



2012-2013 POCC Lecture Series

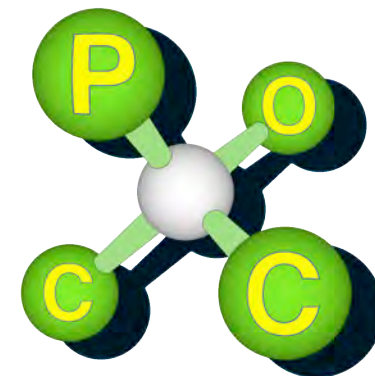
February 28, 2013, 8:00 PM

Prof. Paul Helquist
University of Notre Dame

*Collaborative Multidisciplinary Development of
New Therapeutic Agents in an Academic Setting*

Carolyn Hoff Lynch Lecture Hall
Chemistry Building, University of Pennsylvania

The Philadelphia
Organic Chemists' Club



POCClub.org

To join us for dinner before the lecture please contact POCC's assistant secretary Simon Golec (SimonG1326@aol.com) at least one week ahead of time.

Paul Helquist received his training in synthetic organic and organometallic chemistry at the University of Minnesota, Cornell, and Harvard under the mentorship of Professors Robert M. Carlson, Martin F. Semmelhack, and E. J. Corey. He rose through the ranks to Full Professor while at the State University of New York at Stony Brook for 12 years. For the past 28 years, he has been at Notre Dame where he has served as Department Chair, Associate Chair for Research, and head of two interdisciplinary cancer research programs. In addition to his teaching and research activities, he has held a number of external appointments, including Chair of the Chemistry Board of Examiners for the GRE, Director of the NSF Workshop for College Teachers of Organic Chemistry, and instructor of courses on advanced synthetic organic chemistry on over 130 occasions at sites throughout the U.S.A., Canada, and Europe under the auspices of the Continuing Education Department of the ACS. He has held a number of visiting faculty appointments in Europe, most recently for 15 months during 2011-2012 as a guest professor supported by the Science Council of Sweden. A principal emphasis of his work during the past decade has been together with his colleague, Olaf Wiest, the coordination of an interdisciplinary network of biomedical researchers at over 20 universities, medical schools, companies, and foundations in North America, Europe, and Asia aimed at development of therapeutic agents for several diseases.

Abstract: The Wiest and Helquist laboratories at Notre Dame, specializing in computational chemistry and drug synthesis, respectively, are supported by various funding mechanisms to reach out to investigators in other fields and institutions to form multi-disciplinary collaborative teams for drug development. Most often, the external collaborators are at medical schools or other biomedical institutions and have major strengths in biological or clinical studies but do not have the chemistry expertise required for drug development. These collaborators have often identified a potential therapeutic protein target from cellular studies, or they have conducted compound screenings to identify initial hits. The next steps in these investigations are the design of protein binders or hit optimization, requiring computational and synthetic chemistry input. The resulting compounds are provided back to the external collaborators and other appropriate parties for more extensive biological studies. These collaborative ties have been established with many investigators at Cornell, Tufts, Columbia, Southwestern Medical Center, Broad Institute, Dana-Farber Cancer Institute, Purdue, SUNY at Albany, Stockholm University, Royal Institute of Technology (Stockholm), the Sahlgrenska Research Hospital of the University of Gothenburg, Sweden, and corporate partners.

