

## News Release

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[mark@impress-pr.com](mailto:mark@impress-pr.com)**SIGMA-ALDRICH ANNOUNCES SAGE™ PRIORITY PARTNERS PROGRAM; SEEKS RESEARCHERS TO EVALUATE NEW KNOCKOUT RAT MODELS**

**St. Louis, MO – October 20, 2009** – Sigma-Aldrich® (**NASDAQ: SIAL**) today announced the launch of the SAGE™ Priority Partners Program, through which the Company plans to build a network of researchers to evaluate the ‘knockout’ rat models it is developing to support pre-clinical research work across a number of medical fields, including Neurobiology, Toxicology, Cardiology, Immunology and others.

The partner program, managed by Sigma Advanced Genetic Engineering (SAGE™) Labs, a Sigma® Life Science initiative based in St. Louis, MO., effectively aims to validate the Company’s portfolio of genetically-engineered rodent research models, developed using Sigma-Aldrich’s proprietary CompoZr™ Zinc Finger Nuclease (ZFN) gene editing technology, which enables scientists to deactivate or ‘knockout’ specific genes that are associated with human disease.

Partners will be asked to conduct their own evaluation studies and provide feedback, and in return will be offered a number of benefits, including first access to new knockout models and ordering priority and fulfillment, as well as participating in the establishment of the research and development pipeline for this technology.

“The real value of our knockout rat models will lie in the phenotypes that they display,” commented Dr. Edward Weinstein, Director of SAGE Labs. “As a result, we are actively seeking experts in the field who are interested in the initial validation of these animals as part of our exclusive SAGE Priority Partners Program.”

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Initially, SAGE Labs will be working on knockout rat models that target over 20 genes across a number of research areas. One example is Neurobiology, where knockout rat models are being developed with conditions such as Schizophrenia, Parkinson's Disease, Obesity and Alzheimer's. The initial portfolio of models for neuroscience applications includes:

- (1) DISC 1 – Disrupted in Schizophrenia 1** - The DISC 1 protein plays a role in neuronal cell growth and movement and was originally identified through a family with prevalent history of schizophrenia and other neurological disorders. It is suspected to play a role not only in schizophrenia, but also in bipolar disorder and depression.
- (2) ApoE – Apolipoprotein E** - ApoE is an essential protein responsible for the production of normal triglyceride containing lipoprotein catabolism, vital for the breakdown and release of energy. While most importantly identified for its role in cardiovascular disease, variations in the ApoE gene have recently been implicated in Alzheimer's disease and atherosclerosis.
- (3) Leptin – Leptin** - Leptin is an adipose (fat) derived hormone that plays a role in appetite and metabolism, and is also a player in satiety signaling. This has led to its study and significant research into the role that neurological signaling plays in obesity.
- (4) BDNF – Brain derived neurotrophic factor**- The BDNF protein is a nerve growth factor found in the brain that acts by supporting existing neurons and encouraging the growth of new neurons. Defects in BDNF expression have been linked to Alzheimer's, Huntington's disease, depression, dementia, schizophrenia, and obsessive-compulsive disorder (OCD).

“Our recently announced SAGEspeed model creation platform enables us to develop animal models in about four to five months in both Rat and Mouse, which is about a third of the time it would take using an Embryo Stem Cell approach,” continued Weinstein. “The models that we have developed thus far are really the tip of the iceberg in terms of the long-term potential for ‘knockout’ gene technology to offer viable, rapidly available animal models with specific genetic changes that are expected to enable researchers to better understand gene function and, based on that understanding, develop new therapeutic approaches.”

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Looking ahead, Sigma-Aldrich sees significant potential for applications that use ZFN technology to develop rodent models for most types of human disease that could theoretically reduce research times by years and thus save a significant number of lives.

Further information on the SAGE Priority Partners Program can be accessed online at [www.sageresearchmodels.com](http://www.sageresearchmodels.com).

**About Sigma-Aldrich:** Sigma-Aldrich is a leading Life Science and High Technology company. Its biochemical and organic chemical products and kits are used in scientific and genomic research, biotechnology, pharmaceutical development, the diagnosis of disease and as key components in pharmaceutical and other high technology manufacturing. Sigma-Aldrich has customers in Life Science companies, university and government institutions, hospitals, and in industry. Over one million scientists and technologists use its products. Sigma-Aldrich operates in 38 countries and has 7,800 employees providing excellent service worldwide. Sigma-Aldrich is committed to Accelerating Customer Success through Innovation and Leadership in Life Science, High Technology and Service.

**Cautionary Statement:** This release contains forward-looking statements relating to future strategic actions and initiatives and similar intentions and beliefs and other statements regarding the Company's expectations, beliefs, intentions and the like, which involve assumptions regarding the Company's operations and conditions in the markets the Company serves. The Company does not undertake any obligation to update these forward-looking statements.

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