



**FOR IMMEDIATE RELEASE:**

## **Transposagen Creates a Rat Model of the Human Immune System**

*SCID Rat Seen as Superior Cancer and Transplantation Model*

Lexington, Kentucky, August 6, 2009 - [Transposagen Biopharmaceuticals, Inc.](#) based in Lexington, KY announced today that its scientists and collaborators from the Medical College of Wisconsin have created and characterized the world's first rat model of severe combined immunodeficiency, or SCID. The Transposagen rat has a nearly complete lack of the major components of the immune system. Transposagen will be marketing SCID rats to pharmaceutical and biotechnology companies. "Transposagen is pleased to have characterized the world's first rat model of SCID. We now have intellectual property covering the SCID phenotype in rat and will be offering the SCID rat and other rat models of the immune system in the near future," said [Dr. Eric Ostertag](#), CEO of Transposagen.

SCID can also affect humans, such as the "Bubble Boy", who had to live inside of a sterile environment to reduce the likelihood of contracting a fatal infection. The SCID mouse has been one of the most often used animal models in the history of drug discovery and development research. Transposagen's SCID rats are characterized by a deficiency of T-cells, B-cells and NK-cells, some of the white blood cells necessary to prevent invasive bacteria and viruses from causing serious disease. "This new immune deficiency rat model cannot reject transplanted tissues, even from other species, and will be especially important in cancer and transplantation research," said Dr. Ostertag.

Rat models are superior to mouse models for testing the pharmacodynamics and toxicity of potential therapeutic compounds. This is partially because the number and type of many of the rat's detoxifying enzymes are very similar to those in humans. Rats are also better models than mice for specific disease categories including human cardiovascular disease, diabetes, arthritis, and many autoimmune, neurological and behavioral disorders.

Transposagen has exclusive worldwide licensing rights to create [TKO™ Knockout Rat Models](#) using a variety of mobile DNA technologies. Knockout rats are pharmaceutical research models with single gene disruptions that mimic human diseases. Transposagen's goal is to produce 30,000 unique knockout rat lines to represent each gene in the rat genome. Transposagen is also creating a cryo-preserved sperm repository and a tissue bank from all of the knockout rats it produces.

About Transposagen Biopharmaceuticals:

[Transposagen Biopharmaceuticals, Inc.](#), a Lexington, KY based company, is the worldwide leader in the creation of unique genetically modified rat models. These models mimic human diseases and are used for drug discovery and development research. The production of animal models for research is a \$1.2 billion/year market and the genetically modified animal market is

Transposagen Press Release

pg. 2

expected to grow 12% annually through 2012. For more information, visit [www.transposagenbio.com](http://www.transposagenbio.com).

**About the Medical College of Wisconsin:** The Medical College of Wisconsin in Milwaukee, [www.mcw.edu](http://www.mcw.edu), is a private, freestanding academic institution dedicated to leadership and excellence in advancing the prevention, diagnosis and treatment of disease and injury through education, discovery, patient care and community engagement. A major national research center and academic medical center, its faculty physicians and scientists direct or collaborate on more than 3,000 research studies, publish over 1,300 peer-reviewed scientific papers, and provide care in virtually every specialty of medicine to approximately 350,000 patients annually.

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