

Zafgen Appoints Industry Executive Dennis Kim, M.D., M.B.A., to Chief Medical Officer

CAMBRIDGE, Mass., Sept. 21, 2011 – Zafgen, Inc., a pharmaceutical company pioneering novel obesity therapeutics to help the body regain and sustain a lean, healthy state by targeting imbalances in fat metabolism, today announced the appointment of Dennis Kim, M.D., M.B.A., to the position of chief medical officer. In this newly created position, Dr. Kim will assume primary responsibility for Zafgen's clinical development, including clinical and regulatory strategy, trial design and oversight of the company's virtual clinical team.

"An endocrinologist by training, Dennis brings to Zafgen a unique skill set of clinical, regulatory and business development experience in the fields of obesity, endocrinology, diabetes and metabolism," said Thomas Hughes, Ph.D., president and chief executive officer, Zafgen, Inc. "Dennis has an impressive track record at several leading companies focused on the treatment of metabolic disease and obesity like Amylin Pharmaceuticals and Orexigen Therapeutics. We look forward to leveraging his expertise as we advance the development of beloranib, our lead methionine aminopeptidase 2 (MetAP2) inhibitor, for the treatment of severe obesity."

Dr. Kim is a board-certified endocrinologist and brings to the company more than 10 years of experience in the biotech and medical technology industries. Prior to joining Zafgen, Dr. Kim held multiple senior-level clinical and corporate affairs positions at Orexigen Therapeutics, a biopharmaceutical company focused on the treatment of obesity, including senior vice president, head of obesity/metabolic diseases; senior vice president, corporate development; and senior vice president, medical affairs and communications. Prior to Orexigen, he was chief medical officer and vice president of medical affairs at EnteroMedics, Inc., where he oversaw all aspects of clinical affairs and successfully implemented an initial public offering as part of the executive team in 2007. Previously, he spent seven years in positions of increasing responsibility at Amylin Pharmaceuticals, Inc., most recently as executive director, corporate strategy, where he managed corporate and business strategic planning spanning all commercial products, developmental drug candidates, corporate alliance partnership and manufacturing support. While at Amylin, Dr. Kim was also the lead physician for exenatide (BYETTA®), an FDA-approved therapy for type 2 diabetes, where he directed Phase 2 through 4 development and commercialization. Currently, Dr. Kim is an assistant professor of medicine, division of endocrinology/metabolism, at the University of California, San Diego (UCSD) School of Medicine and San Diego Veteran'sAdministration Healthcare Systems. He holds an M.D. from the University of Health Sciences, The Chicago Medical School, an M.B.A. from the UCSD Rady School of Management and a B.S. in biology from the University of California at Los Angeles.

"Approximately one-third of Americans are obese, and thus there exists a tremendous unmet medical need for effective obesity therapies in both the U.S. and worldwide," said Dr. Kim. "Zafgen has a potentially transformative approach to treating obesity by targeting imbalances in fat metabolism. Phase 1 findings for the company's MetAP2 inhibitor treatment demonstrate that the compound rapidly reduces body weight and has a strong safety and tolerability profile in patients with severe obesity. I look forward to working with Zafgen's management and scientific advisers as we prepare to begin Phase 2 studies of this promising treatment."

About MetAP2 Inhibition and Beloranib

MetAP2 inhibitor treatment has emerged as a new peripheral mechanism driving rapid and substantial weight loss and improvements in cardio metabolic risk factors. MetAP2 inhibitors have the potential to be the first new class of obesity therapeutics to provide the severe obese population with significant weight loss efficacy. Zafgen's lead molecule is being developed as a twice-weekly subcutaneous injection for severe obesity. The company expects to enter Phase 2 trials in obese patients and obese diabetic patients in early 2012. Zafgen is also developing new compounds suitable for oral administration for use in broader indications as part of its second generation program. Beloranib hemioxalate was initially developed by CKD Pharmaceuticals. The molecule was originally profiled for efficacy in the treatment of solid tumors.

About Obesity

Obesity continues to be one of the world's most costly and underserved growing medical conditions. It is a complex condition with numerous causes, many of which are largely beyond an individual's control¹. There exists a tremendous unmet medical need for effective drug therapies to treat this serious disease, which has reached epidemic proportions and is increasing at an alarming rate. Obesity leads to many serious health consequences. As BMI increases, so does one's risk for chronic diseases such as cardiovascular disease, diabetes, musculoskeletal disorders and some cancers². Currently available weight loss treatments function by blocking fat absorption or signalling feelings of fullness or diminished appetite in the brain. These drugs are often associated with undesirable side effects and limited efficacy that fails to provide sustainable weight loss in many patients.

According to a recent Gallup poll, Americans are making no progress in the fight against obesity, with a slight increase in obesity rates across all key demographic groups between January 1, 2008 through April 30, 2010. The study found that adult

obesity rates did not decrease between 2009 and 2010, with the rate of obesity remaining stable at 26.7 percent in the first quarter of 2010, compared to 26.2 percent in the last quarter of 2009, and that fewer Americans are maintaining a "normal" weight as measured by BMI³.

About Zafgen, Inc.

Zafgen is pioneering novel obesity therapeutics that directly target fat metabolism to help the body regain and sustain a lean, healthy state. The company's approach focuses on restoring control of key metabolic processes, releasing stored fat which then is used by the body as fuel. Zafgen's first generation product, beloranib, is being studied for use as a pharmacological alternative to bariatric surgery in the treatment of severe obesity. Zafgen's leadership and scientific advisors include leading experts in obesity, metabolic disorders and medicinal chemistry. Founded in 2005, the company is located in Cambridge, Mass. For more information, visit www.zafgen.com.