of the company's overall approach toward executive compensation.

Compensation Committee's Processes and Analyses

Setting Compensation

The Compensation Committee considers individual performance assessments, compensation recommendations from the CEO, company performance, peer group data, input from its compensation consultant, and its own judgment when determining compensation for its executive officers.

- **Individual performance:** Generally, the independent directors, under the direction of the lead independent director, meet with the CEO at the beginning of each year to agree upon the CEO's performance objectives. At the end of the year, the independent directors meet to assess the CEO's achievement of those objectives along with other factors, ethics, and integrity. This evaluation is used in setting the CEO's compensation for the next year.

The Compensation Committee receives individual performance assessments and compensation recommendations from the CEO for each of the remaining executive officers. Each executive officer's performance assessment is based on the achievement of objectives established between the executive officer and the CEO at the start of the year, as well as other factors, including the demonstration of Lilly values and leadership behaviors. The Compensation Committee considers these inputs, its knowledge of and interactions with each executive officer, and its judgement to develop a final individual performance assessment. For new executive officers, compensation is set by the Compensation Committee at the time of promotion or offer.

- **Company performance:** Lilly performance and, with respect to Mr. Simmons, Elanco performance is considered in two ways:
  - Overall performance for the prior year based on a variety of metrics, which is a factor in establishing target compensation for the coming year.
  - Specific performance goals are established at the beginning of each performance year to determine payouts under cash and equity incentive programs.

- **Peer group analysis:** The Compensation Committee uses data from the peer group described below as a market check for compensation decisions, but does not use this data as the sole basis for its compensation targets and does not target a specific position within that range of market data.

- **Input from an independent compensation consultant concerning executive pay:** Lilly's Compensation Committee considers the advice of its independent compensation consultant, Frederic W. Cook & Co., Inc., when setting executive officer compensation.

- **Elanco Animal Health:** Prior to the Elanco initial public offering, the Compensation Committee reviewed and approved how the already granted bonus and equity elements of Mr. Simmons' Lilly compensation would transition to Elanco. Lilly management, working with an independent consultant, proposed an Elanco compensation structure for Mr. Simmons to the Elanco board of directors, including base salary, target bonus, target equity compensation, and a one-time founders' award composed of stock options and restricted stock units (RSUs). The Elanco board of directors reviewed and approved the recommended compensation.

Competitive Pay Assessment

Lilly's peer group is comprised of companies that directly compete with Lilly, use a similar business model, and employ people with the unique skills required to operate an established biopharmaceutical company. Lilly's Compensation Committee selects a peer group whose median market cap and revenue are broadly similar to Lilly's. The Compensation Committee reviews the peer group at least every three years. Lilly's Compensation Committee established the following peer group in June 2015 for purposes of assessing competitive pay:

Abbvie	Celgene	Merck
Amgen	Gilead	Novartis
AstraZeneca	GlaxoSmithKline	Pfizer
Baxter	Hoffman-LaRoche	Sanofi-Aventis
Biogen	Johnson & Johnson	Shire
Bristol-Myers Squibb	Medtronic	

At the time of the review in June 2015, all peer companies were no greater than three times our revenue or market cap except Johnson & Johnson, Novartis, and Pfizer. The Compensation Committee included these three companies despite their size because they compete directly with Lilly, have similar business models, and seek to hire from the same pool of management and scientific talent.

When determining pay levels for target compensation, the Compensation Committee considers an analysis of peer group pay for each executive officer position (except CEO) along with internal factors such as the performance and experience of each executive officer. The independent compensation consultant for the Compensation Committee provides a similar analysis when recommending pay levels for the CEO. The CEO analysis includes a comparison of our CEO actual total direct compensation in the prior year to company performance on an absolute basis and on a

relative basis to the peer group. The analysis also includes a comparison of current target total direct compensation for our CEO to the most recently available market data on CEO target total direct compensation for our peer companies. In the aggregate, the company's target total compensation to named executive officers was in the middle range of the peer group at the end of 2018.

Components of Our Compensation

Our executive compensation is primarily composed of three components:

- base salary
- annual cash bonus, which is generally calculated based on company performance relative to internal targets for revenue, earnings per share (EPS), and the progress of our pipeline
- two different forms of equity incentives:
  - performance awards, which are performance-based equity awards that vest over three years and have a performance component measuring the company's two-year growth in EPS relative to the expected peer group growth followed by a 13-month service-vesting period
  - shareholder value awards, which are performance-based equity awards that pay out based on absolute company stock price growth and total shareholder return (TSR) relative to peers, both measured over a three-year period, followed by a one-year holding period.

Executives also receive a company benefits package, described below under "Other Compensation Practices and Information - Employee Benefits."

When Lilly divests its remaining interest in Elanco, Mr. Simmons' unvested Lilly equity awards will terminate in accordance with their terms for no consideration. Prior to the Elanco initial public offering, the Compensation Committee reviewed and approved how the bonus and equity elements of Mr. Simmons' 2018 Lilly compensation would transition to Elanco. Lilly management, working with an independent consultant, proposed a compensation structure for 2018 for Mr. Simmons to the Elanco board of directors, including base salary, target bonus, target equity compensation, and a one-time founders' award composed of stock options and restricted stock units. The Elanco board of directors reviewed and approved the recommended compensation, as described in more detail below. It is anticipated that the Elanco compensation committee will authorize the issuance of Elanco equity awards of a value and duration similar to Mr. Simmons' unvested Lilly equity awards, subject to the requirements of applicable law and terms of applicable equity incentive plans and award agreements.

Adjustments to Reported Financial Results

The Compensation Committee has authority to adjust the company's reported revenue and EPS upon which incentive compensation payouts are determined to eliminate the distorting effect of unusual income or expense items. These items may affect year-over-year growth percentages or comparability with peer companies. The Compensation Committee considers the adjustments approved by the Audit Committee for reporting non-GAAP EPS and other adjustments, based on guidelines approved by the Compensation Committee prior to the performance period. The Compensation Committee considers adjustments on a quarterly basis and may adjust payouts to eliminate the benefit of share repurchases, large swings in foreign exchange rates, or the impact of price adjustments significantly above the business plan. For 2018 compensation, the Compensation Committee eliminated the benefit of share repurchases in excess of a pre-established collar from the bonus payout. The Compensation Committee has also removed the positive impact of tax reform from our 2017-2018 performance award results to avoid artificial uplift that was not considered at the time goals were established. Further details on the adjustments for 2018 and the rationale for making these adjustments are set forth in Appendix A, "Summary of Adjustments Related to the Annual Cash Bonus and Performance Award." For ease of reference, throughout the CD&A and the other compensation disclosures, we refer simply to "revenue" and "EPS" but we encourage you to review the information in Appendix A to understand the adjustments from reported revenue and EPS that were approved.

The Compensation Committee also has general authority to apply downward (but not upward) discretion to bonus, performance award, and shareholder value award payouts for individual executive officers.

1. Base Salary

In setting salaries, Lilly seeks to retain, motivate, and reward successful performers while maintaining affordability within the company's business plan. Base salaries are reviewed and established annually and may be adjusted upon

promotion, following a change in job responsibilities, or to maintain market competitiveness. Salaries are based on each person's level of contribution, responsibility, expertise, and competitiveness and are compared annually with peer group data.

Base salary increases for 2018, if any, were established based upon a corporate budget for salary increases, which is set considering company performance over the prior year, expected company performance for the following year, and general external trends.

2. Annual Cash Bonus

The Eli Lilly and Company Bonus Plan (Lilly bonus plan) is designed to reward the achievement of the company's annual financial plans and innovation objectives. The named executive officers, except Mr. Simmons, participated in the Lilly bonus plan during 2018. Mr. Simmons participated in the Elanco Corporate Bonus Plan (Elanco bonus plan).

Lilly Bonus Plan

The Compensation Committee sets performance goals and individual bonus targets for the Lilly bonus plan at the beginning of each year. The bonus is based on three areas of company performance measured relative to internal targets: revenue, EPS, and innovation progress. The annual cash bonus payout is calculated as follows:

(bonus plan multiple) x (individual bonus target) x (base salary earnings) = payout

Actual payouts can range from 0 to 200 percent of an individual's bonus target. The Compensation Committee references the annual operating plan to establish performance targets and to assess the relative weighting for each objective. The 2018 weightings remain unchanged from the prior year:

Lilly Goals	Weighting
Revenue performance	25%
EPS performance	50%
Pipeline progress	25%

Based on this weighting, the company bonus multiple is calculated as follows:

Bonus Plan Multiple

(0.25 x revenue multiple) + (0.50 x EPS multiple) + (0.25 x pipeline multiple)

Executive officer bonuses are also subject to the terms of the Executive Officer Incentive Plan (EOIP). Under the EOIP, the maximum annual cash bonus allowable is calculated based on non-GAAP net income (generally described in "Adjustments to Reported Results" in Appendix A) for the year. For Mr. Ricks, the maximum amount for 2018 is 0.3 percent of non-GAAP net income. For other executive officers except Dr. Skovronsky, the maximum amount is 0.15 percent of non-GAAP net income. Dr. Skovronsky's maximum amount is 0.15 percent of non-GAAP net income prorated for the time served as a Lilly executive officer. In addition, none of the executive officers receives an annual cash bonus payment unless the company has positive non-GAAP net income for the year.

Under the EOIP, the Compensation Committee has the discretion to reduce (but not to increase) the amount to be paid. In exercising this discretion, the Compensation Committee intends to award the lesser of (i) the bonus the executive officer would have received under the Lilly bonus plan, or (ii) the EOIP maximum payout.

Elanco Bonus Plan

Mr. Simmons' bonus was aligned with the Elanco bonus plan for all of 2018, which is designed to reward the achievement of Elanco's financial goals, innovation objectives, and contributions to Lilly's overall financial success for the year. Prior to the Elanco initial public offering, the Elanco bonus plan was approved by Lilly management and Mr. Simmons' EOIP participation and payout alignment with the Elanco bonus plan was approved by the Compensation Committee. The compensation committee of Elanco's board of directors approved the 2018 Elanco bonus plan of which Mr. Simmons is a participant.

The annual Elanco bonus plan payout is calculated as follows:

(Elanco bonus plan multiple) x (individual bonus target) x (base salary earnings) = payout

The bonus is based on four areas of Elanco and Lilly performance measured relative to internal targets: Elanco revenue, Elanco operating margin, Elanco innovation progress, and Lilly corporate objectives as measured under the Lilly bonus plan. The weighting for the Elanco bonus plan objectives for 2018 were:

Elanco Goals	Weighting
Elanco Revenue performance	25%
Elanco Operating Margin performance	25%
Elanco Innovation progress	25%
Lilly Bonus Plan Multiple	25%

Based on this weighting, the Elanco bonus plan multiple is calculated as follows:

Elanco Bonus Plan Multiple

(0.25 x revenue multiple) + (0.25 x operating margin multiple) + (0.25 x innovation multiple) + (0.25 x Lilly bonus plan multiple)

For the time period from January 1 through September 20, 2018, Mr. Simmons will receive the lesser of (i) the bonus he would have received under the Elanco bonus plan or (ii) an EOIP maximum payout prorated for service through September 20, 2018. For the period from September 20 through December 31, 2018, Mr. Simmons will receive a prorated bonus under the Elanco bonus plan as approved by the compensation committee of Elanco's board of directors.

3. Equity Incentives

The company grants two types of equity incentives to executives and certain other employees: performance awards and shareholder value awards are designed to focus its leaders on multi-year operational performance relative to peer companies. Shareholder value awards are intended to align earned compensation with long-term growth in shareholder value and relative TSR performance within our industry. The Compensation Committee has the discretion to adjust any payout from an equity award granted to an executive officer downward (but not upward) from the amount yielded by the applicable formula.

Performance Awards

Performance awards vest over three years. Payouts are based on achieving EPS growth targets over a two-year performance period, followed by an additional 13-month service-vesting period for executive officers, during which the award is held in the form of restricted stock units. The growth-rate targets are set relative to the median expected EPS growth for our peer group over the same performance period. These awards do not accumulate dividends during the two-year performance period, but they do accumulate dividend equivalent units during the service-vesting period.

The Compensation Committee believes EPS growth is an effective measure of operational performance because it is closely linked to shareholder value, is broadly communicated to the public, is easily understood by Lilly employees, and allows for objective comparisons to performance of Lilly's peer group. Consistent with its compensation objectives, Lilly company performance exceeding the expected peer group median results in above-target payouts, while Lilly company performance lagging the expected peer group median results in below-target payouts. Possible payouts range from 0 percent to 150 percent of the target, depending on Lilly EPS growth over the performance period.

The measure of EPS used in the performance award program differs from the measure used in the Lilly bonus plan in two ways. First, the EPS goal in the Lilly bonus plan is set with reference to internal goals that align to our annual operating plan for the year, while the EPS goal in the performance award program is set based on the expected

growth rates of our peer group. Second, the Lilly bonus plan measures EPS over a one-year period, while the performance award program measures EPS over a two-year period. In a given year, the Lilly bonus plan may pay above target while the performance award pays below target (or vice versa).

Because Mr. Smiley and Dr. Skovronsky were not executive officers when their 2017-2018 performance awards were granted, those awards were not subject to the additional 13-month service-vesting period and vested in full as of December 31, 2018.

Shareholder Value Awards

Shareholder value awards are earned based on Lilly's share price and relative TSR performance. Shareholder value awards pay above target if Lilly's stock outperforms an expected rate of return and below target if Lilly's stock underperforms that expected rate of return. The expected rate of return is based on the three-year TSR that a reasonable investor would consider appropriate when investing in a basket of large-cap U.S. companies, as determined by the Compensation Committee. The minimum target price to achieve is calculated by multiplying the starting share price of Lilly's stock by the three-year compounded expected rate of return less Lilly's dividend yield. Shareholder value awards have a three-year performance period, and any shares paid are subject to a one-year holding requirement. No dividends are accrued during the performance period. Executive officers receive no payout if Lilly's TSR for the three-year period is zero or negative. Possible payouts are based on share price growth and range from 0 to 150 percent of the target.

A modifier based on Lilly's three-year cumulative TSR relative to our peer companies' median TSR performance is applied to executive officer payouts. The committee added the relative TSR modifier to the shareholder value award program to align executive officers' rewards with shareholder experience while also encouraging strong performance within the industry. If Lilly's TSR is above the median of our peers, the payout is increased by 1 percent for every percentage point that Lilly's TSR exceeds the median (up to a maximum of 20 percent). Likewise, if Lilly's TSR is below the median, the payout will be reduced by up to a maximum of 20 percent.

Because Mr. Smiley and Dr. Skovronsky were not executive officers at the time of the grant, their 2016-2018 shareholder value awards were not subject to the relative TSR modifier.

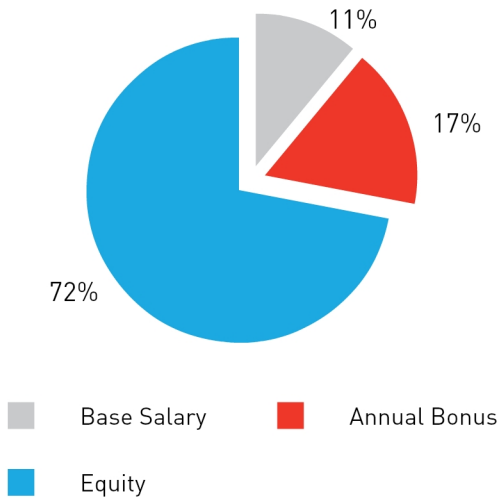
Other Equity Awards

In addition to his performance award and shareholder value award grants in 2018, Mr. Simmons received a founders' award shortly after Elanco's initial public offering which was approved by the compensation committee of the Elanco board of directors. This award is composed of 50 percent Elanco stock options and 50 percent Elanco time-based restricted stock units, and is intended to tie a significant portion of Mr. Simmons' compensation to Elanco's performance and the interests of Elanco shareholders. The Elanco stock options will vest over three years, at which point Mr. Simmons will have seven additional years to exercise. The Elanco restricted stock units will vest over three years.

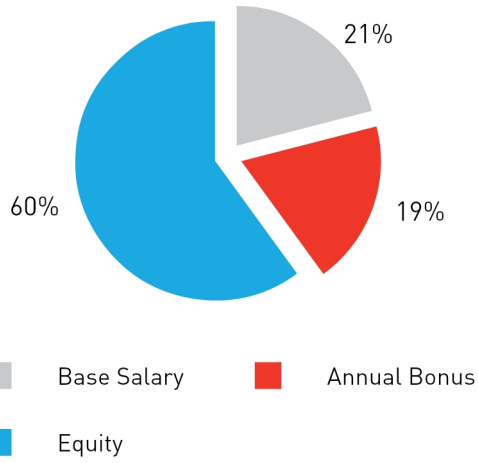
Pay for Performance

The mix of compensation for our named executive officers reflects Lilly's desire to link executive compensation with company performance. As reflected in the charts below, a substantial portion of the target pay for executive officers is performance-based. The annual cash bonus and equity payouts are contingent upon company performance, with the bonus factoring in performance over a one-year period, and equity compensation factoring in performance over two- and three-year periods (as described above). The charts below depict the annualized mix of target compensation for Lilly's CEO and the average for the other named executive officers, excluding Mr. Simmons.

CEO 2018 Target Compensation Mix



Other Named Executive Officers 2018 Target Compensation Mix (avg)*



***** The pay mix for the other named executive officers would have been 22% base salary, 20% bonus, and 58% equity with Mr. Simmons' annualized base pay, blended bonus, and annual equity award. The mix does not include his one-time founders' award.

2018 Target Total Compensation

Performance Review Process

In setting target compensation for the named executive officers in 2018, the Compensation Committee considered individual contributions, Lilly and Elanco (as appropriate) performance during 2017, internal pay equity, peer group data, and input from the CEO to establish executive officer compensation for 2018. Dr. Skovronsky's pay was adjusted on June 1, 2018, when he became senior vice president and chief scientific officer. Mr. Simmons' pay was adjusted during the annual review based on 2017 performance and further adjusted by the Elanco board of directors when he was appointed as the president, CEO, and director of Elanco Animal Health, Inc.

2017 Individual Named Executive Officer Performance

A summary of the Compensation Committee's review of individual named executive officer performances is provided below:

David Ricks, Chairman, President and Chief Executive Officer: In accordance with the company's Corporate Governance Guidelines, the lead independent director conducted an assessment of Mr. Ricks' performance during his first year as CEO, which was discussed by the independent directors during an executive session of the board. The independent directors believe the company largely met or exceeded its combined financial and strategic goals for 2017 under Mr. Ricks' leadership. Mr. Ricks and his team:

- delivered on the company's financial commitments
- continued implementation of next generation research and development leading to the launch of Verzenio in the United States, Olumiant in Europe and nine other product approvals around the world which deliver value to patients and provide continued future growth for the company. Numerous potential medicines entered Phase 1 and Phase 2 clinical development from both internal research efforts and external sources
- drove a cross-company productivity agenda resulting in savings that funded increased investment in research and development and allowed above-plan capital return to shareholders
- announced the strategic review of the Elanco animal health business
- implemented a strategy that improved diversity and inclusion across the company, increased the representation of women and minorities in management, and demonstrated the company's commitment to pay equity

- progressed Lilly 30x30, a program to improve access to quality health care in resource-limited settings for 30 million people on an annual basis by 2030
- improved certain environmental performance areas, such as greenhouse gas emissions, energy efficiency, waste efficiency, and wastewater.

In addition, the company appointed several new members to the leadership team while improving the team's diversity profile, and was named one of the world's most ethical companies by Ethisphere Institute.

Joshua Smiley, Senior Vice President and Chief Financial Officer: Mr. Smiley became senior vice president and CFO on January 1, 2018. Prior to becoming CFO, Mr. Smiley led the company's treasury function throughout 2017, where he played a critical role in:

- development and implementation of the company's productivity agenda during the 2017 strategic plan and 2018 operating plan process
- leadership of the capital allocation process allowing for investment in several in-licensing deals and increased funding for the advancement of new medicines
- co-leadership of the Elanco strategic review ultimately leading to the Elanco initial public offering in 2018
- engagement with legislation leading to U.S. tax reform
- establishment of an excellent rapport with the investment community
- leadership and executive sponsorship of Lilly's Indian Network, an employee resource group focused on supporting and advancing people of Indian heritage in the company.

Michael Harrington, Senior Vice President and General Counsel: Mr. Harrington was effective and influential in his role as general counsel in 2017, and he was a productive partner with the executive team. In 2017, he:

- defended several key patents, including patents for Alimta in the United States, Europe, and Japan
- developed and implemented legal strategies across the company
- worked to ensure the company has robust compliance around the world
- led a company initiative to increase protection of Lilly's intellectual property assets and improve cyber security
- led and served as an executive sponsor of the company's PRIDE organization, an employee resource group focused on supporting and advancing lesbian, gay, bisexual, and transgender employees.

Enrique Conterno, Senior Vice President and President, Lilly Diabetes and President, Lilly USA: Mr. Conterno demonstrated strong leadership of Lilly Diabetes and across the company. In 2017, he:

- drove volume growth within the diabetes business unit, primarily from newer products
- championed the development of new insulin delivery devices incorporating digital technology to provide patients with better diabetes control
- led the company's U.S. commercial business, which is the company's largest market, as well as the company's human pharmaceutical commercial operations in China, Japan, and Canada
- served as executive sponsor of WILL (Women's Initiative for Leading at Lilly), the company's employee resource group focused on supporting and advancing the development of women across the company.

Daniel Skovronsky, M.D., Ph.D., Senior Vice President and Chief Scientific Officer: Dr. Skovronsky became senior vice president and chief scientific officer on June 1, 2018. Prior to this promotion, Dr. Skovronsky was senior vice president for product development. In 2017, Dr. Skovronsky led efforts including:

- transformation of the company's drug research and drug development function by creating program teams that act as small biotech companies, modifying traditional governance structures to enable agile decision making, and creating boards that oversee each program
- strategies that significantly reduced the time drug candidates spend in development, leading to earlier product launch
- sponsorship of an increase in Lilly's external research efforts, including expansion of key research hubs in Boston and San Francisco
- leadership and executive sponsorship of Lilly's Japanese Network, an employee resource group focused on supporting and advancing people of Japanese heritage in the company.

Jeffrey Simmons, President, Chief Executive Officer and Director Elanco Animal Health, Inc.: Mr. Simmons became the President and CEO of Elanco in September 2018, after leading Lilly's animal health business since 2008. During his tenure Elanco grew from a small business to one with more than $3 billion in annual revenue. This growth came from innovative new products providing strong organic growth and successfully integrating numerous acquired businesses, the largest being Novartis's animal health business. Mr. Simmons' key accomplishments in 2017 included:

- completion of several business development transactions, including the integration of Boehringer Ingelheim's Vetmedica business into Elanco's business operations
- implementation of a broad productivity agenda that increased margins and operating income
- co-leadership of the Elanco strategic review, ultimately leading to the Elanco initial public offering in 2018, while ensuring strong operational performance of the business
- launch of new products for food animals and companion animals that are expected to drive future growth
- improvements in operational performance across the Elanco business, including improving ethics and compliance processes.

2018 Target Compensation

The information below reflects total compensation at target for named executive officers for 2018. The actual compensation received in 2018 is summarized below in "2018 Compensation Results."

Rationale for Changes to Named Executive Officer Target Compensation

The Compensation Committee established 2018 target total compensation opportunities for each named executive officer based on the named executive officer's 2017 performance, internal relativity, and peer group data. For Mr. Smiley and Dr. Skovronsky, the Compensation Committee established initial pay based on market data and internal relativity.

Base Salary

The following table shows the approved annualized salary effective at the beginning of March for each named executive officer, except for Mr. Smiley, Dr. Skovronsky, and Mr. Simmons. Mr. Smiley's salary is reflected as of January 1, 2018, when he became senior vice president and chief financial officer. Dr. Skovronsky's salary is reflected as of June 1, 2018, when he became senior vice president and chief scientific officer. Mr. Simmons' annual base salary was $688,118 from January 1, 2018 through September 19, 2018. When Mr. Simmons assumed his new responsibilities as the president, CEO and director of Elanco on September 20, 2018, his annual base salary was adjusted to $1,000,000 by the Elanco board of directors. Mr. Conterno's base salary increase reflects his additional responsibility as head of Lilly USA and the importance of his leadership of the diabetes business unit and across the company. Each named executive officer's actual base salary earned during 2018 is reflected in the Summary Compensation Table in the "Executive Compensation" section of this proxy.

Name	2017 Annual Base Salary	2018 Annual Base Salary	Increase (effective March 1, 2018)
Mr. Ricks	1,400,000	$1,400,000	-
Mr. Smiley	N/A[1]	$875,000	-
Mr. Harrington	$860,300	$860,300	-
Mr. Conterno	$768,100	$800,000	4%
Dr. Skovronsky	N/A[1]	$900,000	-

[1] Mr. Smiley and Dr. Skovronsky became executive officers in 2018.

Annual Cash Bonus Targets

Based on a review of internal relativity, peer group data, and individual performance, the Compensation Committee decided to retain the same bonus targets for Mr. Ricks, Mr. Harrington, and Mr. Conterno as in 2017. Mr. Simmons' bonus target was 80% from January 1, 2018 through September 19, 2018. When Mr. Simmons assumed his new responsibilities as the president, CEO, and director of Elanco on September 20, 2018, his bonus target was adjusted to 120% by the Elanco board of directors. Bonus targets are shown in the table below as a percentage of each named executive officer's base salary earnings:

Name	2017 Bonus Target	2018 Bonus Target
Mr. Ricks	150%	150%
Mr. Smiley	N/A[1]	95%
Mr. Harrington	80%	80%
Mr. Conterno	80%	80%
Dr. Skovronsky	N/A[1]	95%

[1] Mr. Smiley and Dr. Skovronsky became executive officers in 2018.

Equity Incentives - Target Grant Values

For 2018 equity grants, the Compensation Committee set the total target values for named executive officers based on peer group data, individual performance, and internal relativity. Named executive officers, except Dr. Skovronsky, have 60 percent of their equity target allocated to shareholder value awards and 40 percent to performance awards. Because Dr. Skovronsky was not an executive officer at the time of annual grants, 50 percent of his equity target was allocated to shareholder value awards and 50 percent was allocated to performance awards. Total target values for the 2017 and 2018 equity grants to the named executive officers were as follows:

Name	2017 Annual Equity Grant	2018 Annual Equity Grant[2]
Mr. Ricks	$8,500,000	$9,000,000
Mr. Smiley	N/A[1]	$2,300,000
Mr. Harrington	$2,300,000	$2,550,000
Mr. Conterno	$2,500,000	$2,600,000
Dr. Skovronsky	N/A[1]	$2,300,000
Mr. Simmons*	N/A	$1,200,000

[1] Mr. Smiley and Dr. Skovronsky became executive officers in 2018.

* Mr. Simmons' 2018 annual equity grant from Lilly was $1,200,000; this amount excludes the founders' awards Mr. Simmons received as part of the Elanco initial public offering as described in the "Grants of Plan-Based Awards During 2018" table below. Mr. Simmons' annual equity grants from Lilly will terminate in accordance with their terms when Lilly divests its remaining interest in Elanco.

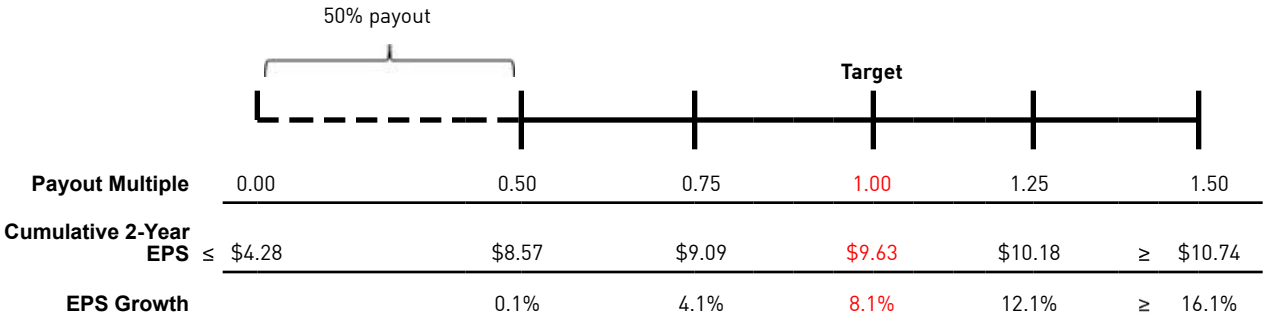
Performance Goals for 2018 Incentive Programs

Annual Cash Bonus Goals

The Compensation Committee established the company performance targets using the company's 2018 corporate operating plan, which was approved by the Board of Directors in 2017. These targets are described below under "2018 Compensation Results." Management established the Elanco bonus plan performance targets, and Mr. Simmons' bonus plan alignment, which was approved by the Compensation Committee in 2017 and later approved by the Elanco board of directors.

2018-2020 Performance Award

In February 2018, the Compensation Committee established a compounded two-year EPS growth target of 8.1 percent per year based on investment analysts' EPS growth estimates for our peer group companies at that time. Payouts for the 2018-2020 performance award could range from 0 to 150 percent of target, as shown below:

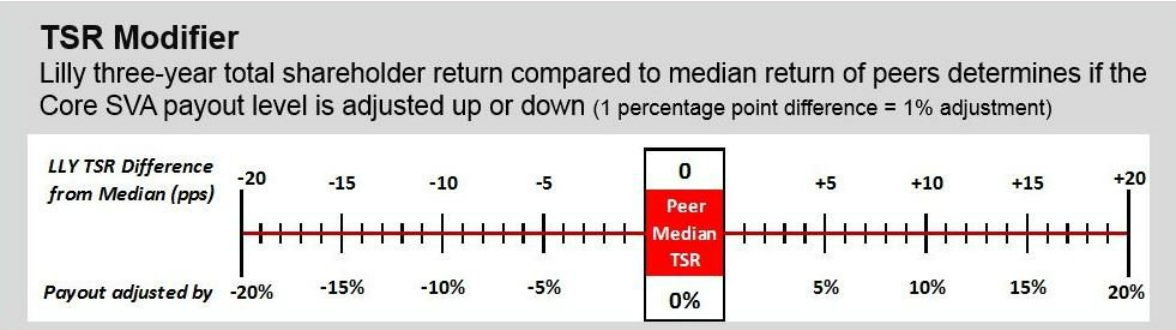


2018-2020 Shareholder Value Award

For purposes of establishing the stock price target for the shareholder value awards, the starting price was $84.70 per share, the average closing stock price for all trading days in November and December 2017. The target share price was established using the expected annual rate of return for large-cap companies (8 percent), less an assumed Lilly dividend yield of 2.66 percent. To determine payout, the ending price will be the average closing price of company stock for all trading days in November and December 2020. The award is designed to deliver no payout to executive officers if the shareholder return (including projected dividends) is zero or negative. Possible payouts based on share price ranges are illustrated in the grid below (and apply to all named executive officers other than Dr. Skovronsky).

Ending Stock Price	Less than $77.38	$77.38 - $88.19	$88.20 - $99.01	$99.02-$109.83	$109.84 - $120.65	Greater than $120.65
Compounded Annual Share Price Growth Rate (excluding dividends)	Less than (3.0%)	(3.0%)-1.4%	1.4%-5.3%	5.3%-9.0%	9.1% -12.5%	Greater than 12.5%
Percent of Target	0%	50%	75%	100%	125%	150%

Executive officer awards are subject to a relative TSR modifier, as shown in the grid below. The number of shares to be paid will increase or decrease by 1 percent for every percentage point Lilly's three-year TSR deviates from our peer group's median three-year TSR, capped at 20 percent (applies to all named executive officers other than Dr. Skovronsky).



Because Dr. Skovronsky was not an executive officer when his award was granted, his award does not include the TSR modifier described above, and has a lower threshold stock price hurdle. Otherwise, the payout grid for his shareholder value award, as illustrated below is the same as for the other named executive officers.

Ending Stock Price	Less than $42.35	$42.35 - $88.19	$88.20 - $99.01	$99.02-$109.83	$109.84 - $120.65	Greater than $120.65
Compounded Annual Share Price Growth Rate (excluding dividends)	Less than (20.6%)	(20.6%)-1.4%	1.4%-5.3%	5.3%-9.0%	9.1% -12.5%	Greater than 12.5%
Percent of Target	0%	50%	75%	100%	125%	150%

2018 Compensation Results

The information in this section reflects the amounts paid to named executive officers under the Lilly bonus plan or the Elanco bonus plan, as applicable, and for equity awards granted in prior years for which the relevant performance period ended in 2018.

Lilly Performance

In 2018 we exceeded both our annual revenue and EPS targets. We also made significant progress on our pipeline, meeting or exceeding all of our pipeline targets. Key pipeline highlights include first regulatory approval for Emgality and eleven other new approvals, indications, or line extensions.

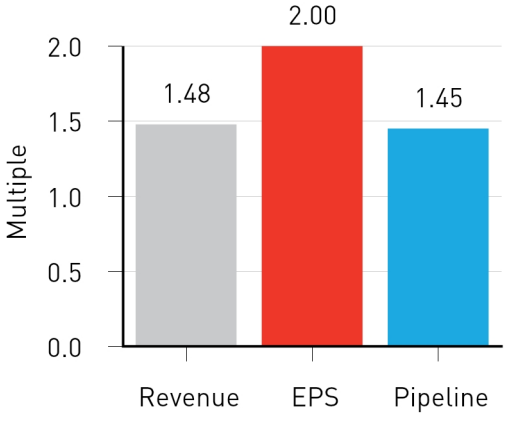
Lilly Bonus Plan

The company's performance compared to targets for revenue, EPS, and pipeline progress, as well as the resulting Lilly bonus multiple, is illustrated below. In 2018, the non-GAAP EPS for Lilly Bonus was adjusted by $(0.06) to eliminate the benefit of share repurchases in excess of a pre-established collar.

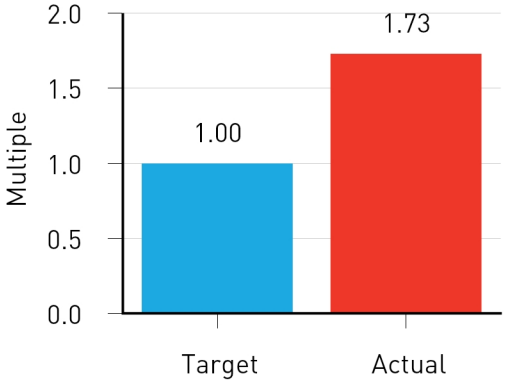
	2018 Corporate Target	Adjusted Results*	Multiple
Revenue	$23.457 billion	$24.556 billion	1.48
EPS	$4.91	$5.49	2.00
Pipeline score	3.00	3.9	1.45
Lilly Bonus Multiple			1.73

*See Appendix A, "Summary of Adjustments Related to the Annual Cash Bonus and Performance Award."

2018 Lilly Bonus Performance Multiples



Lilly Resulting Bonus Payout Multiple



The Science and Technology Committee's assessment of the company's progress toward achieving product pipeline goals is detailed below:

Activity	Objective	Achievement
Approvals	1-2 new drug first approval 9 other approvals	1 new drug first approvals 10 other approvals
Potential new drug Phase 3 starts	2	3
Potential new drug Phase 1 starts	9-11	11
Potential new indication or line extension Phase 3 starts	3	5
Plan Boldly	Meet industry benchmark for speed of development	Plans exceeded industry benchmark
Deliver to Launch	Meet planned project timelines	Delivered much faster than planned timelines
Qualitative Assessment	Chief scientific officer's assessment of performance against strategic objectives	

Based on the recommendation of the Science and Technology Committee, the Compensation Committee approved a pipeline score of 3.90, resulting in a pipeline multiple of 1.45.

When combined, the revenue, EPS, and pipeline multiples yielded a bonus multiple of 1.73.

(0.25 x 1.48) + (0.50 x 2.00) + (0.25 x 1.45) = 1.73 bonus multiple

The 2018 bonuses paid to the applicable named executive officers under the Lilly bonus plan were as follows:

Name	2018 Bonus ($)
Mr. Ricks	$3,633,000
Mr. Smiley	$1,438,063
Mr. Harrington	$1,190,655
Mr. Conterno	$1,099,842
Dr. Skovronsky	$1,376,431

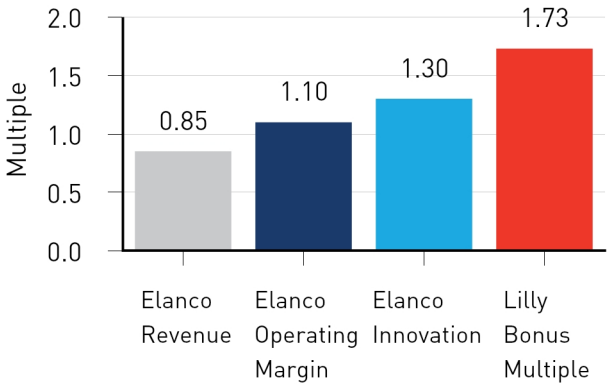
Elanco Bonus Plan

Elanco's performance compared to targets for Elanco revenue, Elanco operating margin, Elanco innovation progress, and the Lilly bonus multiple, as well as the resulting Elanco bonus multiple, is illustrated below:

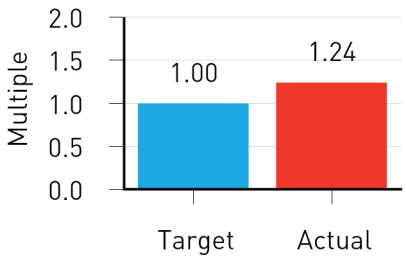
	2018 Elanco Target	2018 Elanco Results	Multiple
Elanco Revenue	$3.171 billion	$3.143 billion	0.85
Elanco Operating Margin	20.0%	20.2%	1.10
Elanco Innovation	3.00	3.60	1.30
Lilly Company Bonus Multiple			1.73
Resulting Elanco Bonus Multiple			1.24

*See Appendix A, "Summary of Adjustments Related to the Annual Cash Bonus and Performance Award."

2018 Elanco Bonus Performance Multiples



Elanco Resulting Bonus Payout Multiple



Elanco's 2018 innovation target was 3.0 on a scale of 1.0 to 5.0. Elanco's innovation multiple comprises the following factors: (i) achievement of product approvals, (ii) entrants into early and late-stage development, (iii) adherence to approval timelines, and (iv) a qualitative assessment by Elanco's head of R&D of overall performance. Based on the weighted outcomes of these factors, Elanco achieved a 3.6 score, which correlates to a 1.30 innovation multiple for use in the Elanco bonus calculation.

When combined, the Elanco revenue, Elanco operating margin, Elanco innovation, and Lilly bonus multiple yielded a 2018 Elanco bonus plan multiple of 1.24.

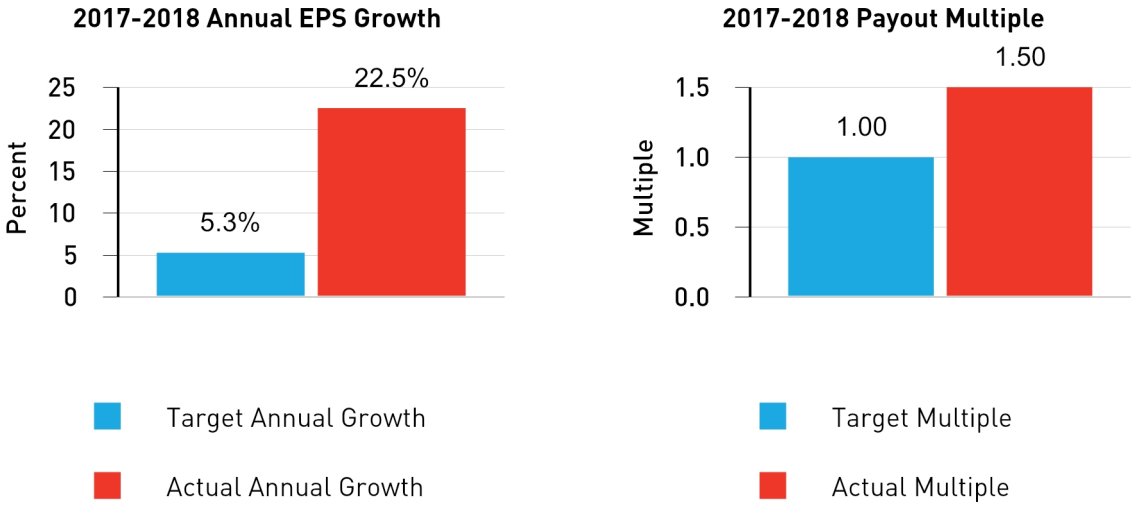
(0.25 x 0.85) + (0.25 x 1.10) + (0.25 x 1.30) + (0.25 x 1.73) = 1.24 bonus multiple

The 2018 bonus paid to Mr. Simmons under the Elanco bonus plan is as follows:

Name	2018 Bonus ($)
Mr. Simmons	$907,450

2017-2019 Performance Awards

The target cumulative EPS for the 2017-2019 performance award was set in the first quarter of 2017, reflecting expected industry growth of 5.3 percent each year over the two-year performance period of 2017-2018. The company's actual annual EPS growth for the two-year period was 22.5 percent, after an adjustment to non-GAAP EPS of $(0.24) to eliminate the benefit to our effective tax rate resulting from the implementation of U.S. tax reform in 2018. The actual EPS growth over the 2017-2018 performance period was largely driven by volume growth from our newer products.



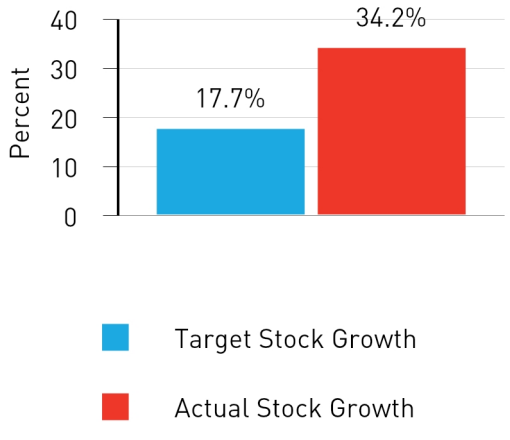
For the named executive officers other than Mr. Smiley and Dr. Skovronsky, shares earned for the 2017-2018 performance period are subject to an additional 13-month service-vesting period and are shown in the table below as restricted stock units. Mr. Smiley's and Dr. Skovronsky's 2017-2018 performance awards were paid in shares of Lilly common stock.

Name	Target Shares	Shares Earned	RSUs Earned
Mr. Ricks	46,233	N/A	69,350
Mr. Smiley	4,759	7,139	N/A
Mr. Harrington	12,510	N/A	18,765
Mr. Conterno	13,598	N/A	20,397
Dr. Skovronsky	8,839	13,259	N/A
Mr. Simmons	10,878	N/A	16,317

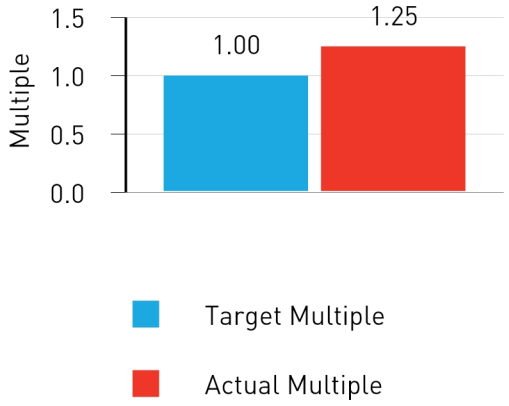
2016-2018 Shareholder Value Award

The target stock price range of $98.55 to $109.06 (17.7 percent to 30.2 percent total stock price growth) for the 2016-2018 shareholder value award was set in 2016 based on a beginning stock price of $83.74, which was the average closing price for Lilly stock for all trading days in November and December 2015. The ending stock price of $112.38 represents stock price growth of approximately 34.2 percent over the relevant three-year period. The company's performance compared to target (and the resulting payout multiple) for this award is shown below:

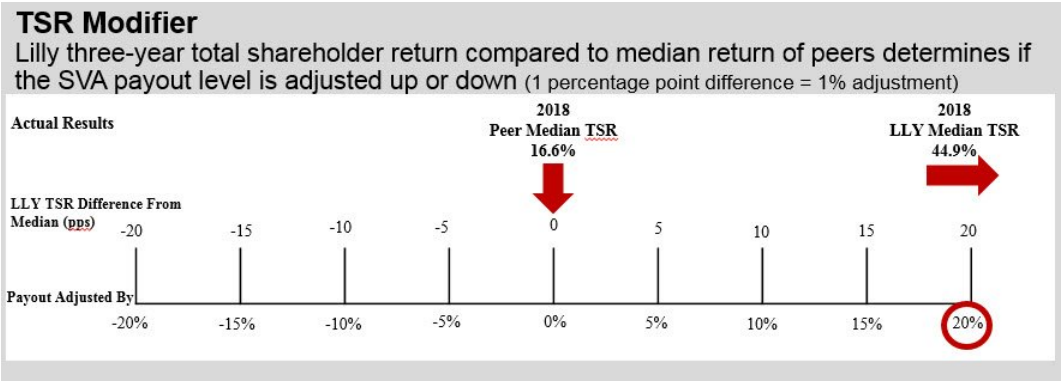
2016-2018 Cumulative Lilly Stock Growth



2016-2018 Shareholder Value Award Payout Multiple



The performance multiple of 1.25 was modified for all the named executive officers other than Mr. Smiley and Dr. Skovronsky by the relative TSR metric. The cumulative TSR median for the company's peer group was 16.6 percent, and Lilly's TSR over the same period was 44.9 percent as depicted in the chart below:



Given this positive relative performance, the shareholder value award payout multiple was increased by 20 percent, making the final performance multiple for these named executive officers 1.50.

The number of shares paid to each of our named executive officers for the 2016-2018 performance period were as follows:

Name	Target Shares	Shares Paid Out
Mr. Ricks	32,109	48,164
Mr. Smiley*	6,744	8,430
Mr. Harrington	33,568	50,352
Mr. Conterno	32,109	48,164
Dr. Skovronsky*	12,042	15,053
Mr. Simmons	29,190	43,785

*The TSR modifier did not apply to Mr. Smiley's and Dr. Skovronky's 2016-2018 shareholder value award payouts since neither one was an executive officer at the time of grant.

Other Compensation Practices and Information

Employee Benefits

The company offers core employee benefits coverage to:

- provide our workforce with a reasonable level of financial support in the event of illness or injury
- provide post-retirement income
- enhance productivity and job satisfaction through benefit programs that focus on overall well-being.

The benefit programs available to executive officers are offered to all U.S. employees and include medical and dental coverage, disability insurance, and life insurance. In addition, The Lilly Employee 401(k) plan (401(k) Plan) and The Lilly Retirement Plan (the Retirement Plan) provide U.S. employees a reasonable level of retirement income reflecting employees' careers with the company. To the extent that any employee's retirement benefit exceeds Internal Revenue Service (IRS) limits for amounts that can be paid through a qualified plan, the company also offers a nonqualified pension plan and a nonqualified savings plan. These plans provide only the difference between the calculated benefits and the IRS limits, and the formula is the same for all U.S. employees. The cost of employee benefits is partially borne by the employee, including each executive officer.

Perquisites

The company provides very limited perquisites to executive officers. The company generally does not allow personal use of the corporate aircraft. In rare cases when the security and efficiency benefits outweigh the expense, the corporate aircraft is made available to Mr. Ricks for personal use. The company did not incur any expenses for personal use of its aircraft in 2018 by Mr. Ricks, and he did not receive any other perquisites. Depending on seat availability, family members and personal guests may accompany executive officers who are traveling for business on the company aircraft. There is no incremental cost to the company for these trips by family members and personal guests.

The Lilly Deferred Compensation Plan

Members of senior management may defer receipt of part or all of their cash compensation under The Lilly Deferred Compensation Plan (Deferred Compensation Plan), which allows executives to save for retirement in a tax-effective way at minimal cost to the company. Under this unfunded plan, amounts deferred by the executive are credited at an interest rate of 120 percent of the applicable federal long-term rate, as described in more detail following the "Nonqualified Deferred Compensation in 2018" table.

Severance Benefits

Except in the case of a change in control of the company, the company is not obligated to pay severance to executive officers upon termination of their employment; any such payments are at the discretion of the Compensation Committee.

The company has adopted change-in-control severance pay plans for nearly all employees, including executive officers. The plans are intended to preserve employee morale and productivity and encourage retention in the face of the disruptive impact of an actual or rumored change in control. In addition, the plans are intended to align executive and shareholder interests by enabling executives to evaluate corporate transactions that may be in the best interests of the shareholders and other constituents of the company without undue concern over whether the transactions may jeopardize the executives' own employment.

Highlights of Our Change-in-Control Severance Plans

- all regular employees are covered
- double trigger generally required
- no tax gross-ups
- up to two-year pay protection
- 18-month benefit continuation

Although benefit levels may differ depending on the employee's job level and seniority, the basic elements of the plans are comparable for all eligible employees:

- **Double trigger:** Unlike "single trigger" plans that pay out immediately upon a change in control, our plans require a "double trigger" -- a change in control followed by an involuntary loss of employment within two years. This is consistent with the plan's intent to provide employees with financial protection upon loss of employment. With respect to unvested equity, performance to the date of the change in control will be used to

determine the number of shares earned under an award, but vesting does not accelerate immediately upon a change in control. Rather, the performance-adjusted awards will convert to time-based restricted stock units that continue to vest with the new company. Shares will pay out upon the earlier of the completion of the original award period; upon a covered termination; or if the successor entity does not assume, substitute, or otherwise replace the awards.

- **Covered terminations:** Employees are eligible for payments if, within two years of the change in control, their employment is terminated (i) without cause by the company or (ii) for good reason by the employee, each as is defined in the plan. See "Executive Compensation - Payments Upon Termination or Change in Control" for a more detailed discussion, including a discussion of what constitutes a change in control.

- **Employees who suffer a covered termination receive up to two years of pay and 18 months of benefits protection:** These provisions ensure employees a reasonable period of protection of their income and core employee benefits.
    - *Severance payment.* Eligible terminated employees would receive a severance payment ranging from six months' to two years' base salary. Executives are all eligible for two years' base salary plus two times the then-current year's target bonus.
    - *Benefit continuation.* Basic employee benefits such as health and life insurance would continue for 18 months following termination of employment, unless the individual becomes eligible for coverage with a new employer. All employees would receive an additional two years of both age and years-of-service credit for purposes of determining eligibility for retiree medical and dental benefits.

- **Accelerated vesting of equity awards:** Any unvested equity awards would vest at the time of a covered termination.

- **Excise tax:** In some circumstances, the payments or other benefits received by the employee in connection with a change in control could exceed limits established under Section 280G of the Internal Revenue Code. The employee would then be subject to an excise tax on top of normal federal income tax. The company does not reimburse employees for these taxes. However, the amount of change in control-related benefits will be reduced to the 280G limit if the effect would be to deliver a greater after-tax benefit than the employee would receive with an unreduced benefit.

Elanco has adopted a similar severance plan that covers Mr. Simmons.

Share Ownership and Retention Guidelines; Prohibition on Hedging and Pledging Shares

Share ownership and retention guidelines help to foster a focus on long-term growth. The CEO is required to own company stock valued at least six times annual base salary. During 2018, the holding requirement for other executive officers ranged from two to four times annual base salary depending on the position. Until the required number of shares is reached, an executive officer must retain 50 percent of shares net of taxes received from new equity payouts. Our executives have a long history of maintaining significant levels of company stock. As of December 31, 2018, Mr. Ricks held shares valued at approximately 11 times his base salary. The following table shows the share requirements for the named executive officers:

Name	Share Requirement	Meets Requirement
Mr. Ricks	six times base salary	Yes
Mr. Smiley*	four times base salary	No
Mr. Harrington	four times base salary	Yes
Mr. Conterno	four times base salary	Yes
Dr. Skovronsky	four times base salary	Yes
Mr. Simmons	four times base salary	Yes

* Mr. Smiley was compliant with the annual share retention guideline as he builds toward his ownership requirement.

Executive officers are also required to hold all shares received from equity program payouts, net of acquisition costs and taxes, for at least one year, even once share ownership requirements have been met. For performance awards awarded to executive officers, this holding requirement is met by the 13-month service-vesting period that applies after the end of the performance period.

Non-employee directors and employees, including executive officers, are not permitted to hedge their economic exposures to company stock through short sales or derivative transactions. Non-employee directors and all members of senior management (approximately 150 employees in 2018) are prohibited from pledging any company stock (i.e., using company stock as collateral for a loan or trading shares on margin).

Executive Compensation Recovery Policy

All incentive awards are subject to forfeiture upon termination of employment prior to the end of the performance or vesting period or for disciplinary reasons. In addition, the Compensation Committee has adopted an executive compensation recovery policy that gives the Compensation Committee broad discretion to claw back incentive payouts from any member of senior management whose misconduct results in a material violation of law or company policy that causes significant harm to the company or who fails in his or her supervisory responsibility to prevent such misconduct by others.

Additionally, the company can recover all or a portion of any incentive compensation from an executive officer in the case of materially inaccurate financial statements or material errors in the performance calculation, whether or not such inaccuracies or errors result in a restatement and whether or not the executive officer has engaged in wrongful conduct.

The recovery policy covers any incentive compensation awarded or paid to a member of senior management during the last three years. Subsequent changes in status, including retirement or termination of employment, do not affect the company's rights to recover compensation under the policy.

Looking Ahead to 2019 Compensation

The Compensation Committee reviewed our peer group in 2018 to ensure it continues to include the companies that compete with us, operate in a similar business model, and employ people with the unique skills required to operate an established biopharmaceutical company. The Compensation Committee selected companies whose median market cap and revenues are broadly similar to Lilly. During this review, the Compensation Committee chose to add Allergan, Novo Nordisk, and Takeda while removing Baxter and Medtronic.

Executive Compensation

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($) [1]	Option Awards ($) [2]	Non-Equity Incentive Plan Compensation ($) [3]	Change in Pension Value ($) [4]	All Other Compensation ($) [5]	Total Compensation ($)
David A. Ricks	2018	$1,400,000	$0	$10,584,000	$0	$3,633,000	$1,529,337	$84,000	$17,230,337
Chairman, President, and Chief Executive Officer	2017	$1,400,000	$0	$10,200,000	$0	$2,814,000	$1,347,991	$84,000	$15,845,991
	2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Joshua L. Smiley	2018	$875,000	$0	$2,704,800	$0	$1,438,063	$174,980	$52,500	$5,245,343
Senior Vice President and Chief Financial Officer	2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Michael J. Harrington	2018	$860,300	$0	$2,998,800	$0	$1,190,655	$338,947	$51,618	$5,440,320
Senior Vice President and General Counsel	2017	$856,130	$0	$2,760,000	$0	$917,771	$1,657,718	$51,368	$6,242,987
	2016	$827,400	$0	$2,300,000	$0	$774,446	$1,441,954	$49,644	$5,393,444
Enrique A. Conterno	2018	$794,683	$0	$3,057,600	$0	$1,099,842	$0	$47,681	$4,999,806
Senior Vice President and President, Lilly Diabetes and President, Lilly USA	2017	$762,002	$0	$6,000,000	$0	$816,866	$999,426	$45,720	$8,624,014
	2016	$727,960	$0	$2,200,000	$0	$681,371	$935,408	$43,678	$4,588,417
Daniel M. Skovronsky, M.D., Ph.D.	2018	$837,500	$0	$2,806,000	$0	$1,376,431	$75,717	$50,250	$5,145,898
Senior Vice President and Chief Scientific Officer	2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jeffrey N. Simmons	2018	$775,185	$0	$2,530,654 [2]	$1,119,445	$907,450	$0	$46,511	$5,379,245
President, Chief Executive Officer and Director Elanco Animal Health, Inc.	2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[1] This column shows the grant date fair value of performance awards and shareholder value awards computed in accordance with FASB ASC Topic 718. See Note 11 of the consolidated financial statements in the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, for additional detail regarding assumptions underlying the valuation of equity awards. All values in the "Stock Awards" column were based upon the probable outcome of performance conditions as of the grant date, which vary year to year.

For purposes of comparison, the supplemental table below shows the total target grant values approved by the Compensation Committee:

Name	2016 Total Equity	2017 Total Equity	2018 Total Equity
Mr. Ricks	N/A	$8,500,000	$9,000,000
Mr. Smiley	N/A	N/A	$2,300,000
Mr. Harrington	$2,300,000	$2,300,000	$2,550,000
Mr. Conterno	$2,200,000	$2,500,000	$2,600,000
Dr. Skovronsky	N/A	N/A	$2,300,000
Mr. Simmons	N/A	N/A	$1,200,000

For Mr. Simmons, in addition to the Lilly grant values shown above, the "Stock Awards" column also includes a founders' award for Elanco restricted stock units for Mr. Simmons. This award was granted after the Elanco IPO on October 20, 2018, and it will vest on October 20, 2021. The grant date fair value was $1,119,454 for Mr. Simmons.

The table below shows the minimum, target, and maximum payouts (using the grant date fair value) for the 2018-2019 performance award and the 2018-2020 performance award included in the Summary Compensation Table.

Name	Payout Date	Minimum Payout	Target Payout	Maximum Payout
Mr. Ricks	January 2021	$0	$3,600,000	$5,400,000
Mr. Smiley	January 2021	$0	$920,000	$1,380,000
Mr. Harrington	January 2021	$0	$1,020,000	$1,530,000
Mr. Conterno	January 2021	$0	$1,040,000	$1,560,000
Dr. Skovronsky	January 2021	$0	$1,150,000	$1,725,000
Mr. Simmons	January 2021	$0	$480,000	$720,000

The table below shows the minimum, target, and maximum payouts (using the grant date fair value) for the 2018-2020 shareholder value award in the Summary Compensation Table. As described above in the "Performance Goals for 2018 Incentive Programs" section, since Dr. Skovronsky was not an executive officer at the time of the annual grant, his maximum payout is 150 percent, while the other named executive officers' maximum payouts are 180 percent.

Name	Payout Date	Minimum Payout	Target Payout	Maximum Payout
Mr. Ricks	January 2021	$0	$5,400,000	$9,720,000
Mr. Smiley	January 2021	$0	$1,380,000	$2,484,000
Mr. Harrington	January 2021	$0	$1,530,000	$2,754,000
Mr. Conterno	January 2021	$0	$1,560,000	$2,808,000
Dr. Skovronsky	January 2021	$0	$1,150,000	$1,725,000
Mr. Simmons	January 2021	$0	$720,000	$1,296,000

[2] Following Elanco's initial public offering, Elanco leadership received founders' awards. Mr. Simmons received Elanco stock options, which are Elanco nonqualified stock options with a three-year vesting period followed by a seven-year exercise period.

[3] Payments under the Lilly bonus plan or, with respect to Mr. Simmons, the Elanco bonus plan, for performance in the years represented.

[4] The amounts in this column reflect the change in pension value for each individual, calculated by our actuary, and are affected by additional service accruals and pay earned, as well as actuarial assumption changes. The changes in pension values in 2018 were driven to a large extent by a higher discount rate which decreased the net present value of pensions. The design of the pension benefit plan did not change. See the Pension Benefits in 2018 table below for information about the standard actuarial assumptions used. No named executive officer received preferential or above-market earnings on deferred compensation. In 2018, the net present value of the pension benefits for Mr. Conterno and Mr. Simmons reflect no change from the previous year due to an increase in the discount rate over the prior year. For the other named executive officers, increases in pensionable earnings offset the impact of the 2018 increased discount rate.

[5] The amounts in this column are company matching contributions into each individual's 401(k) and nonqualified savings plan contributions. The company does not reimburse executives for taxes outside of the limited circumstance of taxes related to employee relocation or a prior international assignment. There were no reportable perquisites or personal benefits.

Grants of Plan-Based Awards During 2018

The compensation plans under which the grants in the following table were made are described in the CD&A above and consist of the Lilly and Elanco bonus plans (each, a non-equity incentive plan), the Amended and Restated 2002 Lilly Stock Plan (which provides for performance awards, shareholder value awards, and restricted stock units), and the 2018 Elanco Stock Plan.

To receive a payout under the performance award or the shareholder value award, a participant must remain employed with the company through the end of the relevant award period (except in the case of death, disability, retirement, or plant closing or reduction in workforce). No dividends accrue on either performance awards or shareholder value awards during the performance period. For performance awards, non-preferential dividends accrue during the 13-month service-vesting period (following the two-year performance period) and are paid upon vesting.

Name	Award		Grant Date[2]	Compensation Committee Action Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards [1] Threshold ($)	Target ($)	Maximum ($)	Estimated Possible and Future Payouts Under Equity Incentive Plan Awards Threshold (# shares)	Target (# shares)	Maximum (# shares)	All Other Stock or Option Awards: Number of Shares of Stock, Options, or Units	Exercise or Base Price of Option Awards	Grant Date Fair Value of Equity Awards
Mr. Ricks			—	—	$525,000	$2,100,000	$4,200,000						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				25,129	50,258	75,387			$5,184,000
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				52,414	131,036	235,865			$5,400,000
											0		
Mr. Smiley			—	—	$207,813	$831,250	$1,662,500						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				6,422	12,844	19,266			$1,324,800
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				13,395	33,487	60,277			$1,380,000
											0		
Mr. Harrington			—	—	$172,060	$688,240	$1,376,480						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				7,120	14,240	21,360			$1,468,800
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				14,851	37,127	66,829			$1,530,000
											0		
Mr. Conterno			—	—	$158,937	$635,747	$1,271,493						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				7,260	14,519	21,779			$1,497,600
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				15,142	37,855	68,139			$1,560,000
											0		
Dr. Skovronsky			—	—	$198,906	$795,625	$1,591,250						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				8,028	16,055	24,083			$1,656,000
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				11,231	22,461	33,692			$1,150,000
											0		
Mr. Simmons			—	—	$182,954	$731,815	$1,463,629						
	2018-2020 PA	[3]	2/9/2018	12/11/2017				3,351	6,701	10,052			$691,200
	2018-2020 SVA	[4]	2/9/2018	12/11/2017				6,988	17,471	31,448			$720,000
	Elanco RSU	[5]	10/20/2018	9/5/2018							36,287		$1,119,454
	Elanco Option	[5]	10/20/2018	9/5/2018							109,642	$31.61	$1,119,445

[1] These columns show the threshold, target, and maximum payouts for performance under the Lilly bonus plan or the Elanco bonus plan. Bonus payouts range from 0 to 200 percent of target. The Lilly bonus plan payment for 2018 performance was 173 percent of target. The Elanco bonus plan payment, for Mr. Simmons, for 2018 performance was 124 percent. Actual payouts are shown in the Summary Compensation Table in the column titled "Non-Equity Incentive Plan Compensation."

[2] To assure grant timing is not manipulated for employee gain, the annual grant date is established in advance by the Compensation Committee. Equity awards to new hires and other off-cycle grants are generally effective on the first trading day of the following month.

[3] This row shows the possible payouts for the 2018-2020 performance awards ranging from 0 to 150 percent of target. This performance award will pay out in January 2021. Dr. Skovronsky was not in an executive officer position during the annual granting cycle, so he received a 2018-2019 performance award that is not subject to a 13-month service-vesting period; accordingly, his performance award for 2018-2019 will vest in full as of December 31, 2019.

[4] This row shows the range of payouts for the 2018-2020 shareholder value awards. This shareholder value award will pay out in January 2021, with payouts ranging from 0 to 180 percent of target. We measure the fair value of the shareholder value award on the grant date using a Monte Carlo simulation model. Dr. Skovronsky was not in an executive officer position during the annual granting cycle, so he received a 2018-2020 shareholder value award which is not subject to the TSR modifier; accordingly, his payout will range from 0 to 150 percent of target.

[5] After Elanco's initial public offering, Mr. Simmons received a founders' award in the form of 50 percent Elanco stock options and 50 percent Elanco restricted stock units. The Elanco stock options vest over three years, followed by a seven-year exercise period. The Elanco restricted stock units will vest on October 20, 2021.

Outstanding Equity Awards at December 31, 2018

The 2018 closing stock price used to calculate the values in the table below was $115.72 for Lilly and $31.53 for Elanco.

		Option Awards			Stock Awards			
Name	Award	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units, or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units, or Other Rights That Have Not Vested ($)
Mr. Ricks	2018-2020 SVA						235,865 [1]	$27,294,298
	2017-2019 SVA						140,561 [2]	$16,265,719
	2018-2020 PA						75,387 [3]	$8,723,784
	2017-2019 PA				69,350 [4]	$8,025,182		
	2016-2018 PA				12,222 [5]	$1,414,330		
Mr. Smiley	2018-2020 SVA						60,277 [1]	$6,975,254
	2017-2019 SVA						7,887 [2]	$912,684
	2018-2020 PA						19,266 [3]	$2,229,462
	2010 RSU Award				7,947 [6]	$919,627		
Mr. Harrington	2018-2020 SVA						66,829 [1]	$7,733,452
	2017-2019 SVA						38,034 [2]	$4,401,294
	2018-2020 PA						21,360 [3]	$2,471,779
	2017-2019 PA				18,765 [4]	$2,171,486		
	2016-2018 PA				12,778 [5]	$1,478,670		
Mr. Conterno	2018-2020 SVA						68,139 [1]	$7,885,045
	2017-2019 SVA						41,341 [2]	$4,783,981
	2018-2020 PA						21,779 [3]	$2,520,266
	2017-2019 PA				20,397 [4]	$2,360,341		
	2016-2018 PA				12,222 [5]	$1,414,330		
	2017 RSU Award				34,615 [7]	$4,005,648		
Dr. Skovronsky	2018-2020 SVA						33,692 [1]	$3,898,838
	2017-2019 SVA						14,646 [2]	$1,694,835
	2018-2019 PA						24,083 [3]	$2,786,885
Mr. Simmons	2018-2020 SVA						31,448 [1]	$3,639,163
	2017-2019 SVA						33,074 [2]	$3,827,323
	2018-2020 PA						10,052 [3]	$1,163,217
	2017-2019 PA				16,317 [4]	$1,888,203		
	2016-2018 PA				11,111 [5]	$1,285,765		
	Elanco RSU				36,287 [8]	$1,144,129		
	Elanco stock option	109,642 [9]	$31.61	10/20/2028				

[1] Shareholder value awards granted for the 2018-2020 performance period will vest on December 31, 2020. The number of shares reported reflects the maximum payout, which will be made if the average closing stock price in November and December 2019 is over $120.65. Actual payouts may vary from 0 to 180 percent of target. Net shares from any payout must be held by executive officers for a minimum of one year. Had the performance period ended December 31, 2018, the

payout would have been at 150 percent of target. Dr. Skovronsky was not an executive officer at the time of grant, so he received a 2018-2020 shareholder value award which is not subject to the TSR modifier. As a result, his payout will range from 0 to 150 percent of target. Had the performance period ended December 31, 2018, the payout of Dr. Skovronsky's award would have been at 125 percent of target.

[2] Shareholder value awards granted for the 2017-2019 performance period will vest on December 31, 2019. The number of shares reported reflects the maximum payout, which will be made if the average closing stock price in November and December 2019 is over $101.79. Actual payouts may vary from 0 to 180 percent of target. Net shares from any payout must be held by executive officers for a minimum of one year. Had the performance period ended December 31, 2018, the payout would have been 180 percent of target. Mr. Smiley and Dr. Skovronsky were not executive officers at the time of grant, so they received a 2017-2019 shareholder value award which is not subject to the TSR modifier. As a result, their payouts will range from 0 to 150 percent of target. Had the performance period ended December 31, 2018, the payout of Mr. Smiley's and Dr. Skovronsky's awards would have been at 150 percent of target.

[3] This number represents the maximum value of performance award shares that could pay out for the 2018-2019 performance period, provided performance goals are met. Once the combined cumulative EPS result and associated payout level are determined at the end of the performance period, the associated number of shares will be granted as restricted stock units, vesting in February 2021. Because Dr. Skovronsky was not an executive officer at the time of the annual award cycle, he received a performance award in 2018 that does not include the 13-month vesting period; accordingly, his performance award for 2018-2019 will vest in full as of December 31, 2019. Actual payouts may vary from 0 to 150 percent of target. The number of shares recorded in the table reflects the payout if the combined cumulative EPS for 2018 and 2019 is at least $10.74.

[4] The performance period ended December 31, 2018, for the 2017-2019 performance award resulting in the issuance of restricted stock units for 150 percent of target shares for Mr. Ricks, Mr. Harrington, Mr. Conterno, and Mr. Simmons. These restricted stock units will vest in February 2020. Mr. Smiley and Dr. Skovronsky were not executive officers at the time of grant and are not subject to the 13-month service-vesting holding period; their awards will pay out in Lilly stock in February 2019.

[5] Restricted stock units vested from the 2016-2018 performance award in February 2019.

[6] This grant was made outside of the normal annual cycle in 2010, before Mr. Smiley became an executive officer, and will vest on October 1, 2020.

[7] This grant was made in 2017 and will vest on December 11, 2021.

[8] Elanco restricted stock units granted on October 20, 2018, to Mr. Simmons as a founders' award shortly after Elanco's initial public offering.

[9] Elanco stock options granted on October 20, 2018, to Mr. Simmons as a founders' award shortly after Elanco's initial public offering.

Options Exercised and Stock Vested in 2018

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)[1]
Mr. Ricks	0	$0	21,326 [2]	$1,737,003
			48,164 [3]	$5,787,868
Mr. Smiley	0	$0	8,430 [3]	$1,013,033
			7,139 [4]	$857,894
Mr. Harrington	0	$0	24,524 [2]	$1,997,480
			50,352 [3]	$6,050,800
Mr. Conterno	0	$0	21,326 [2]	$1,737,003
			48,164 [3]	$5,787,868
			20,000 [5]	$1,621,400
Dr. Skovronsky	0	$0	15,053 [3]	$1,808,919
			13,259 [4]	$1,593,334
Mr. Simmons	0	$0	21,326 [2]	$1,737,003
			43,785 [3]	$5,261,643
			20,000 [6]	$1,621,400

[1] Amounts reflect the market value of Lilly stock on the day the stock vested.

[2] Restricted stock units resulting from the 2015-2017 performance award that vested in February 2018.

[3] Payout of the 2016-2018 shareholder value award at 125 percent of target, adjusted by Lilly's three-year cumulative TSR (44.9 percent) relative to its peer companies' median cumulative TSR of 16.6 percent, resulting in a maximum TSR modifier of 20 percent and a final payout of 150 percent of target. Since Dr. Skovronsky and Mr. Smiley were not executive officers when the 2016-2018 shareholder value award was granted, their awards were not subject to the TSR modifier. As a result, their payout multiple was 125 percent of target.

[4] Payout of the 2017-2018 performance award at target for Mr. Smiley and Dr. Skovronsky. Neither were executive officers in 2017 at time of grant; therefore, no additional 13-month service-vesting period applied.

[5] This grant was made in 2008 before Mr. Conterno became an executive officer.

[6] This grant was made in 2008 before Mr. Simmons became an executive officer.

Retirement Benefits

We provide retirement income to eligible U.S. employees, including executive officers, through the following plans:

- The 401(k) Plan, a defined contribution plan qualified under Sections 401(a) and 401(k) of the Internal Revenue Code. Participants may elect to contribute a portion of their base salary to the plan, and the company provides matching contributions on employees' contributions up to 6 percent of base salary up to IRS limits. The employee contributions, company contributions, and earnings thereon are paid out in accordance with elections made by the participant. See the "All Other Compensation" column in the Summary Compensation Table for information about company contributions under the 401(k) Plan for the named executive officers.
- The Retirement Plan, a tax-qualified defined benefit plan that provides monthly benefits to retirees. See the Pension Benefits in 2018 table below for additional information about the value of these pension benefits.

Sections 401 and 415 of the Internal Revenue Code generally limit the amount of annual pension that can be paid from a tax-qualified plan ($275,000 in 2018 and $280,000 in 2019) as well as the amount of annual earnings that can be used to calculate a pension benefit. However, since 1975 the company has maintained a nonqualified pension plan that pays retirees the difference between the amount payable under the Retirement Plan and the amount they would have received without the Internal Revenue Code limits. The nonqualified pension plan is unfunded and subject to forfeiture in the event of bankruptcy. Likewise the company maintains a nonqualified savings plan that allows participants to contribute up to 6 percent of base salary exceeding the IRS limit. The company matches these contributions in the same manner as described in the 401(k) Plan. For more information, see footnote 3 to the Nonqualified Deferred Compensation in 2018 table.

The following table shows benefits that the named executive officers have accrued under the Retirement Plan and the nonqualified pension plan.

Pension Benefits in 2018

Name	Plan	Number of Years of Credited Service	Present Value of Accumulated Benefit ($) [1]	Payments During Last Fiscal Year ($)
Mr. Ricks	retirement plan (pre-2010)	14	$527,812	
	retirement plan (post-2009)	9	$207,040	
	nonqualified plan (pre-2010)	14	$3,853,382	
	nonqualified plan (post-2009)	9	$1,512,159	
	total		$6,100,393	$0
Mr. Smiley	retirement plan (pre-2010)	14	$559,569	
	retirement plan (post-2009)	9	$181,324	
	retirement plan (post-2009)	14	$1,285,869	
	nonqualified plan (post-2009)	9	$407,780	
	total		$2,434,542	$0
Mr. Harrington	retirement plan (pre-2010)	18	$890,707	
	retirement plan (post-2009)	9	$247,087	
	nonqualified plan (pre-2010)	18	$4,737,581	
	nonqualified plan (post-2009)	9	$1,270,411	
	total		$7,145,786	$0
Mr. Conterno	retirement plan (pre-2010)	17	$798,663	
	retirement plan (post-2009)	9	$216,397	
	nonqualified plan (pre-2010)	17	$3,933,824	
	nonqualified plan (post-2009)	9	$1,018,051	
	total		$5,966,935	$0
Dr. Skovronsky	retirement plan (post-2009)	6	$111,749	
	nonqualified plan (post-2009)	6	$318,896	
	total		$430,645	$0
Mr. Simmons	retirement plan (pre-2010)	21	$1,019,096	
	retirement plan (post-2009)	9	$207,040	
	nonqualified plan (pre-2010)	21	$4,344,461	
	nonqualified plan (post-2009)	9	$849,148	
	total		$6,419,745	$0

[1] The following standard actuarial assumptions were used to calculate the present value of each individual's accumulated pension benefit:

Discount rate:	4.52 percent for the qualified plan and 4.36 percent for non-qualified plan
Mortality (post-retirement decrement only):	RP2006 with generational projection using Scale MP2018
Pre-2010 joint and survivor benefit (% of pension):	50% until age 62; 25% thereafter
Post-2009 benefit payment form:	life annuity

The Retirement Plan benefits shown in the table are net present values. The benefits are not payable as a lump sum; they are generally paid as a monthly annuity for the life of the retiree and, if elected, any qualifying survivor. The annual benefit under the retirement plan is calculated using years of service and the average of the annual earnings (salary plus bonus) for the highest five out of the last 10 calendar years of service (final average earnings).

Post-2009 Plan Information: Following amendment of our Retirement Plan formulas, employees hired on or after February 1, 2008, have accrued retirement benefits only under the new plan formula. Employees hired before that date have accrued benefits under both the old and new plan formulas. All eligible employees, including those hired on or after February 1, 2008, can retire at age 65 with at least five years of service and receive an unreduced benefit. The annual benefit under the new plan formula is equal to 1.2 percent of final average earnings multiplied by years of service. Early

retirement benefits under this plan formula are reduced 6 percent for each year under age 65. Transition benefits were afforded to employees with 50 points (age plus service) or more as of December 31, 2009. These benefits were intended to ease the transition to the new retirement formula for those employees who were closer to retirement or had been with the company longer at the time the plan was changed. For the transition group, early retirement benefits are reduced 3 percent for each year from age 65 to age 60 and 6 percent for each year under age 60. All named executive officers except Dr. Skovronsky are in this transition group.

Pre-2010 Plan Information: Employees hired prior to February 1, 2008, accrued benefits under both plan formulas. For these employees, benefits that accrued before January 1, 2010, were calculated under the old plan formula. The amount of the benefit is calculated using actual years of service through December 31, 2009, while total years of service is used to determine eligibility and early retirement reductions. The benefit amount is increased (but not decreased) proportionately, based on final average earnings at termination compared to final average earnings at December 31, 2009. Full retirement benefits are earned by employees with 90 or more points (the sum of his or her age plus years of service). Employees electing early retirement receive reduced benefits as described below:

- The benefit for employees with between 80 and 90 points is reduced by 3 percent for each year under 90 points or age 62.
- The benefit for employees who have fewer than 80 points, but who reached age 55 and have at least 10 years of service, is reduced as described above and is further reduced by 6 percent for each year under 80 points or age 65.

Nonqualified Deferred Compensation in 2018

Name	Plan	Executive Contributions in Last Fiscal Year ($)[1]	Registrant Contributions in Last Fiscal Year ($)[2]	Aggregate Earnings in Last Fiscal Year ($)	Aggregate Withdrawals/ Distributions in Last Fiscal Year ($)	Aggregate Balance at Last Fiscal Year End ($)[3]
Mr. Ricks	nonqualified savings	$67,500	$67,500	$215,811	$0	$972,448
	deferred compensation	$0		$0		$0
	total	$67,500	$67,500	$215,811	$0	$972,448
Mr. Smiley	nonqualified savings	$36,000	$36,000	($2,151)	$0	$278,829
	deferred compensation	$0		$0		$0
	total	$36,000	$36,000	($2,151)	$0	$278,829
Mr. Harrington	nonqualified savings	$35,118	$35,118	($24,042)	$0	$565,716
	deferred compensation	$25,000		$6,274		$211,951
	total	$60,118	$35,118	($17,768)	$0	$777,667
Mr. Conterno	nonqualified savings	$31,181	$31,181	$53,012	$0	$1,018,044
	deferred compensation	$100,000		$42,826		$1,433,769
	total	$131,181	$31,181	$95,838	$0	$2,451,813
Dr. Skovronsky	nonqualified savings	$33,750	$33,750	($19,029)	$0	$294,714
	deferred compensation	$0		$0		$0
	total	$33,750	$33,750	($19,029)	$0	$294,714
Mr. Simmons	nonqualified savings	$30,011	$30,011	$21,215	$0	$803,403
	deferred compensation	$0		$54,151		$1,789,759
	total	$30,011	$30,011	$75,366	$0	$2,593,162

[1] The amounts in this column are also included in the Summary Compensation Table, in the "Salary" column (nonqualified savings) or the "Non-Equity Incentive Plan Compensation" column (deferred compensation).

[2] The amounts in this column are also included in the Summary Compensation Table, in the "All Other Compensation" column as a portion of the savings plan match.

[3] Of the totals in this column, the following amounts have previously been reported in the Summary Compensation Table for this year and for previous years:

Name	2018 ($)	Previous Years ($)	Total ($)
Mr. Ricks	$135,000	135,600	$270,600
Mr. Smiley	$72,000	N/A	$72,000
Mr. Harrington	$95,236	$346,924	$442,160
Mr. Conterno	$162,362	$919,640	$1,082,002
Dr. Skovronsky	$67,500	N/A	$67,500
Mr. Simmons	$60,022	$50,174	$110,196

The Nonqualified Deferred Compensation in 2018 table above shows information about two company programs: the nonqualified savings plan and the Deferred Compensation Plan. The nonqualified savings plan is designed to allow each employee to contribute up to 6 percent of his or her base salary and receive a company match, beyond the contribution limits prescribed by the IRS with regard to 401(k) plans. This plan is administered in the same manner as the 401(k) Plan, with the same participation and investment elections. Executive officers and other U.S. executives may also defer receipt of all or part of their cash compensation under the Deferred Compensation Plan. Amounts deferred by executives under this plan are credited with interest at 120 percent of the applicable federal long-term rate as established the preceding December by the U.S. Treasury Department under Section 1274(d) of the Internal Revenue Code with monthly compounding, which was 3.1 percent for 2018 and is 3.9 percent for 2019. Participants may elect to receive the funds in a lump sum or in up to 10 annual installments following termination of employment, but may not make withdrawals while employed by the company, except in the event of hardship as approved by the Compensation Committee. All deferral elections and associated distribution schedules are irrevocable. Both plans are unfunded and subject to forfeiture in the event of bankruptcy.

Payments Upon Termination or Change in Control (as of December 31, 2018)

The following table describes the potential payments and benefits under the company's compensation and benefit plans and arrangements to which the named executive officers would be entitled upon termination of employment. Except for certain terminations following a change in control of the company, as described below, there are no agreements, arrangements, or plans that entitle named executive officers to severance, perquisites, or other enhanced benefits upon termination of their employment. Any agreement to provide such payments or benefits to a terminating executive officer (other than following a change in control) would be at the discretion of the Compensation Committee.

	Cash Severance Payment [1]	Continuation of Medical / Welfare Benefits (present value) [2]	Acceleration and Continuation of Equity Awards (unamortized expense as of 12/31/18)	Total Termination Benefits
Mr. Ricks				
• Involuntary retirement or termination	$0	$0	$9,439,454	$9,439,454
• Involuntary or good-reason termination after change in control	$7,000,000	$41,386	$57,174,093	$64,215,479
Mr. Smiley				
• Involuntary retirement or termination	$0	$0	$919,627	$919,627
• Involuntary or good-reason termination after change in control	$3,412,500	$47,892	$9,874,445	$13,334,837
Mr. Harrington				
• Involuntary retirement or termination	$0	$0	$3,650,156 [3]	$3,650,156
• Involuntary or good-reason termination after change in control	$3,097,080	$35,919	$16,967,734	$20,100,733
Mr. Conterno				
• Involuntary retirement or termination	$0	$0	$7,780,318	$7,780,318
• Involuntary or good-reason termination after change in control	$2,880,000	$268,226	$21,655,332	$24,803,558
Dr. Skovronsky				
• Involuntary retirement or termination	$0	$0	$0	$0
• Involuntary or good-reason termination after change in control	$3,510,000	$41,386	$8,719,409	$12,270,795
Mr. Simmons				
• Involuntary retirement or termination	$0	$0	$4,318,097 [3]	$4,318,097
• Involuntary or good-reason termination after change in control	$4,400,000	$47,892	$12,341,104	$16,788,996

[1] See "Change-in-Control Severance Pay Plan—Cash Severance Payment" below.

[2] See "Accrued Pay and Regular Retirement Benefits" and "Change-in-Control Severance Pay Plan—Continuation of medical and welfare benefits" below.

[3] Mr. Harrington and Mr. Simmons were retirement eligible at December 31, 2018, and therefore, would be entitled to payouts of their 2016-2018 performance awards vesting February 1, 2019, and their 2017-2019 performance awards vesting February 1, 2020, without any acceleration resulting from an involuntary retirement or termination. The value of those awards included in this amount using the December 31, 2018 closing price of $115.72 was $3,650,156 for Mr. Harrington and $3,173,968 for Mr. Simmons.

Accrued Pay and Regular Retirement Benefits: The amounts shown in the table above do not include certain payments and benefits to the extent they are provided on a non-discriminatory basis to salaried employees generally upon termination of employment. These include:

- accrued salary and vacation pay
- regular pension benefits under the Retirement Plan and the nonqualified pension plan. See "Retirement Benefits" above
- welfare benefits provided to all U.S. retirees, including retiree medical and dental insurance. The amounts shown in the table above as "Continuation of Medical / Welfare Benefits" are explained below
- distributions of plan balances under the 401(k) Plan, the nonqualified savings plan, and the Deferred Compensation Plan. See the narrative following the Nonqualified Deferred Compensation in 2018 table for information about these plans.

Deferred Compensation: The amounts shown in the table do not include distributions of plan balances under the deferred compensation plan. Those balances are shown in the Nonqualified Deferred Compensation in 2018 table.

Death and Disability: A termination of employment due to death or disability does not entitle named executive officers to any payments or benefits that are not available to U.S. salaried employees generally.

Termination for Cause: Executives terminated for cause receive no severance or enhanced benefits and forfeit any unvested equity grants.

Change-in-Control Severance Pay Plan: As described in the CD&A under "Severance Benefits," the company maintains a change-in-control severance pay plan for nearly all employees, including the named executive officers. The change-in-control plan for executive officers defines a change in control very specifically, but generally the terms include the occurrence of one of the following: (i) acquisition of 20 percent or more of the company's stock; (ii) replacement by the shareholders of one half or more of the Board of Directors; (iii) consummation of a merger, share exchange, or consolidation of the company (other than a transaction that results in the Lilly shareholders prior to the transaction continuing to hold more than 60 percent of the voting stock of the combined entity); or (iv) liquidation of the company or sale or disposition of all or substantially all of its assets. The amounts shown in the table for "involuntary or good-reason termination after change in control" are based on the following assumptions and plan provisions:

- **Covered terminations.** The table assumes a termination of employment that is eligible for severance under the terms of the plan, based on the named executive officer's compensation, benefits, age, and service credit at December 31, 2018. Eligible terminations include an involuntary termination for reasons other than for cause or a voluntary termination by the executive for good reason, within two years following the change in control.
  - A termination of an executive officer by the company is for cause if it is for any of the following reasons: (i) the employee's willful and continued refusal to perform, without legal cause, his or her material duties, resulting in demonstrable economic harm to the company; (ii) any act of fraud, dishonesty, or gross misconduct resulting in significant economic harm or other significant harm to the business reputation of the company; or (iii) conviction of or the entering of a plea of guilty or *nolo contendere* to a felony.
  - A termination by the executive officer is for good reason if it results from: (i) a material diminution in the nature or status of the executive's position, title, reporting relationship, duties, responsibilities, or authority, or the assignment to him or her of additional responsibilities that materially increase his or her workload; (ii) any reduction in the executive's then-current base salary; (iii) a material reduction in the executive's opportunities to earn incentive bonuses below those in effect for the year prior to the change in control; (iv) a material reduction in the executive's employee benefits from the benefit levels in effect immediately prior to the change in control; (v) the failure to grant to the executive stock options, stock units, performance shares, or similar incentive rights during each 12-month period following the change in control on the basis of a number of shares or units and all other material terms at least as favorable to the executive as those rights granted to him or her on an annualized average basis for the three-year period immediately prior to the change in control; or (vi) relocation of the executive by more than 50 miles.

- **Cash severance payment.** The cash severance payment amounts to two times the executive officer's annual base salary plus two times the executive officer's bonus target for that year under the bonus plan.

- **Continuation of medical and welfare benefits.** This amount represents the present value of the change-in-control plan's provision, following a covered termination, of 18 months of continued coverage equivalent to the company's current active employee medical, dental, life, and long-term disability insurance. Similar actuarial assumptions to those used to calculate incremental pension benefits apply to the calculation for continuation of medical and welfare benefits, with the addition of actual COBRA rates based on current benefit elections.

- **Acceleration of equity awards.** Upon a covered termination, any unvested equity awards would convert into restricted stock units of the new company, with the number of shares earned under the awards based on accrued performance at the time of the transaction. The restricted stock units will continue to vest and pay out upon the earlier of the completion of the original award period; upon a covered termination; or if the successor entity does not assume, substitute, or otherwise replace the award. The amount in this column represents the value of the acceleration of unvested equity grants had a qualifying termination occurred on December 31, 2018.

- **Excise taxes.** Upon a change in control, employees may be subject to certain excise taxes under Section 280G of the Internal Revenue Code. The company does not reimburse the affected employees for those excise taxes or any income taxes payable by the employee. To reduce the employee's exposure to excise taxes, the employee's change-in-control benefit may be decreased to maximize the after-tax benefit to the individual.

Elanco has adopted a similar change-in-control severance plan that covers Mr. Simmons.

Payments Upon Change in Control Alone. In general, the change-in-control plan is a "double trigger" plan, meaning payments are made only if the employee suffers a covered termination of employment within two years following the change in control, or in the case of equity awards, if the successor entity does not assume, substitute, or otherwise replace the awards.

Compensation Committee Matters

Background

Role of the Independent Consultant in Assessing Executive Compensation

The Compensation Committee has retained Cimi B. Silverberg of Frederic W. Cook & Co., Inc., as its independent compensation consultant. Ms. Silverberg reports directly to the Compensation Committee. Neither she nor her firm is permitted to have any business or personal relationship with management or the members of the Compensation Committee. The consultant's responsibilities are to:

- review the company's total compensation philosophy, peer group, and target competitive positioning for reasonableness and appropriateness
- review the company's executive compensation program and advise the Compensation Committee of evolving best practices
- provide independent analyses and recommendations to the Compensation Committee on the CEO's pay
- review draft CD&A and related tables for the proxy statement
- proactively advise the Compensation Committee on best practices for board governance of executive compensation
- undertake special projects at the request of the Compensation Committee chair.

Ms. Silverberg interacts directly with members of company management only on matters under the Compensation Committee's oversight and with the knowledge and permission of the Compensation Committee chair.

Role of Executive Officers and Management in Assessing Executive Compensation

With the oversight of the CEO and the senior vice president of human resources and diversity, the company's global compensation group formulates recommendations on compensation philosophy, plan design, and compensation for executive officers (other than the CEO, as noted below). The CEO provides the Compensation Committee with a performance assessment and compensation recommendation for each of the other executive officers. The Compensation Committee considers those recommendations with the assistance of its compensation consultant. The CEO and the senior vice president of human resources and diversity attend Compensation Committee meetings; they are not present for executive sessions or any discussion of their own compensation. Only non-employee directors and the Compensation Committee's consultant attend executive sessions.

The CEO does not participate in the formulation or discussion of his pay recommendations. He has no prior knowledge of the recommendations that the consultant makes to the Compensation Committee.

Risk Assessment Process

As part of the company's overall enterprise risk management program, in 2018 the Compensation Committee reviewed the company's compensation policies and practices and concluded that the programs and practices are not reasonably likely to have a material adverse effect on the company. The Compensation Committee noted numerous policy and design features of the company's compensation programs and governance structure that reduce the likelihood of inappropriate risk-taking, including, but not limited to:

- Only independent directors serve on the committee
- The Compensation Committee engages its own independent compensation consultant
- The Compensation Committee has downward discretion to lower compensation plan payouts
- The Compensation Committee approves all adjustments to financial results that affect compensation calculations
- Different measures and metrics are used across multiple incentive plans that appropriately balance cash/stock, fixed/variable pay, and short-term/long-term incentives
- Incentive plans have predetermined maximum payouts
- Performance objectives are challenging but achievable
- Programs with operational metrics have a continuum of payout multiples based upon achievement of performance milestones, rather than "cliffs" that might encourage suboptimal or improper behavior
- A compensation recovery policy is in place for all members of senior management; negative compensation consequences can result in cases involving serious compliance violations
- Meaningful share ownership and retention requirements are in place for all members of senior management and the board.

Compensation Committee Report

The Compensation Committee evaluates and establishes compensation for executive officers and oversees the deferred compensation plan, management stock plans, and other management incentive and benefit programs. Management has the primary responsibility for the company's financial statements and reporting process, including the disclosure of executive compensation. With this in mind, the Compensation Committee has reviewed and discussed with management the CD&A above. The Compensation Committee recommended to the Board of Directors that the CD&A be included in this proxy statement for filing with the SEC.

Compensation Committee

Ralph Alvarez, Chair
Michael L. Eskew
Ellen R. Marram
Kathi P. Seifert

CEO Pay Ratio

Lilly's compensation and benefits philosophy and the overall structure of our compensation and benefit programs are broadly similar across the organization to encourage and reward all employees who contribute to our success. We strive to ensure the pay of every Lilly employee reflects the level of their job impact and responsibilities and is competitive within our peer group. Compensation rates are benchmarked and set to be market-competitive in the country in which the jobs are performed. Lilly's ongoing commitment to pay equity is critical to our success in supporting a diverse workforce with opportunities for all employees to grow, develop, and contribute. As of November 1, 2018, Lilly employed approximately 40,000 people, with approximately 17,000 members of our workforce located in the U.S. and approximately 23,000 members of our workforce located outside of the U.S.

Under rules adopted pursuant to the Dodd-Frank Act of 2010, Lilly must calculate and disclose the total compensation paid to its median paid employee, as well as the ratio of the total compensation paid to the median employee as compared to the total compensation paid to Lilly's CEO. The paragraphs that follow describe our methodology and the resulting CEO pay ratio.

Measurement Date

We identified the median employee using our employee population on November 1, 2018.

Consistently Applied Compensation Measure (CACM)

Under the relevant rules, we identified the median employee by use of a "consistently applied compensation measure," or CACM. We chose a CACM that closely approximates the annual total direct compensation of our employees. Specifically, we identified the median employee by looking at annual base pay, bonus opportunity at target, and the grant date fair value for standard equity awards. We did not adjust the compensation paid to part-time employees to calculate what they would have been paid on a full-time basis.

De Minimis Exception

Lilly has employees in 87 countries. In identifying the median employee, we excluded workers in 9 countries totaling 447 workers (approximately 1.1 percent of our workforce). We excluded these employees because they are affiliated with joint ventures or third-party distributors, and Lilly does not set their compensation philosophy. We excluded the following number of workers from the following countries in the identification of the median employee:

Countries Excluded	Workers Excluded
Bahrain	2
Greece	233
Indonesia	24
Kuwait	15
Oman	1
Pakistan	30
Qatar	7
United Arab Emirates	102
Vietnam	33
Total	**447**

Methodology and Pay Ratio

After applying our CACM and excluding the employees listed above, we identified the median paid employee. Once the median paid employee was identified, we calculated the median paid employee's total annual compensation in accordance with the requirements of the Summary Compensation Table.

Our median employee compensation as calculated using Summary Compensation Table requirements was $91,246. Our CEO's compensation as reported in the Summary Compensation Table was $17,230,337. Therefore, our CEO to median employee pay ratio is 189:1.

Audit Matters

Item 3. Ratification of the Appointment of Principal Independent Auditor

Audit Committee Oversight of Independent Auditor

The Audit Committee is responsible for the appointment, compensation, retention, and oversight of the independent auditor, and oversees the process for selecting, reviewing, and evaluating the lead audit partner. Further information regarding the committee's oversight of the independent auditor can be found in the Audit Committee charter, available online at lilly.com/who-we-are/governance or upon request to the company's corporate secretary.

In connection with the decision regarding whether to reappoint the independent auditor each year (subject to shareholder ratification), the committee assesses the independent auditor's performance. This assessment examines three primary criteria: (1) the independent auditor's qualifications and experience; (2) the communication and interactions with the auditor over the course of the year; and (3) the auditor's independence, objectivity, and professional skepticism. These criteria are assessed against an internal and an external scorecard, and are discussed with management during a private session, as well as in executive session. The committee also periodically considers whether a rotation of the company's independent auditor is advisable.

Ernst & Young LLP (EY) has served as the principal independent auditor for the company since 1940. Based on the Audit Committee's assessment of EY's performance during 2018, the Audit Committee believes that the continued retention of EY to serve as the company's principal independent auditor is in the best interests of the company and its shareholders, and has therefore reappointed EY as the company's principal independent auditor for 2019. In addition to this year's favorable assessment of EY's performance, we recognize that there are several benefits of retaining a longer-tenured independent auditor. EY has gained institutional knowledge and expertise regarding the company's global operations, accounting policies and practices, and internal controls over financial reporting. Audit and other fees are also competitive with peer companies because of EY's familiarity with the company and its operations. In accordance with the bylaws, this appointment is being submitted to the shareholders for ratification.

Representatives of EY are expected to be present at the 2019 annual meeting and will be available to respond to questions. Those representatives will have the opportunity to make a statement if they wish to do so.

Board Recommendation on Item 3

The board recommends that you vote FOR ratifying the appointment of Ernst & Young LLP as principal independent auditor for 2019.

Audit Committee Report

The Audit Committee reviews the company's financial reporting process on behalf of the board. Management has the primary responsibility for the financial statements and the reporting process, including the systems of internal controls and disclosure controls. In this context, the Audit Committee has met and held discussions with management and the independent auditor. Management represented to the Audit Committee that the company's consolidated financial statements for the year ended December 31, 2018 were prepared in accordance with generally accepted accounting principles (GAAP), and the committee has reviewed and discussed the audited financial statements and related disclosures with management and the independent auditor, including a review of the significant management judgments underlying the financial statements and disclosures.

The independent auditor reports to the Audit Committee, which has sole authority to appoint and to replace the independent auditor (subject to shareholder ratification).

The Audit Committee has discussed with the independent auditor matters required to be discussed with the Audit Committee by the standards of the Public Company Accounting Oversight Board (PCAOB) and the NYSE, including the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments, and the clarity of the disclosures in the financial statements. In addition, the Audit Committee has received the written disclosures and the letter from the independent auditor required by applicable PCAOB rules regarding communications with the Audit Committee concerning independence, and has discussed with the independent auditor the auditor's independence from the company and its management. In concluding that the auditor is independent, the Audit Committee determined, among other things, that the nonaudit services provided by EY (as described below) were compatible with its independence. Consistent with the requirements of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act), the Audit Committee has adopted policies to ensure the independence of the independent auditor, such as prior committee approval of non-audit services and required audit partner rotation.

The Audit Committee discussed with the company's internal and independent auditors the overall scope and plans for their respective audits, including internal control testing under Section 404 of the Sarbanes-Oxley Act. The Audit Committee periodically meets with the internal and independent auditors, with and without management present, and in private sessions with members of senior management (such as the chief financial officer and the chief accounting officer) to discuss the results of their examinations, their evaluations of the company's internal controls, and the overall quality of the company's financial reporting. The Audit Committee also periodically meets in executive session.

In reliance on the reviews and discussions referred to above, the committee recommended to the board (and the board subsequently approved the recommendation) that the audited consolidated financial statements be included in the company's annual report on Form 10-K for the year ended December 31, 2018, for filing with the SEC. The Audit Committee has also appointed EY as the company's independent auditor, subject to shareholder ratification, for 2019.

Audit Committee

Michael L. Eskew, Chair
Katherine Baicker, Ph.D.
Jamere Jackson
Kathi P. Seifert
Jackson P. Tai
Karen Walker

Services Performed by the Independent Auditor

The Audit Committee pre-approves all services performed by the independent auditor, in part to assess whether the provision of such services might impair the auditor's independence. The Audit Committee's policy and procedures are as follows:

- **Audit services:** The Audit Committee approves the annual audit services engagement and, if necessary, any changes in terms, conditions, and fees resulting from changes in audit scope, company structure, or other matters. Audit services include internal controls attestation work under Section 404 of the Sarbanes-Oxley Act. The Audit Committee may also pre-approve other audit services, which are those services that only the independent auditor reasonably can provide.

- **Audit-related services:** Audit-related services are assurance and related services that are reasonably related to the performance of the audit or reviews of the financial statements, and that are traditionally performed by the independent auditor. The Audit Committee believes that the provision of these services does not impair the independence of the auditor.
- **Tax services:** The Audit Committee believes that, in appropriate cases, the independent auditor can provide tax compliance services, tax planning, and tax advice without impairing the auditor's independence.
- **Other services:** The Audit Committee may approve other services to be provided by the independent auditor if (i) the services are permissible under SEC and PCAOB rules, (ii) the Audit Committee believes the provision of the services would not impair the independence of the auditor, and (iii) management believes that the auditor is the best choice to provide the services.
- **Approval process:** At the beginning of each audit year, management requests pre-approval from the Audit Committee of the annual audit, statutory audits, and quarterly reviews for the upcoming audit year as well as any other services known at that time. Management will also present at that time an estimate of all fees for the upcoming audit year and known services. As specific engagements are identified thereafter that were not initially approved, they are brought forward to the Audit Committee for approval. To the extent approvals are required between regularly scheduled Audit Committee meetings, pre-approval authority is delegated to the committee chair.

For each engagement, management provides the Audit Committee with information about the services and fees, sufficiently detailed to allow the committee to make an informed judgment about the nature and scope of the services and the potential for the services to impair the independence of the auditor.

After the end of the audit year, management provides the committee with a summary of the actual fees incurred for the completed audit year.

Independent Auditor Fees

The following table shows the fees incurred for services rendered on a worldwide basis by EY in 2018 and 2017. All such services were pre-approved by the Audit Committee in accordance with the pre-approval policy.

		2018 ($ millions)	2017 ($ millions)
Audit Fees		$28.7	$14.8
	Annual audit of consolidated and subsidiary financial statements, including Sarbanes-Oxley 404 attestation, as well as the 2018 audit of consolidated Elanco financial statements for its initial public offering		
	Reviews of quarterly financial statements		
	Other services normally provided by the auditor in connection with statutory and regulatory filings		
Audit-Related Fees		$0.9	$0.5
	Primarily related to assurance and related services reasonably related to the performance of the audit or reviews of the financial statements primarily related to employee benefit plan and other ancillary audits, and due diligence services on potential acquisitions		
Tax Fees		$3.0	$4.8
	Tax compliance services, tax planning, tax advice		
	Primarily related to consulting and compliance services		
Total		$32.6	$20.1

Numbers may not add due to rounding

Management Proposals

Item 4. Proposal to Amend the Company's Articles of Incorporation to Eliminate the Classified Board Structure

The company's articles of incorporation provide that the board is divided into three classes, with each class elected every three years. On the recommendation of the Directors and Corporate Governance Committee, the board has approved, and recommends that the shareholders approve, amendments to eliminate the classified board structure in order to provide for the annual election of all directors. This proposal was brought before shareholders at each of the company's annual meetings from 2007 through 2012 and in 2018, receiving the vote of a strong majority of the outstanding shares at each meeting; however, the proposal requires the vote of 80 percent of the outstanding shares to pass.

If approved, this proposal would become effective upon the filing of amended and restated articles of incorporation with the Secretary of State of Indiana, which the company would do promptly after shareholder approval is obtained. Directors elected prior to the effectiveness of the amendments would stand for election for one-year terms once their then-current terms expire. This means that directors whose terms expire at the 2020 and 2021 annual meetings of shareholders would be elected for one-year terms, and beginning with the 2022 annual meeting, all directors would be elected for one-year terms at each annual meeting. In the case of any vacancy on the board occurring after the 2019 annual meeting created by an increase in the number of directors, the vacancy would be filled through an interim election by the board with the new director to serve a term ending at the next annual meeting. Vacancies created by resignation, removal, or death would be filled by election by the board of a new director to serve until the end of the term of the director being replaced. This proposal would not change the present number of directors or the board's authority to change that number and to fill any vacancies or newly created directorships.

Background of Proposal

As part of its ongoing review of corporate governance matters, the board, assisted by the Directors and Corporate Governance Committee, considered the advantages and disadvantages of maintaining the classified board structure and eliminating the supermajority voting provisions of the articles of incorporation (see Item 5 below). The board considered the view of certain shareholders who believe that classified boards have the effect of reducing the accountability of directors to shareholders because shareholders are unable to evaluate and elect all directors on an annual basis. The board gave considerable weight to the approval at the 2006 annual meeting of a shareholder proposal requesting that the board take all necessary steps to elect the directors annually, and to the favorable votes of a strong majority of the outstanding shares for management's proposals in the following six years and again in 2018.

The board also considered benefits of retaining the classified board structure, which has a long history in corporate law. A classified structure may provide continuity and stability in the management of the business and affairs of the company because a majority of directors always has prior experience as directors of the company. In some circumstances classified boards may enhance shareholder value by forcing an entity seeking control of the company to initiate discussions at arm's-length with the board of the company, because the entity cannot replace the entire board in a single election. The board also considered that even without a classified board (and without the supermajority voting requirements, which the board also recommends eliminating), the company has defenses that work together to discourage a would-be acquirer from proceeding with a proposal that undervalues the company and to assist the board in responding to such proposals. These defenses include other provisions of the company's articles of incorporation and bylaws as well as certain provisions of Indiana corporation law.

The board believes it is important to maintain appropriate defenses to inadequate takeover bids, but also important to retain shareholder confidence by demonstrating that it is accountable and responsive to shareholders. After balancing these interests, the board has decided to resubmit this proposal to eliminate the classified board structure.

Text of Amendments

Article 9(b) of the company's articles of incorporation contains the provisions that will be affected if this proposal is adopted. This article, set forth in Appendix B to this proxy statement, shows the proposed changes, with deletions indicated by strike-outs and additions indicated by underlining. The board has also adopted conforming amendments to the company's bylaws, to be effective immediately upon the effectiveness of the amendments to the articles of incorporation.

Vote Required

The affirmative vote of at least 80 percent of the outstanding shares of common stock is needed to pass this proposal.

Board Recommendation on Item 4

The board recommends that you vote FOR amending the company's articles of incorporation to eliminate the classified board structure.

Item 5. Proposal to Amend the Company's Articles of Incorporation to Eliminate All Supermajority Voting Provisions

Under the company's articles of incorporation, nearly all matters submitted to a vote of shareholders can be adopted by a majority of the votes cast. However, our articles require a few fundamental corporate actions to be approved by the

holders of 80 percent of the outstanding shares of common stock (a "supermajority vote"). Those actions are:

- amending certain provisions of the articles of incorporation that relate to the number and terms of office of directors:
  -the company's classified board structure (as described under Item 4)
  -a provision that the number of directors shall be specified solely by resolution of the board
- removing directors prior to the end of their elected term
- entering into mergers, consolidations, recapitalizations, or certain other business combinations with a "related person"—a party who has acquired at least 5 percent of the company's stock (other than the Endowment or a company benefit plan) without the prior approval of the board
- modifying or eliminating any of the above supermajority voting requirements.

Background of Proposal

This proposal is the result of the board's ongoing review of corporate governance matters. From 2007 through 2009, shareholder proposals requesting that the board take action to eliminate the supermajority voting provisions were supported by a majority of votes cast. From 2010 through 2012 and in 2018, the board submitted proposals seeking shareholder approval to eliminate these supermajority provisions. In all four years, the proposal received a strong majority of the outstanding shares, but fell short of the required 80 percent vote.

Assisted by the Directors and Corporate Governance Committee, the board considered the advantages and disadvantages of maintaining the supermajority voting requirements. The board considered that under certain circumstances, supermajority voting provisions can provide benefits to the company. The provisions can make it more difficult for one or a few large shareholders to take over or restructure the company without negotiating with the board. In the event of an unsolicited bid to take over or restructure the company, supermajority voting provisions may encourage bidders to negotiate with the board and increase the board's negotiating leverage on behalf of the shareholders. They can also give the board time to consider alternatives that might provide greater value for all shareholders.

The board also considered the potential adverse consequences of opposing elimination of the supermajority voting requirements. While it is important to the company's long-term success for the board to maintain appropriate defenses against inadequate takeover bids, it is also important for the board to maintain shareholder confidence by demonstrating that it is responsive and accountable to shareholders and committed to strong corporate governance. This requires the board to carefully balance sometimes competing interests. In this regard, the board gave considerable weight to the fact that a substantial majority of shares voted have supported eliminating the supermajority voting provisions. Many shareholders believe that supermajority voting provisions impede accountability to shareholders and contribute to board and management entrenchment.

The board also considered that even without the supermajority vote (and without the classified board, which the board also recommends eliminating), the company has defenses that work together to discourage a would-be acquirer from proceeding with a proposal that undervalues the company and to assist the board in responding to such proposals. These defenses include other provisions of the company's articles of incorporation and bylaws as well as certain provisions of Indiana corporation law.

Therefore, the board believes the balance of interests is best served by recommending to shareholders that the articles of incorporation be amended to eliminate the supermajority voting provisions. By recommending these amendments, the board is demonstrating its accountability and willingness to take steps that address shareholder-expressed concerns.

Text of Amendments

Articles 9(c), 9(d), and 13 of the company's articles of incorporation contain the provisions that will be affected if this proposal is adopted. These articles, set forth in Appendix B to this proxy statement, show the proposed changes with deletions indicated by strike-outs and additions indicated by underlining.

Vote Required

The affirmative vote of at least 80 percent of the outstanding shares of common stock is needed to pass this proposal.

Board Recommendation on Item 5

The board recommends that you vote FOR amending the company's articles of incorporation to eliminate all supermajority voting provisions.

Shareholder Proposal

Item 6. Proposal Requesting a Report Regarding Direct and Indirect Political Expenditures

National Center for Public Policy Research (NCPPR), 20 F Street, NW, Suite 700, Washington, D.C., beneficial owner of 62 shares of our common stock, has submitted the following proposal:

Whereas, we believe in full disclosure of our Company's direct and indirect lobbying activities and expenditures to assess whether Eli Lilly's lobbying is consistent with the Company's expressed goals and in the best interest of shareowners.

RESOLVED, the shareowners of Eli Lilly request the preparation of a report, updated annually, disclosing:

1. Company policy and procedures governing lobbying, both direct and indirect, and grassroots lobbying communications.
2. Payments by Eli Lilly used for (a) direct or indirect lobbying or (b) grassroots lobbying communications, in each case including the amount of the payment and the recipient.
3. Eli Lilly's membership and payments to any tax-exempt organization that writes and/or endorses model legislation.
4. Description of management's and the Board's decision-making process and oversight for making payments described in sections 2 and 3 above.

For purposes of this proposal, a "grassroots lobbying communication" is a communication directed to the general public that (a) refers to specific legislation or regulation, (b) reflects a view on the legislation or regulation and (c) encourages the recipient of the communication to take action with respect to the legislation or regulation. "Indirect lobbying" is lobbying engaged in by a trade association or other organization of which Eli Lilly is a member. Both "direct and indirect lobbying" and "grassroots lobbying communications" include efforts at the local, state and federal levels.
The report shall be presented to all relevant oversight committees and posted on Eli Lilly's website.

Supporting Statement

The Company lobbies on a broad array of issues and works with groups that do the same. That's a good thing as the Company is rightfully exercising free speech. As such, the Company has become a target for anti-free speech activists. These activists are working to defund pro-business organizations by attacking their corporate members.
The Company should take an active role in combating this narrative and attacks on its freedom of association rights.

The Company should be proud of its memberships in trade associations and non-profit groups that promote pro-business, pro-growth initiatives.

For example, the Company's relationships with groups such as the American Legislative Exchange Council and PhRMA should be applauded and endorsed by shareholders. These groups advance initiatives that are designed to unburden corporations such as Eli Lilly, allowing them the freedom to create jobs and economic prosperity in the United States.

Rather than letting outside agitators set the message that these relationships are somehow nefarious, the Company should explain the benefits of its involvement with groups that advocate for smaller government, lower taxes, and free-market reforms. The Company should show how these relationships benefit shareholders, increase jobs and wages, help local communities, and generally advance the Company's interests.

The proponent supports the Company's free speech rights and freedom to associate with groups that advance economic liberty. The Company should stand up for those rights.

Statement in Opposition to the Shareholder Proposal Requesting Report Regarding Direct and Indirect Political Expenditures

The Public Policy and Compliance Committee has reviewed this proposal and recommends a vote against it, as we currently publish a substantial amount of the information requested by the shareholder. The additional reporting requirements are unnecessary, as the information requested is publicly available and this reporting would place an undue administrative burden on the company.

Since 2005, the company has published the following information on our website (lilly.com/LillyPAC) for both direct company contributions and employee political action committee (PAC) contributions to support candidates for political office, political parties, officials, or committees in the U.S.:

- policies and procedures for company and PAC contributions
- contributions to candidates, including information about the candidate's office (for example, state, local, or federal; House or Senate), party affiliation, and state
- contributions to political organizations and Section 527 organizations reported by state.

This information is updated annually. In addition to the information available on our website, detailed corporate contributions, PAC contribution data, and the company's direct lobbying expenses are available to the public on the Federal Election Committee website (fec.gov/data/) and through individual state agencies. The company's direct lobbying expenses are also available to the public on the Lobbying Disclosure page of the U.S. House website (disclosures.house.gov/ld/ldsearch.aspx) and through individual state agencies.

In addition to direct political contributions, Lilly maintains memberships in certain 501(c)(6)s—trade associations that report lobbying activity to the U.S. government. We maintain memberships in trade associations and other tax-exempt organizations specific to business and pharmaceutical industry interests, such as PhRMA (Pharmaceutical Research and Manufacturers Association), BIO (Biotechnology Association), and the National Association of Manufacturers. We support organizations that champion public policies that contribute to pharmaceutical innovation, healthy patients, and a healthy business climate.

Information relating to Lilly's memberships in trade associations to which we contribute $50,000 per year or more, and any such organizations where Lilly has a board seat can be found on our website.

These tax-exempt organizations are also required to disclose their lobbying expenditures under the Lobbying Act of 1995; they report their lobbying expenditures to the U.S. Senate.

As we do not control what portion of the organization's budget is spent on lobbying, it is the fact of company membership in and support for the trade association, and the trade association's total lobbying expenditure, that reveals the most about Lilly's political activities. As a result, the board does not believe any value provided by the requested additional disclosures merits the resources required to produce such a report.

Board Recommendation on Item 6

The board recommends that you vote AGAINST this proposal.

Other Information

Meeting and Voting Logistics

Additional Items of Business

We do not expect any items of business other than those set forth above because the deadline for shareholder proposals and nominations has passed. Nonetheless, if necessary, the accompanying proxy gives discretionary authority to the persons named on the proxy with respect to any other matters that might be brought before the meeting. Those persons intend to vote that proxy in accordance with their best judgment.

Voting

Shareholders as of the close of business on February 26, 2019 (the record date) may vote at the 2019 annual meeting. You have one vote for each share of common stock you held on the record date, including shares:

- held directly in your name as the shareholder of record
- held for you in an account with a broker, bank, or other nominee
- attributed to your account in the company's 401(k) plan.

You may vote your shares in person at the meeting. However, we encourage you to vote by mail, by telephone, or online even if you plan to attend the meeting.

Required Vote

Below are the vote requirements for the various proposals:

- The four nominees for director will be elected if the votes cast for the nominee exceed the votes cast against the nominee. Abstentions will not count as votes cast either for or against a nominee.
- The following items of business will be approved if the votes cast for the proposal exceed those cast against the proposal:
    - advisory approval of executive compensation
    - ratification of the appointment of principal independent auditor
    - one shareholder proposal.

  Abstentions will not be counted either for or against these proposals.
- The proposals to amend the articles of incorporation to eliminate the classified board structure and to eliminate supermajority voting provisions require the vote of 80 percent of the outstanding shares of our common stock. For these items, abstentions and broker non-votes have the same effect as a vote against the proposals.

Quorum

A majority of the outstanding shares, present or represented by proxy, constitutes a quorum for the annual meeting. As of February 26, 2019, 1,035,818,952 shares of company common stock were issued and outstanding.

Voting by Proxy

If you are a shareholder of record, you may vote your proxy by any one of the following methods:

Online. You may vote online at proxyvote.com. Follow the instructions on your proxy card or notice. If you received these materials electronically, follow the instructions in the email message that notified you of their availability. Voting online has the same effect as voting by mail. If you vote online, do not return your proxy card.

By telephone. Shareholders in the U.S., Puerto Rico, and Canada may vote by telephone by following the instructions on your proxy card or notice. If you received these materials electronically, follow the instructions in the email message that notified you of their availability. Voting by telephone has the same effect as voting by mail. If you vote by telephone, do not return your proxy card.

By mail. Sign and date each proxy card you receive and return it in the prepaid envelope. Sign your name exactly as it appears on the proxy. If you are signing in a representative capacity (for example, as an attorney-in-fact, executor, administrator, guardian, trustee, or the officer or agent of a corporation or partnership), please indicate your name and your title or capacity. If the stock is held in custody for a minor (for example, under the Uniform Transfers to Minors Act), the custodian should sign, not the minor. If the stock is held in joint ownership, one owner may sign on behalf of all owners. If you return your signed proxy but do not indicate your voting preferences, the proxy holder will vote on your behalf based upon the board's recommendations.

You have the right to revoke your proxy at any time before the meeting by (i) notifying the company's secretary in writing, or (ii) delivering a later-dated proxy online, by mail, or by telephone. If you are a shareholder of record, you may also revoke your proxy by voting in person at the meeting.

Voting Shares Held by a Broker

If your shares are held by a broker, the broker will ask you how you want your shares to be voted. You may instruct your broker or other nominee to vote your shares by following instructions that the broker or nominee provides to you. Most brokers offer voting by mail, by telephone, and online.

If you give the broker instructions, your shares will be voted as you direct. If you do not give instructions, one of two things can happen, depending on the type of proposal. For the ratification of the principal independent auditor, the broker may vote your shares in its discretion. For all other proposals, the broker may not vote your shares at all.

Voting Shares Held in the Company 401(k) Plan

You may instruct the plan trustee on how to vote your shares in the 401(k) plan online, by mail, or by telephone as described above, except that, if you vote by mail, the card that you use will be a voting instruction form rather than a proxy card.

In addition, unless you decline, your vote will apply to a proportionate number of other shares held by participants in the 401(k) plan for which voting directions are not received (except for a small number of shares from a prior stock ownership plan, which can be voted only on the directions of the participants to whose accounts the shares are credited).

All participants are named fiduciaries under the terms of the 401(k) plan and under the Employee Retirement Income Security Act (ERISA) for the limited purpose of voting shares credited to their accounts and the portion of undirected shares to which their vote applies. Under ERISA, fiduciaries are required to act prudently in making voting decisions.

If you do not want to have your vote applied to the undirected shares, you must so indicate when you vote. Otherwise, the trustee will automatically apply your voting preferences to the undirected shares proportionally with all other participants who elected to have their votes applied in this manner.

If you do not vote, your shares will be voted by other plan participants who have elected to have their voting preferences applied proportionally to all shares for which voting instructions are not otherwise received.

Proxy Cards and Notices

If you received more than one proxy card, notice, or email related to proxy materials, you hold shares in more than one account. To ensure that all your shares are voted, sign and return each card. Alternatively, if you vote by telephone or online, you will need to cast a vote for each proxy card, notice, or email you receive. If you do not receive a proxy card, you may have elected to receive your proxy statement electronically, in which case you should have received an email with directions on how to access the proxy statement and how to vote your shares. If you wish to request a paper copy of these materials and a proxy card, please call 800-579-1639.

Vote Tabulation

Votes are tabulated by an independent inspector of election, Broadridge Financial Solutions, Inc.

Attending the Annual Meeting - *New Admission Procedure*

The meeting will be held at the Lilly Center Auditorium at Lilly Corporate Center.

All shareholders as of close of business on February 26, 2019 may attend the annual meeting. To gain admission, you must request an admission ticket as described below and present it along with valid, government-issued photo identification, such as a driver's license or passport. **Your request for an admission ticket must be received before 5:00 p.m. EDT on April 30, 2019.**

Admission tickets are available for registered and beneficial shareholders and for one guest accompanying each shareholder. If you are attending the meeting as a proxy for or qualified representative of a shareholder, you will need your legal proxy or authorization letter in addition to your admission ticket and photo identification.

To obtain an admission ticket for you and your guest online, please access "Register for Meeting" at proxyvote.com and follow the instructions provided. You will need to enter your 16-digit voting control number found in your proxy materials. **You must print a ticket for you and your guest and bring each ticket to the meeting. Each person attending must provide the admission ticket and photo identification.** If you are unable to print the ticket, please call Shareholder Meeting Support, Broadridge Financial Solutions, Inc. at 844-318-0137 for assistance. Failure to follow these admission procedures may delay your entry into, or prevent you from being admitted to, our annual meeting.

You can also register to attend the meeting by calling Shareholder Meeting Support, Broadridge Financial Solutions, Inc. at 844-318-0137. When registering via phone, you will be placed on the attendee list but will not receive an admission ticket. You will need to present photo identification to enter the meeting.

To ensure your safety, all attendees and their belongings will pass through a metal detector upon arrival at the annual meeting. Attendees may also be subject to further security inspections. No photography, videography, or audio recording is allowed inside Lilly buildings.

Parking will be available on a first-come, first-served basis in the garage indicated on the map at the end of this report. If you have questions about admittance or parking, please call 855-731-6026 (toll free) or 317-433-5112 (prior to the annual meeting).

The 2020 Annual Meeting

The company's 2020 annual meeting is currently scheduled for May 4, 2020.

Other Matters

Householding

We have adopted a procedure approved by the SEC called "householding." Under the householding procedure, certain shareholders, whether they own registered shares or shares in street name, who have the same address will receive only one set of proxy materials, unless one or more of the shareholders at that address has previously notified us that they want to receive separate copies. Each 401(k) Plan participant will continue to receive a copy of all of the proxy materials. Regardless of how you own your shares, if you received a single set of proxy materials as a result of householding, and one or more shareholders at your address would like to have separate copies of these materials with respect to the 2019 annual meeting or in the future, please contact Broadridge Financial Solutions, Inc. at 866-540-7095.

Other Information Regarding the Company's Proxy Solicitation

The board is soliciting proxies for the 2019 annual meeting. We will pay all expenses in connection with our solicitation of proxies. We will pay brokers, nominees, fiduciaries, or other custodians their reasonable expenses for sending proxy material to and obtaining instructions from persons for whom they hold stock of the company. We expect to solicit proxies primarily by mail and email, but directors, officers, and other employees of the company may also solicit in person or by telephone, fax, or email. We have retained Georgeson LLC to assist in the distribution and solicitation of proxies. Georgeson may solicit proxies by personal interview, telephone, fax, mail, and email. We expect that the fee for those services will not exceed $17,500 plus reimbursement of customary out-of-pocket expenses.

Section 16(a) Beneficial Ownership Reporting Compliance

Under SEC rules, our directors and executive officers are required to file with the SEC reports of holdings and changes in beneficial ownership of company stock. We have reviewed copies of reports provided to the company, as well as other records and information. Based on that review, we concluded that all reports were timely filed, except that, due to administrative errors, Aarti Shah amended her Form 3 on January 17, 2018, to reflect her ownership of additional shares of company stock that were inadvertently excluded in the original filing. Myles O'Neill was late in reporting derivative shares beneficially owned by his spouse on his original Form 3 filed on January 10, 2018, and was late in reporting the vesting of two equity awards of his spouse, filed on September 24, 2018. Each filing was made promptly after the issue was discovered.

By order of the Board of Directors,

Bronwen L. Mantlo
Secretary

March 22, 2019

Appendix A - Summary of Adjustments Related to the Annual Cash Bonus and Performance Award

Consistent with past practice, the Compensation Committee adjusted the reported financial results on which the 2018 annual cash bonus and the 2017-2019 performance awards were determined to eliminate the distorting effect of certain unusual items on incentive compensation performance measures. The adjustments are intended to:

- align award payments with the underlying performance of the core business
- avoid volatile, artificial inflation or deflation of awards due to unusual items in the award year, and, where relevant, the previous (comparator) year
- eliminate certain counterproductive short-term incentives—for example, incentives to refrain from acquiring new technologies, to defer disposing of underutilized assets, or to defer settling legacy legal proceedings to protect current bonus payments
- facilitate comparisons with peer companies.

To ensure the integrity of the adjustments, the Compensation Committee establishes adjustment guidelines in the first 90 days of the performance period. These guidelines are generally consistent with the company guidelines for reporting non-GAAP financial measures to the investment community, which are reviewed by the Audit Committee. The adjustments apply equally to income and expense items. The Compensation Committee reviews all adjustments and retains downward discretion, i.e., discretion to reduce compensation below the amounts that are yielded by the adjustment guidelines.

Adjustments for 2018 Bonus Plan

For 2018 bonus calculations, the Compensation Committee made the following adjustments to reported EPS consistent with our external reporting of non-GAAP financial measures:

- Eliminated the impact of the charge recognized for acquired in-process research development
- Eliminated the impact of amortization of certain intangible assets
- Eliminated the impact of asset impairments, restructuring, and other special charges
- Eliminated the impact of certain income tax items, including adjustments for the 2017 Toll Tax (and related adjustments made during 2018) and other matters related to U.S. tax reform, as well as tax associated with the separation of the Elanco animal health business
- Eliminated the impact of other specified items

In addition to the adjustments consistent with our reporting of non-GAAP financial measures, the Compensation Committee made one additional adjustment to reported EPS when calculating adjusted non-GAAP EPS for the bonus plan, as follows:

- When the Compensation Committee set 2018 bonus targets, the EPS goal was set assuming a lower amount of share repurchases than were actually executed during 2018. The Compensation Committee neutralized the impact of the additional share repurchases on EPS results for the amount that exceeded one percent of the EPS goal.

Reconciliations of these adjustments to our reported EPS are below:

	2018
EPS as reported	$3.13
Eliminate acquired in-process research and development charges	$1.83
Eliminate amortization of certain intangible assets	$0.43
Eliminate asset impairments, restructuring and other special charges	$0.41
Eliminate income tax items	(0.25)
Eliminate other specified items	$0.01
Non-GAAP EPS	$5.55
Share repurchase adjustment	(0.06)
Adjusted Non-GAAP EPS	$5.49

*Numbers may not add due to rounding

Adjustments for 2017-2019 Performance Award

For the 2017-2019 performance award payout calculations, the Compensation Committee made the following adjustments to reported EPS consistent with our reporting of non-GAAP financial measures:

- 2018, 2017 and 2016: Eliminated the impact of the charges recognized for acquired in-process research and development
- 2018, 2017 and 2016: Eliminated the impact of amortization of certain intangible assets
- 2018, 2017 and 2016: Eliminated the impact of asset impairments, restructuring, and other special charges
- 2018 and 2017: Eliminated the impact of certain income tax items, including the 2017 Toll Tax (and related adjustments made during 2018) and other matters related to U.S. tax reform, as well as taxes associated with the separation of the Elanco animal health business
- 2018 and 2017: Eliminated the impact of other specified items
- 2016: Eliminated the impact of the Venezuelan financial crisis

In addition to the adjustments consistent with our reporting of non-GAAP financial measures, the Compensation Committee made the following adjustment:

- When the Compensation Committee set 2017-2019 performance award targets, the EPS goals were set assuming a higher effective tax rate prior to the enactment of U.S. tax reform. The Compensation Committee neutralized the impact of the reduction in our effective tax rate resulting from U.S. tax reform.

Reconciliations of these adjustments to our reported EPS are below:

	2018	2017	% Growth 2018 vs. 2017	2016	% Growth 2017 vs. 2016
EPS as reported	$3.13	$(0.19)	NM	$2.58	NM
Eliminate acquired in-process research and development charges	$1.83	0.97		$0.02	
Eliminate amortization of certain intangible assets	$0.43	0.44		$0.44	
Eliminate asset impairments, restructuring and other special charges	0.41	$1.23		$0.29	
Eliminate certain income tax items	$(0.25)	$1.81		—	
Eliminate other specified items	$0.01	$0.03		—	
Eliminate impact of the Venezuelan financial crisis	—	—		$0.19	
Non-GAAP EPS	$5.55	$4.28	29.7%	$3.52	21.6%
U.S. tax reform adjustment	$(0.24)	—		—	
Adjusted Non-GAAP EPS	$5.31	$4.28	24.1%	$3.52	21.6%

*Numbers may not add due to rounding

Appendix B - Proposed Amendments to the Company's Articles of Incorporation

Proposed changes to the company's articles of incorporation are shown below related to Items 4 and 5, "Items of Business To Be Acted Upon at the Meeting." The changes shown to Article 9(b) will be effective if Item 4, "Proposal to Amend the Company's Articles of Incorporation to Eliminate the Classified Board Structure," receives the vote of at least 80 percent of the outstanding shares. The changes to Articles 9(c), 9(d), and 13 will be effective if Item 5, "Proposal to Amend the Company's Articles of Incorporation to Eliminate Supermajority Voting Provisions," receives the vote of at least 80 percent of the outstanding shares. Additions are indicated by underlining and deletions are indicated by strike-outs. The full text of the company's Articles of Incorporation can be found on our website at: https://www.lilly.com/who-we-are/governance.

. . . . .

9. The following provisions are inserted for the management of the business and for the conduct of the affairs of the Corporation, and it is expressly provided that the same are intended to be in furtherance and not in limitation or exclusion of the powers conferred by statute:

(a) The number of directors of the Corporation, exclusive of directors who may be elected by the holders of any one or more series of Preferred Stock pursuant to Article 7(b) (the "Preferred Stock Directors"), shall not be less than nine, the exact number to be fixed from time to time solely by resolution of the Board of Directors, acting by not less than a majority of the directors then in office.

(b) Prior to the 2020 annual meeting of directors, the Board of Directors (exclusive of Preferred Stock Directors) shall be divided into three classes, with the term of office of one class expiring each year. ~~At the annual meeting of shareholders in 1985, five directors of the first class shall be elected to hold office for a term expiring at the 1986 annual meeting, five directors of the second class shall be elected to hold office for a term expiring at the 1987 annual meeting, and six directors of the third class shall be elected to hold office for a term expiring at the 1988 annual meeting.~~ Commencing with the annual meeting of shareholders in ~~1986~~2020, each class of directors whose term shall then expire shall be elected to hold office for a ~~three~~one-year term expiring at the next annual meeting of shareholders. In the case of any vacancy on the Board ~~of Directors including a vacancy created by an increase in the number~~ of Directors, the vacancy shall be filled by election of the Board of Directors with the director so elected to serve for the remainder of the term of the director being replaced or, in the case of an additional director, ~~for the remainder of the term of the class to which the director has been assinged.~~ until the next annual meeting of shareholders. All directors shall continue in office until the election and qualification of their respective successors in office. ~~When the number of directors is changed, any newly created directorships or any decrease in directorships shall be so assigned among the classes by a majority of the directors then in office, though less than a quorum, as to make all classes as nearly equal in number as possible.~~ No decrease in the number of directors shall have the effect of shortening the term of any incumbent director. Election of directors need not be by written ballot unless the By-laws so provide.

(c) Any director or directors (exclusive of Preferred Stock Directors) may be removed from office at any time, but only for cause and only by the affirmative vote of ~~at least 80%~~a majority of ~~the~~ votes ~~entitled to be~~cast by the holders ~~of all the outstanding shared~~ of Voting Stock (as defined in Article 13 hereof), voting together as a single class.

(d) ~~Notwithstanding any other provision of these Amended Articles of Incorporation or of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class of Voting Stock required by law or these Amended Articles of Incorporation, the affirmative vote of at least 80% of the votes entitled to be cast by holders of all the outstanding shares of Voting Stock, voting together as a single class, shall be required to alter, amend or repeal this Article 9.~~

13. In addition to all other requirements imposed by law and these Amended Articles ~~and except as otherwise expressly provided in paragraph (c) of this Article 13~~, none of the actions or transactions listed in paragraph (a) below shall be effected by the Corporation, or approved by the Corporation as a shareholder of any majority-owned subsidiary of the Corporation if, as of the record date for the determination of the shareholders entitled to vote thereon, any Related Person (as hereinafter defined) exists, unless the applicable requirements of paragraphs (b), (c), (d), ~~(e)~~, and (~~f~~e) of this Article 13 are satisfied.

(a) The actions or transactions within the scope of this Article 13 are as follows:

(i) any merger or consolidation of the Corporation or any of its subsidiaries into or with such Related Person;

(ii) any sale, lease, exchange, or other disposition of all or any substantial part of the assets of the Corporation or any of its majority-owned subsidiaries to or with such Related Person;

(iii) the issuance or delivery of any Voting Stock (as hereinafter defined) or of voting securities of any of the Corporation's majority-owned subsidiaries to such Related Person in exchange for cash, other assets or securities, or a combination thereof;

(iv) any voluntary dissolution or liquidation of the Corporation;

(v) any reclassification of securities (including any reverse stock split), or recapitalization of the Corporation, or any merger or consolidation of the Corporation with any of its subsidiaries, or any other transaction (whether or not with or otherwise involving a Related Person) that has the effect, directly or indirectly, of increasing the proportionate share of any class or series of capital stock of the Corporation, or any securities convertible into capital stock of the Corporation or into equity securities of any subsidiary, that is beneficially owned by any Related Person; or

(vi) any agreement, contract, or other arrangement providing for any one or more of the actions specified in the foregoing clauses (i) through (v).

(b) The actions and transactions described in paragraph (a) of this Article 13 shall have been authorized by the affirmative vote of ~~at least 80% of all~~a majority of the votes entitled to be cast by holders of all the outstanding shares of Voting Stock, voting together as a single class.

~~(c) Notwithstanding paragraph (b) of this Article 13, the 80% voting requirement shall not be applicable if any action or transaction specified in paragraph (a) is approved by the Corporation's Board of Directors and by a majority of the Continuing Directors (as hereinafter defined).~~

~~(d~~ (c) Unless approved by a majority of the Continuing Directors, after becoming a Related Person and prior to consummation of such action or transaction.:

(i) the Related Person shall not have acquired from the Corporation or any of its subsidiaries any newly issued or treasury shares of capital stock or any newly issued securities convertible into capital stock of the Corporation or any of its majority-owned subsidiaries, directly or indirectly (except upon conversion of convertible securities acquired by it prior to becoming a Related Person or as a result of a pro rata stock dividend or stock split or other distribution of stock to all shareholders pro rata);

(ii) such Related Person shall not have received the benefit directly or indirectly (except proportionately as a shareholder) of any loans, advances, guarantees, pledges, or other financial assistance or tax credits provided by the Corporation or any of its majority-owned subsidiaries, or made any major changes in the Corporation's or any of its majority-owned subsidiaries' businesses or Corporation's capital stock below the rate in effect immediately prior to the time such Related Person became a Related Person; and

(iii) such Related Person shall have taken all required actions within its power to ensure that the Corporation's Board of Directors included representation by Continuing Directors at least proportionate to the voting power of the shareholdings of Voting Stock of the Corporation's Remaining Public Shareholders (as hereinafter defined), with a Continuing Director to occupy an additional Board position if a fractional right to a director results and, in any event, with at least one Continuing Director to serve on the Board so long as there are any Remaining Public Shareholders.

(ed) A proxy statement responsive to the requirements of the Securities Exchange Act of 1934, as amended, whether or not the Corporation is then subject to such requirements, shall be mailed to the shareholders of the Corporation for the purpose of soliciting shareholder approval of such action or transaction and shall contain at the front thereof, in a prominent place, any recommendations as to the advisability or inadvisability of the action or transaction which the Continuing Directors may choose to state and, if deemed advisable by a majority of the Continuing Directors, the opinion of an investment banking firm

selected by a majority of the Continuing Directors as to the fairness (or not) of the terms of the action or transaction from a financial point of view to the Remaining Public Shareholders, such investment banking firm to be paid a reasonable fee for its services by the Corporation. The requirements of this paragraph (~~e~~d) shall not apply to any such action or transaction which is approved by a majority of the Continuing Directors.

(~~f~~e) For the purpose of this Article 13

(i) the term "Related Person" shall mean any other corporation, person, or entity which beneficially owns or controls, directly or indirectly, 5% or more of the outstanding shares of Voting Stock, and any Affiliate or Associate (as those terms are defined in the General Rules and Regulations under the Securities Exchange Act of 1934) of a Related Person; provided, however, that the term Related Person shall not include (a) the Corporation or any of its subsidiaries, (b) any profit-sharing, employee stock ownership or other employee benefit plan of the Corporation or any subsidiary of the Corporation or any trustee of or fiduciary with respect to any such plan when acting in such capacity, or (c) Lilly Endowment, Inc.; and further provided, that no corporation, person, or entity shall be deemed to be a Related Person solely by reason of being an Affiliate or Associate of Lilly Endowment, Inc.;

(ii) a Related Person shall be deemed to own or control, directly or indirectly, any outstanding shares of Voting Stock owned by it or any Affiliate or Associate of record or beneficially, including without limitation shares

a. which it has the right to acquire pursuant to any agreement, or upon exercise of conversion rights, warrants, or options, or otherwise or

b. which are beneficially owned, directly or indirectly (including shares deemed owned through application of clause a. above), by any other corporation, person, or other entity with which it or its Affiliate or Associate has any agreement, arrangement, or understanding for the purpose of acquiring, holding, voting, or disposing of Voting Stock, or which is its Affiliate (other than the Corporation) or Associate (other than the Corporation);

(iii) the term "Voting Stock" shall mean all shares of any class of capital stock of the Corporation which are entitled to vote generally in the election of directors;

(iv) the term "Continuing Director" shall mean a director who is not an Affiliate or Associate or representative of a Related Person and who was a member of the Board of Directors of the Corporation immediately prior to the time that any Related Person involved in the proposed action or transaction became a Related Person or a director who is not an Affiliate or Associate or representative of a Related Person and who was nominated by a majority of the remaining Continuing Directors; and

(v) the term "Remaining Public Shareholders" shall mean the holders of the Corporation's capital stock other than the Related Person.

(~~g~~f) A majority of the Continuing Directors of the Corporation shall have the power and duty to determine for the purposes of this Article 13, on the basis of information then known to the Continuing Directors, whether (i) any Related Person exists or is an Affiliate or an Associate of another and (ii) any proposed sale, lease, exchange, or other disposition of part of the assets of the Corporation or any majority-owned subsidiary involves a substantial part of the assets of the Corporation or any of its subsidiaries. Any such determination by the Continuing Directors shall be conclusive and binding for all purposes.

(~~h~~g) Nothing contained in this Article 13 shall be construed to relieve any Related Person or any Affiliate or Associate of any Related Person from any fiduciary obligation imposed by law.

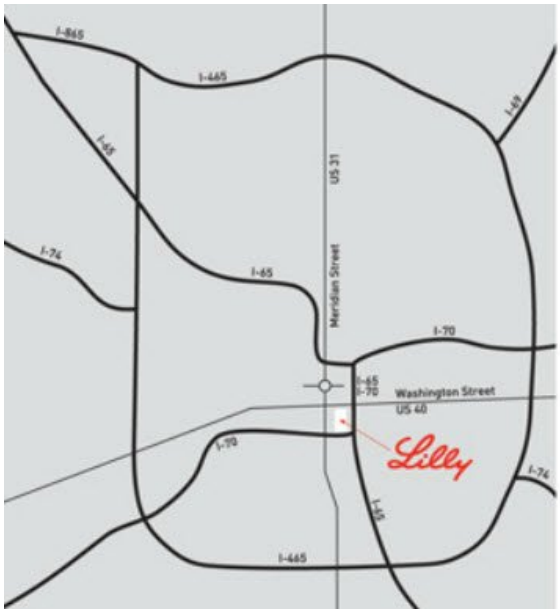
(~~i~~h) The fact that any action or transaction complies with the provisions of this Article 13 shall not be construed to waive or satisfy any other requirement of law or these Amended Articles of Incorporation or to impose any fiduciary duty, obligation, or responsibility on the Board of Directors or any member thereof, to approve such action or transaction or recommend its adoption or approval to the shareholders of the Corporation, nor shall such compliance limit, prohibit, or otherwise restrict in any manner the Board of Directors, or any member thereof, with respect to evaluations of or actions and responses taken with respect to such action or transaction. The Board of Directors of the Corporation, when evaluating any actions or transactions described in paragraph (a) of this Article 13, shall, in connection with the exercise of its judgment in determining what is in the best interests

of the Corporation and its shareholders, give due consideration to all relevant factors, including without limitation the social and economic effects on the employees, customers, suppliers, and other constituents of the Corporation and its subsidiaries and on the communities in which the Corporation and its subsidiaries operate or are located.

~~(j) Notwithstanding any other provision of these Amended Articles of Incorporation or of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class of Voting Stock required by law or these Amended Articles of Incorporation, the affirmative vote of the holders of at least 80% of the votes entitled to be cast by holders of all the outstanding shares of Voting Stock, voting together as a single class, shall be required to alter, amend, or repeal this Article 13.~~

Directions and Parking

From I-70 take Exit 79B; follow signs to McCarty Street. Turn right (east) on McCarty Street; go straight into Lilly Corporate Center. You will be directed to parking. Parking will be available on a first-come, first-served basis in the garage. Entrance to the Lilly Center Auditorium is adjacent to the parking garage.



Corporate Information

ANNUAL MEETING

The annual meeting of shareholders will be held at the **Lilly Center Auditorium, Lilly Corporate Center, Indianapolis, Indiana, on Monday, May 6, 2019, at 11:00 a.m. EDT.** For more information, see the proxy statement section of this report.

10-K AND 10-Q REPORTS

Paper copies of the company's annual report to the Securities and Exchange Commission on Form 10-K and quarterly reports on Form 10-Q are available upon written request to:

ELI LILLY AND COMPANY
c/o Corporate Secretary
Lilly Corporate Center
Indianapolis, Indiana 46285

To access these reports more quickly, you can find all of our SEC filings online at: **investor.lilly.com/sec.cfm.**

STOCK LISTINGS

Eli Lilly and Company common stock is listed on the New York Stock Exchange and NYSE Euronext. NYSE ticker symbol: LLY. Most newspapers list the stock as "Lilly (Eli) and Co."

CEO AND CFO CERTIFICATES

The company's chief executive officer and chief financial officer have provided all certifications required under Securities and Exchange Commission regulations with respect to the financial information and disclosures in this report. The certifications are available as exhibits to the company's Form 10-K and 10-Q reports.

In addition, the company's chief executive officer has filed with the New York Stock Exchange a certification to the effect that, to the best of his knowledge, the company is in compliance with all corporate governance listing standards of the Exchange.

TRANSFER AGENT AND REGISTRAR

EQ SHAREOWNER SERVICES

Mailing Address:

EQ SHAREOWNER SERVICES
P.O. Box 64854
St. Paul, Minnesota 55164-0854

Overnight Address:

EQ SHAREOWNER SERVICES
1110 Centre Pointe Curve, Suite 101
Mendota Heights, Minnesota 55120-4100

Telephone: 1-800-833-8699
E-mail: stocktransfer@eq-us.com
Internet: www.shareowneronline.com

DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN

EQ Shareowner Services administers the Shareowner Service Plus Plan, which allows registered shareholders to purchase additional shares of Lilly common stock through the automatic investment of dividends. The plan also allows registered shareholders and new investors to purchase shares with cash payments, either by check or by automatic deductions from checking or savings accounts. The minimum initial investment for new investors is $1,000. Subsequent investments must be at least $50. The maximum cash investment during any calendar year is $150,000. Please direct inquiries concerning the Shareowner Service Plus Plan to:

EQ SHAREOWNER SERVICES
P.O. Box 64856
St. Paul, Minnesota 55164-0856
Telephone: 1-800-833-8699

ONLINE DELIVERY OF PROXY MATERIALS

Shareholders may elect to receive annual reports and proxy materials online. This reduces paper mailed to the shareholder's home and saves the company printing and mailing costs. To enroll, go to **investor.lilly.com/services.cfm** and follow the directions provided.

ELI LILLY AND COMPANY

LILLY CORPORATE CENTER
INDIANAPOLIS, INDIANA 46285 USA
317.276.2000 • LILLY.COM