



spotlight on health

Developing New Osteoporosis Treatments

(NAPSA)—There is encouraging news for the estimated 44 million people in the U.S. affected by osteoporosis, a condition characterized by low bone mass and fragility. In fact, new treatment options are helping reduce the risk of fracture and disability associated with the disease.

Osteoporosis is responsible for 1.5 million fractures per year, with \$17 billion spent annually in the U.S. for medical costs of treating osteoporosis-related fractures. One out of every two women over the age of 50 will have an osteoporosis-related fracture in her lifetime.

Until recently, most treatments for osteoporosis—bisphosphonates, estrogen therapies and calcium supplementation—were focused primarily on only slowing bone loss. However, new developments and delivery methods may offer improved treatment options and hope for patients. For example, a drug called parathyroid hormone (PTH) is currently being developed to actually rebuild the bone mass lost due to the effects of osteoporosis.

Unigene Laboratories (OTCBB: UGNE) and GlaxoSmithKline (NYSE: GSK) are jointly developing an oral formulation of PTH. In a landmark \$150 million licensing collaboration, the companies hope to target a market estimated in excess of \$1 billion. An injectable form of the drug to be marketed by Lilly, received an approvable letter from the FDA last year.

In addition, a drug called calcitonin has the most favorable safety profile of any currently marketed osteoporosis drug and has been shown to reduce bone pain. Calcitonin is currently avail-



New drug delivery methods may offer increased hope for osteoporosis patients.

able in the United States in a nasal delivery system. Unigene's oral form of calcitonin has undergone early clinical testing and is considered an effective method for delivering calcitonin into the bloodstream; such a medication would be expected to have a nearly \$1 billion worldwide market share.

Unigene's calcitonin is already being sold in injectable form in Europe and China for the treatment of osteoporosis and/or Paget's disease and hypercalcemia.

Unigene is a biopharmaceutical company focusing on the oral and nasal delivery of large-market peptide drugs as an alternative to injectable forms of these drugs. Due to the size of the worldwide osteoporosis market, the company is targeting its initial efforts on developing calcitonin and PTH-based therapies. Unigene's patented oral delivery technology has successfully delivered, in preclinical and/or clinical trials, various peptides including calcitonin, PTH and insulin.