

Gordon research conference program

Bioorganic Chemistry

June 23–28, 1996

Plymouth State College

Plymouth, New Hampshire, USA

Amy Trainor and Craig Wilcox, co-chairs

Theory and prediction

David Beveridge, Wesleyan University, USA: **Nanosecond molecular dynamics simulation of DNA, including counterions and water**

Mike Gilson, Center for Advanced Research in Biotechnology, USA: **Construction and validation of models for protein–ligand association**

Peter Kollman, University of California at San Francisco, USA: **Molecular recognition in proteins, nucleic acids, and ionophores**

DNA modification

Paul Hopkins, University of Washington, USA: **DNA–drug interactions**

Maria Tomasz, City University of New York, USA: **Cross-linking of DNA by natural and synthetically modified mitomycins**

Ted Widlanski, Indiana University, USA: **Expanding the genetic backbone using modified DNA**

Biochemical signals

Stuart Schreiber, Harvard University, USA: **Signal transduction and chemical genetics**

Mike Klimas, Zeneca Pharmaceuticals Group, USA: **Store-operated calcium channels**

Dennis Dougherty, Caltech, USA: **Physical organic chemistry on the brain**

Mechanism I

Nicole Sampson, State University of New York at Stony Brook, USA: **Cholesterol oxidase turned oxygenase**

Nancy Thornberry, Merck Research Laboratories, USA: **Structure, function and inhibition of ICE and related proteases**

Greg Verdine, Harvard University, USA: **Mechanistic studies on proteins that decorate and mend the genome**

Mechanism II

Mark Distefano, University of Minnesota, USA: **Design of selective reaction catalysts based on protein cavities**

Don Hilvert, Scripps Research Institute, USA: **Selection strategies for generating receptors and catalysts**

Nassim Usman, Ribozyme Pharmaceuticals Incorporated, USA: **Modulation of catalysis in the hammerhead ribozyme by chemical modification**

Phosphoryl transfer

Melanie Cobb, University of Texas Southwestern Medical Center, USA: **Regulation of MAP kinase and parallel pathways**

Keith Chenault, University of Delaware, USA: **Exploiting enzymatic phosphorylation of unnatural substrates for synthesis**

Combinatorial design

Jon Ellman, University of California at Berkeley, USA: **Advances in the design, synthesis and evaluation of small molecule libraries**

John Cargill, Ontogen Corporation, USA: **Advances in automation of solid phase synthesis**

Andy Ellington, Indiana University, USA: **Mapping evolutionary and structural interactions between aptamers and proteins**

Natural products

Heinz Floss, University of Washington, USA: **Chiral methyl groups as radical clocks**

Jon Clardy, Cornell University, USA: **Natural products and their macromolecular receptors**

Molecular design

Andy Hamilton, University of Pittsburgh, USA: **Design, synthesis and evaluation of inhibitors of ras functions: a new class of antitumor agents**

James Nowick, University of California at Irvine, USA: **Design, synthesis and study of artificial β -sheets**

Steve Zimmerman, University of Illinois at Urbana-Champaign, USA: **Dendrimers in molecular recognition and self assembly**

All applications must be received six weeks prior to the conference. Early application is recommended. Application forms and programs for all the Summer and Fall 1996 Gordon Research Conferences are published in *Science* during early February. For more information, contact grc@grcmail.grc.uri.edu, or write:

Gordon Research Conferences
University of Rhode Island
PO Box 984
West Kingston, RI 02892-0984, USA