

## GE and Lilly Achieve Significant Advancement in Cancer Research

- Companies develop technology to visualize and map complex biomarker networks
- Discovery could enable faster drug development at less cost, provide more personalized therapies
- Extension of molecular pathology research agreement planned

**New York, NY and Indianapolis, IN - October 21, 2009 -** Scientists at GE Global Research (NYSE: GE), and researchers at Eli Lilly and Company (NYSE: LLY) today announced a significant advancement in cancer research resulting from the two companies' collaboration formed in October 2007.

Working together, the research teams have developed tissue-based biomarker technology that for the first time can simultaneously map more than 25 proteins in tumors at the sub-cellular level, an important step in the development of personalized and more effective cancer treatments. GE Chairman and CEO, Jeff Immelt, made the announcement this morning during a news conference at GE's Healthymagination Showcase in New York.

Currently, a diagnosis of cancer and the decision of which therapy to prescribe are based on the histology of the tumor and, in some cases, the expression of just one or two biomarkers inside the patient's tumor. With this new molecular pathology technology developed in GE's Biosciences laboratories, researchers can now look at a visual map of the tissue sample, seeing a cancer cell's comprehensive biomarker signaling pathway, and the interplay of signaling networks inside the tumor. To date, the new technology has been tested successfully on colon and prostate cancer tissue samples and is believed to be applicable to all types of cancer.

Mapping a tumor's complex biomarker network could allow researchers involved in drug discovery and the clinicians making treatment decisions to identify the most effective cancer therapies for patients, while avoiding those that are not as effective, saving time, money and providing a better patient experience.

"This new approach to molecular pathology unlocks information that has been hidden from doctors," said Mark Little, senior vice president and director, GE Global Research. "It was just two years ago that researchers at GE and Lilly set out to discover key protein biomarkers that would predict the likelihood that a medication would be effective in treating certain cancers. Our new mapping technology is designed to bring new therapies to market faster and to make sure that the right patients get the right medicines."

GE researchers with specialties in biology, bioinformatics, optics, fluidics, chemistry and mechanical engineering have built a prototype system capable of staining, washing and re-staining tissue samples for study under a digital microscope. The system combines image analysis of cancerous cells and structures with GE's patented visualization tools to provide a color map of protein concentrations within the sample.

"In cancer treatment, information is one of the most powerful tools that a doctor has at his disposal," explained Dr. Richard Gaynor, vice president, cancer research and clinical investigation, Lilly Research Laboratories. "By identifying multiple biomarkers on a cell by cell basis, physicians will be able to make more informed choices on therapies to prescribe, as well as therapies to avoid, based on a patient's specific type of cancer. Additionally, we believe that GE's technology, advanced as a result of this collaboration, may lead to the ability to identify the stem cells within a tumor that we believe control the cancer. In doing so, we may be able to discover even more innovative, targeted therapies for the treatment of patients with cancer."

In May, GE launched Healthymagination, which is built on the global commitments of reducing costs, improving quality and expanding access to healthcare for millions of people. Technology development programs at GE Global Research, including the molecular pathology initiative, are aligned with this mission.

As the world becomes more educated and advanced in molecular medicine, the healthcare industry is experiencing a growing convergence of therapeutics and diagnostics. By using the advanced molecular pathology imaging tools developed in this collaboration, companies like Lilly can use the complex molecular signatures within patient tumors to design clinical research programs to study if these biomarkers can predict which patients are most likely to respond to a particular targeted therapy. Selecting the proper patients early, using these advanced technologies, could reduce the patient population sizes necessary for conducting clinical trials and will substantially shorten clinical development timelines. In turn, these changes should also lead

to a reduction in the cost of drug development.

At today's news conference, GE and Lilly representatives also announced plans to extend their research agreement to include the study of four Lilly oncology molecules that are currently in the company's development pipeline. While the technology is expected to help in the analysis of all cancers, the two companies will perform specific investigations in breast, ovarian, lung, and possibly gastric cancers.

## About GE Global Research

GE Global Research is one of the world's most diversified industrial research labs, providing innovative technology for all of GE's businesses. Global Research has been the cornerstone of GE technology for more than 100 years, developing breakthrough innovations in areas such as medical imaging, energy generation technology, jet engines and lighting. GE Global Research is headquartered in Niskayuna, New York and has facilities in Bangalore, India, Shanghai, China and Munich, Germany. Visit GE Global Research at <a href="http://www.ge.com/research">www.ge.com/research</a>.

## About Lilly

Lilly, a leading innovation-driven corporation, is developing a growing portfolio of best-in-class pharmaceutical products by applying the latest research from its own worldwide laboratories and from collaborations with eminent scientific organizations. Headquartered in Indianapolis, Ind., Lilly provides answers - through medicines and information - for some of the world's most urgent medical needs. Additional information about Lilly is available at <u>www.lilly.com</u>.

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