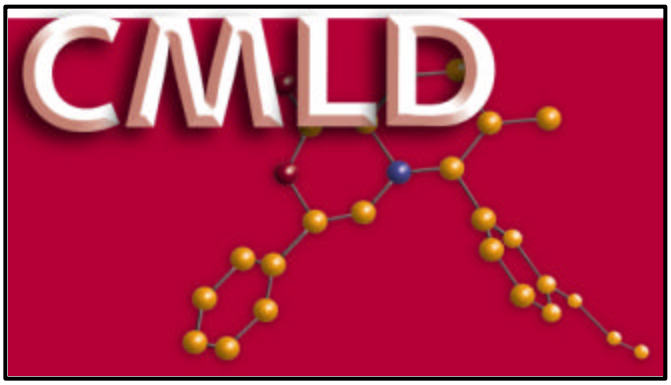


## The Center for Chemical Methodology and Library Development at Boston University

The CMLD is funded by the National Institutes of Health (NIH) to discover new methodologies to produce novel chemical libraries of unprecedented complexity for biological screening. The Center's goal is to expand the diversity of small molecule libraries by creating general, useful protocols for stereocontrolled synthesis. The Center, formed in September 2002, develops general strategies, tools, and diversity reagents to synthesize small-molecule libraries in both solution- and solid-phase formats. These novel chemical libraries will uniquely probe three-dimensional space using stereochemistry and functional group position as diversity elements. In addition, the CMLD will streamline the process of library development, planning, methodology validation, and library construction by integrating Cheminformatics at multiple stages. The CMLD expands the existing capabilities of the Boston University Center for Streamlined Synthesis (CSS) that was founded in the Chemistry Department in 1999. The CSS has been a leading academic center in the development of methodologies for the efficient synthesis of complex molecules and development of clean and efficient methodologies that integrate synthesis and purification. The CMLD draws from the expertise of four principal investigators in Boston University's Department of Chemistry:

- ***John A. Porco, Jr., Director***, is Assistant Professor of Chemistry at Boston University, which he joined in 1999. He received his Ph.D. in Organic Chemistry with Stuart Schreiber at Harvard University in 1992 and did postdoctoral studies in Chi Huey Wong's laboratory at the Scripps Research Institute. Dr. Porco worked as an associate for Avalon Ventures ((La Jolla, CA) where he participated in the founding of several biotechnology companies, including Argonaut Technologies. He was the first scientist at Argonaut Technologies and, in 1997, became Director of Parallel Medicinal Chemistry, developing reagents and methods for parallel chemical synthesis. His current research interests include development of new methodologies for chemical synthesis and their application to the synthesis of complex natural products and natural product-like molecules.

- ***James S. Panek*** is Professor of Chemistry at Boston University. He received his Ph.D. in 1984 from the University of Kansas under the direction of Professor Dale L. Boger. Prior to joining Boston University in 1986, he did postdoctoral study with Professor Samuel Danishefsky at Yale University as an NIH Fellow. His research interests involve acyclic stereocontrol and synthesis of complex organic molecules.

- ***John K. Snyder*** is Professor of Chemistry at Boston University, which he joined in 1983. He received his Ph.D. in 1979 from the University of Chicago, working with Professor Leon M. Stock. His post-doctoral studies were done with Professor Koji Nakanishi at Columbia University. His research interests include the chemistry of natural products and exploration of new chemistry in heterocyclic synthesis.

- ***Scott E. Schaus*** is Assistant Professor of Chemistry at Boston University, which he joined in 2002. He received his Ph.D. in Organic Chemistry with Eric N. Jacobsen at Harvard University in 1999 and did postdoctoral studies at Harvard University in the laboratory of Professor Andrew G. Myers as an NIH Fellow. His research interests include asymmetric catalysis, natural product synthesis, and the development of chemical and informatics tools to gain further understanding of biological processes.

The projects underway at the CMLD employ stereochemical and positional variation within the molecular framework as diversity elements for library design. It is the goal of the CMLD to develop general strategies, tools, and novel diversity reagents for the syntheses of small molecule libraries. All four investigators contribute to the research projects that the Center undertakes. Protocols and results from projects are freely available on the Center's website. Furthermore, the participating faculty in the CMLD are making lasting, interactive collaborations with researchers in the biomedical sciences. The Chemical Library Consortium (CLC), an affiliation of biologists and biochemists, has been established to validate the quality of the libraries that are developed at the Center. Professor Thomas Gilmore from the Biology Department at Boston University will serve as Director of the CLC and advisor to the interactions of chemists with biological collaborators. The CLC will enable the demonstration of the quality of libraries through identification of molecules that can be utilized as tools to investigate cellular processes. For further information about the CMLD, please visit the CMLD website at http://www.bu.edu/cmld or contact Professor John Porco (porco@chem.bu.edu; phone: 617-353-2493).