

Groundbreaking Approach to Treating Obesity Highlighted by Keynote Lecture at American Diabetes Association Annual Scientific Sessions

Zafgen Scientific Advisory Board Member and Pioneering Researcher Dr. Randy J. Seeley Underscores the Active Role of Adipose Vasculature in Metabolic Disease

CAMBRIDGE, MA, June 8, 2009 – Zafgen, Inc., a private venture-backed biopharmaceutical company focused on developing novel obesity therapeutics, today announced that Randy J. Seeley, Ph.D., professor of psychiatry and associate director for the Metabolic Disease Institute at the University of Cincinnati College of Medicine, and a member of Zafgen's scientific advisory board, will deliver a keynote lecture during the American Diabetes Association's (ADA) 69th Annual Scientific Sessions, being held June 5-9 in New Orleans. Dr. Seeley's lecture will highlight the nature and function of adipose (fat) tissue as a significant determinant of obesity, and a groundbreaking approach to developing novel obesity therapeutics that directly targets adipose vasculature to shrink fat cells and help the body sustain a lean, healthy state.

Dr. Seeley will present his keynote address, titled "How Obesity Goes to Our Head – Novel Aspects of How Adipose Tissue Communicates with the Central Nervous System," as the recipient of the ADA's Outstanding Scientific Achievement Award (OSAA) during an awards ceremony that begins at 10:15 a.m. (CT) on Monday, June 8. The annual ADA awards for highest scientific achievement, including the OSAA, are supported by an educational grant from Eli Lilly and Company. Dr. Seeley's lecture will highlight the interdependence between adipose blood vessel formation (or reduction) and weight gain (or loss). His leading-edge research adds to a growing body of evidence that shows body weight to be closely regulated by interaction with and signaling to the brain from adipose tissue. Zafgen is pursuing these key scientific concepts to advance obesity drug candidates into clinical development.

"We extend our congratulations to Randy on receiving this prestigious and well-deserved achievement award. As a contributing member of Zafgen's scientific advisory board, Randy's expertise has been instrumental as we pursue new treatments for obesity," commented Thomas Hughes, Ph.D., president and chief executive officer of Zafgen, Inc. "We have a shared view that obesity is a disease with a number of potentially treatable biological causes. We see adipose tissue as a complex contributor to the disease, as evidenced by Randy's research. Because adipose tissue contains many blood vessels and comprises cells that work to store calories, we believe it can be successfully manipulated by agents that control its blood supply, driving loss of fat mass and weight. We continue to apply remarkable scientific insights from Randy and other leading experts, as we advance our lead molecules toward clinical testing with the goal of delivering a breakthrough treatment for obesity."

Dr. Seeley's research is complementary to that conducted by Zafgen co-founder, Maria Rupnick, M.D., cardiologist at Brigham and Women's Hospital and instructor of medicine at Harvard Medical School, whose work underscores the critical dependency of fat tissue growth on neovascularization and demonstrates that the size of adipose tissue, in particular, can be regulated through angiogenic therapy.

Dr. Seeley commented, "I'm honored to be presenting my research at the ADA Scientific Sessions, and am hopeful that these findings will contribute to the development of new therapies that can control obesity, and co-morbidities such as type 2 diabetes, by altering the function of fat tissue and/or the signaling between fat tissue and the brain. I look forward to continuing advising Zafgen – the first biopharmaceutical company dedicated to developing obesity therapeutics based on vascular targeting – and to contributing further insights to this fascinating area of research."

There currently exists a tremendous unmet medical need for effective drug therapies to treat obesity, which has reached epidemic proportions and is growing at an alarming rate. Obesity currently affects approximately 72 million Americans, over 30 percent of the U.S. adult population, and 400 million people worldwide. Further, obesity plays a major role in other diseases, such as type 2 diabetes, hypertension, coronary heart disease, stroke, and cancer, compounding the urgency for new and effective treatment options. The presently-available weight loss treatments, which function by blocking fat absorption or signaling feelings of fullness or diminished appetite in the brain, suffer from undesirable side effects and limited efficacy that fails to provide sustainable weight loss in many patients.

About Zafgen, Inc.

Zafgen is the first biopharmaceutical company dedicated to developing novel obesity therapeutics that directly target and shrink fat tissue to help the body regain and sustain a lean, healthy state. Adipose tissue (fat) is composed primarily of cells that store unused calories, as well as an extensive network of blood vessels that support the tissue. The nature of the tissue and the interplay between fat cells and the supporting blood vessels play a critical and active role in determining the overall size of the fat tissue, and therefore, an individual's weight. Zafgen's groundbreaking approach targets obesity at its root cause by safely manipulating and shrinking the blood supply to fat tissue, driving the loss of fat and a return to a more healthy body

weight. Zafgen's leadership and scientific advisors include the leading experts in obesity, metabolic disorders and medicinal chemistry. Founded in 2005, the company is located in Cambridge, Massachusetts. For more information, visit www.zafgen.com.