



Newly Published Phase III Study Shows Arzoxifene Significantly Increased Bone Mineral Density

Indianapolis, Ind. - Phase III data, published online this week in the *Journal of Clinical Endocrinology & Metabolism*, showed that arzoxifene, an investigational selective estrogen receptor modulator (SERM) being developed by Eli Lilly and Company (NYSE: LLY), significantly increased lumbar spine and total hip bone mineral density (BMD) in postmenopausal women with normal or low bone mass, versus placebo.

In addition, arzoxifene, dosed at 20 mg/day, decreased biochemical markers of bone turnover, and showed a neutral effect on the uterus and endometrium.

"It is encouraging that arzoxifene showed the potential of bone loss prevention, with significant gains in BMD in the spine and hip areas in postmenopausal women in this study," said lead investigator Michael Bolognese, M.D., Bethesda Health Research Center in Bethesda, Maryland. "I am pleased with the results from this study and believe that arzoxifene at 20 mg/day may be a therapeutic option worthy of continued development."

Arzoxifene is being studied for the prevention and treatment of osteoporosis in postmenopausal women and the reduction of risk of invasive breast cancer in postmenopausal women with osteoporosis or low bone mass.

These data are from the "FOUNDATION" Study, one of three Phase III trials for arzoxifene. In March, data from the second Phase III trial called "NEXT" study were presented at the European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ECCEO) annual meeting. The third Phase III trial, the "GENERATIONS" Study, is a five-year, randomized, double-blind, placebo-controlled study assessing the effects of arzoxifene on vertebral fracture incidence and on invasive breast cancer incidence in postmenopausal women with osteoporosis or with low bone density. Results from that trial are anticipated in late 2009.

About the "FOUNDATION" study

Effects of Arzoxifene on Bone Mineral Density and Endometrium in Postmenopausal Women with Normal or Low Bone Mass

In this Phase III, double-blind, two-year, multi-center trial, 331 postmenopausal women with normal or low bone mass were randomized to receive arzoxifene 20 mg/day or placebo. All subjects received elemental calcium 500 mg/day. The study's primary endpoints were change in lumbar spine and total hip BMD, and endometrial safety measured by endometrial histology.

The study included women who were at least two years postmenopausal and between the ages of 45 and 60 with an intact uterus. Subjects' femoral neck or lumbar spine T-scores were between 0 and -2.5, and they did not have pre-existing spine fractures.

24-month results included:¹

- Arzoxifene significantly increased the lumbar spine BMD by 2.9% vs placebo (arzoxifene, 1.6%; placebo, -1.3%, $p < 0.001$); and total hip BMD by 2.2% vs placebo (arzoxifene 1.1%; placebo, -1.1%, $p < 0.001$).
- Arzoxifene significantly decreased biochemical marker of bone resorption C-terminal cross-linking telopeptide of type I collagen (CTX, arzoxifene -30.01 percent, placebo 3.79 percent; $p < 0.001$); and biochemical marker of bone formation serum N-terminal propeptide of type I collagen (PINP, arzoxifene -38.81 percent, placebo -10.27 percent; $p < 0.001$).
- There was no significant difference overall in the number of subjects reporting adverse events in the arzoxifene group compared with the placebo group, with the exception of vaginal yeast infection (arzoxifene 4%, placebo 0%, $p = 0.02$).
- New or worsening hot flashes were not significantly different between the arzoxifene and placebo groups (arzoxifene 12%, placebo 11%, $p = 0.87$).
- There were no significant differences in the incidence of endometrial hyperplasia or cancer between the arzoxifene and placebo groups, as assessed by serial endometrial biopsy (arzoxifene 0, placebo 2) or in endometrial thickness, as assessed by transvaginal ultrasound.
- There were no deaths or venous thromboembolic events.

"We are pleased with the outcomes of this study," said Adrien Sipos, M.D., Ph.D., medical director for Eli Lilly and Company. "As

a company, we are committed to research that will help us offer patients new treatment options and further advance understanding of how to best prevent and treat osteoporosis, a disease which negatively impacts more than 200 million people worldwide."²

Osteoporosis is a disease in which bones become fragile and more likely to break. Primary osteoporosis, which is deterioration of bone mass that is unassociated with other chronic illness, is related to aging and decreased ovarian function, including menopause. If not prevented, or if left untreated, osteoporosis can progress painlessly until a bone breaks. According to the International Osteoporosis Foundation, 30 to 50 percent of women will suffer a fracture related to osteoporosis in their lifetime.³

About Lilly

Lilly, a leading innovation-driven corporation, is developing a growing portfolio of first-in-class and 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 www.lilly.com.

P-LLY

Forward Looking Statement

This press release contains forward-looking statements about the safety and efficacy of arzoxifene and reflects Lilly's current beliefs. However, as with any pharmaceutical product, there are substantial risks and uncertainties in the process of development and commercialization. There is no guarantee that arzoxifene will become commercially successful. For further discussion of these and other risks and uncertainties, see Lilly's filings with the United States Securities and Exchange Commission. Lilly undertakes no duty to update forward-looking statements.

¹ Journal of Clinical Endocrinology and Metabolism Web site. April 7, 2009.

² Cooper C. Epidemiology of Osteoporosis. Osteoporosis Intl 1999;9 (Suppl2): S2-8.

³ International Osteoporosis Foundation. Facts and Statistics About Osteoporosis and its Impact. Available at: <http://www.iofbonehealth.org/facts-and-statistics.html#factsheet-category-17>. Accessed January 26, 2009.