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ACS Pharma Roundtable Awards Two Grants in Green Chemistry

Grants cited for their innovation and potential benefits

Washington DC (January 28, 2008) – The ACS Green Chemistry Institute’s Pharmaceutical Roundtable, a partnership aimed at integrating green chemistry and engineering in the pharmaceutical industry, announced the award of two grants to research projects that target greener synthetic methodologies resulting in improved environmental benefits. The grants have been awarded as part of a far-reaching effort to expand green chemistry and engineering practices in the global pharmaceutical industry.

The grant winners are Dr. Michael J. Krische of the University of Texas-Austin for his proposal, “Byproduct-Free Synthesis of Chiral Amines via C-C Bond Forming Transfer Hydrogenation and Hydrogen Auto-Transfer” and Dr. Chao-Jun Li of McGill University for his proposal, “Chiral Amines via Asymmetric Multi-Component Reactions.” Each project received an award of \$130,000 towards their research.

The grant program, which was funded through a partnership between the American Chemical Society (ACS) and an alliance of major pharmaceutical companies, is the result of an annual call for proposals focusing on reducing waste and improving productivity of pharmaceutical chemistry.

“These grants will help raise awareness of green chemistry to the mainstream academic audience, while also giving us the opportunity to improve pharmaceutical practices across the industry,” said Dr. Andrew Wells, Principal Scientist at AstraZeneca. “We are constantly looking to increase the environmental benefits of our research, and we believe these projects offer long-term possibilities to improve corporate efficiency.”

Dr. Krische’s project intends to break from traditional methods of hydrogenation, by establishing hydrogenation as a byproduct-free method for Carbon-Carbon (C-C) bond formation, as opposed to more conventional Carbon-Hydrogen (C-H) bond formation. This

study represents the first efforts to take advantage of catalytic hydrogenation in C-C couplings beyond hydroformylation.

Dr. Li's project looks to develop efficient catalytic enantioselective synthesis of chiral propargylamines and benzylamines via the direct coupling of alkynes (and arenes), aldehydes, and amines in a single operation. If successful, this work will help eliminate the need to synthesize expensive starting materials, such as imines and organometallics reagents, which will reduce business costs and eliminate waste. Additionally, the reactions are atom-economical, leaving only water as a by-product of the process.

“We at Pfizer are proud to be involved with these grants and the continued pursuit of environmentally-friendly research and innovation,” said Dr. Peter Dunn, Pfizer Green Chemistry Leader. “We are committed to working toward full implementation of the principles and standards of green chemistry and engineering.”

About the ACS GCI Pharmaceutical Roundtable

In 2005, the ACS Green Chemistry Institute (GCI) and global pharmaceutical corporations developed the GCI Pharmaceutical Roundtable (Roundtable) to encourage innovation while catalyzing the integration of green chemistry and green engineering in the pharmaceutical industry. The activities of the Roundtable reflect the joint belief that the pursuit of green chemistry and green engineering is imperative for a sustainable business and world environment. (Add Boehringer-Ingelheim to the company listings)

Our members include AstraZeneca | GlaxoSmithKline | Johnson & Johnson | Eli Lilly & Company | Merck & Co, Inc. | Pfizer Inc. | Schering-Plough | Wyeth | Boehringer-Ingelheim

For more information about the ACS Green Chemistry Institute® or the ACS GCI Pharmaceutical Roundtable, please visit www.acs.org/greenchemistry