

## **Trevena Awarded \$7.65 Million NIH Grant to Accelerate Identification and Selection of Biased GPCR Ligands**

*Trevena to Use Innovative Discovery Platform to Identify Novel Biased Ligands and Work with Scientific Research Community to Advance Understanding of New GPCR Pathways and Biology*

KING OF PRUSSIA, PA, November 3, 2009 – Trevena Inc., a leader in the discovery of G-protein coupled receptor (GPCR) biased ligands announced today that it was awarded a \$7.65 million Grand Opportunity (GO) Grant by the office of the director of the National Institutes of Health (NIH). This grant will further fund Trevena's work to identify and characterize functionally selective biased ligands for a wide range of GPCRs. It will also enable the company to make unique tool molecules available to research collaborators to accelerate and expand the role of key signaling pathways in biological processes. The funds were provided to the NIH as part of the American Reinvestment and Recovery Act of 2009.

“Trevena is discovering and developing the next generation of GPCR-targeted drugs. Unlike previous GPCR therapies, our proprietary approach enables us to identify biased ligands for individual GPCRs and discover and develop highly differentiated drugs that can precisely activate selective signaling pathways,” said Maxine Gowen, Ph.D., president and chief executive officer of Trevena. “This grant supports not only Trevena's work in identifying and characterizing biased ligands for important GPCRs, but enables us to share these findings with leading researchers in the field to advance the understanding of GPCR biology. We are extremely excited about this prospect and look forward to these collaborations.”

Trevena is focused on developing a linked portfolio of GPCR ligands that are “biased” toward either activating or blocking specific signaling pathways mediated through individual GPCRs. Unlike traditional, broad GPCR approaches, the enhanced focus and specificity of these biased ligands for specific targets enables Trevena to engage only the desired signaling pathway and deliver optimal therapeutic effects - without many of the unwanted effects seen with less selective GPCR approaches. Trevena is linking its proprietary screening platform - the Advanced Biased Ligand Explorer, or ABLE™ - with its growing pipeline of discovery programs in indications with significant unmet medical need to bring a novel and comprehensive approach to biased ligand drug development.

### **Scope of NIH-Funded Project**

In the first phase of this project, Trevena will select six GPCRs based on proprietary biological hypotheses and will design, optimize and deploy a suite of assays to identify biased ligands against each receptor. The selected GPCRs will then be subjected to a robust and validated screening process, through which the biased ligands for these GPCRs will be identified. The second phase of the project will focus on Trevena's proprietary research processes and analysis of the selected biased ligands to improve their bias, potency and receptor selectivity. This broad scale screening, optimization, and characterization project is expected to dramatically increase the number of potent biased ligands that are currently available for further study and development, both as research tools and as potential therapeutic candidates.

### **Trevena Grant Advisory Board**

Trevena also announced today that it has assembled a leading group of GPCR and drug discovery scientists to provide ongoing counsel and insights regarding the scientific aspects of this project and work closely with Trevena's internal team of experts:

- Brian Kobilka, M.D., Professor of Molecular and Cellular Physiology and Professor of Medicine, Stanford School of Medicine
- Walter Koch, Ph.D., director for the Center of Translational Medicine and W.W. Smith Professor of Medicine, Thomas Jefferson University
- John LaMattina, Ph.D., former president of Global Research and Development at Pfizer
- Robert R. Ruffolo, Jr., former president of Research and Development at Wyeth Pharmaceuticals

### **About Trevena**

Trevena, Inc. is a privately-held pharmaceutical company focused on discovering and developing G-protein coupled receptor (GPCR) targeted medicines. Its unique linked portfolio combines a powerful and efficient drug discovery platform with extensive development experience to yield a rich pipeline of potential medicines. Trevena's proprietary Advanced Biased Ligand Explorer, or ABLE™, platform is a fully integrated collection of tools for identifying and characterizing biased GPCR ligands. The platform includes customized assays, proprietary software, animal models and unique biological signaling information across multiple GPCRs. The company's drug discovery technology is based on extensive research from the laboratories of leading scientists in the field - Robert J. Lefkowitz, M.D. and Howard A. Rockman, M.D. of Duke University Medical Center. Trevena's pipeline is currently focused on programs for cardiovascular and CNS indications with significant unmet medical needs. Founded in 2008, Trevena is based in King of Prussia, Pennsylvania and is backed by leading investors including Alta Partners, Healthcare Ventures, NEA and Polaris. For more information about the company, please visit [www.trevenainc.com](http://www.trevenainc.com).