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2003–2004 ACS Division of Organic Chemistry Graduate Fellowship Awards

The Division of Organic Chemistry annually awards fellowships to outstanding third and fourth year graduate students in organic chemistry. The program, now in its 23rd year, has awarded over 260 fellowships. The complete list of Fellows is available on the Division of Organic Chemistry web site at http://www.chem.wayne.edu/acs-organic-division/fellowships.html.

The fellowship stipend this year is $20,000, and the Fellows will travel to the 2005 National Organic Symposium to present a poster on their work. Each of the fellowships is sponsored by a prominent company or organization. Awardees are selected by an independent committee, and evidence of research accomplishments is an important factor in the selection. The applicants for the fellowship submit a short original essay as part of the competition, and the essays of the award winners will soon be available on the Division of Organic Chemistry web site.

This year, we introduce the first endowed fellowship, the Emmanuil Troyansky Fellowship, which will be awarded every other year. Em was a remarkable chemist who succeeded in two different careers in two different worlds. In his native Russia, he rose to become head of a research group at the Institute of Organic Chemistry and Professor of Chemistry at the Higher Chemical College in Moscow. He emigrated to the US in 1997 and had embarked on an industrial career that was cut short by an auto accident in 2002. I knew Em well, and he was passionate about organic chemistry and especially education of Ph.D. level organic chemists. Thus, I can think of no better tribute to Em than a fellowship endowed in his name. On behalf of the Division of Organic Chemistry, I warmly thank his family, especially his wife, Elena Kolosova, for endowing this fellowship.

Next year, Professor Scott Rychovsky of the University of California at Irvine will succeed me as Chair of the Fellowship program, so I want to take this opportunity to personally thank all the companies and individuals who have supported me over the past 5 years. Times are tight, and we continue to lose company sponsors to mergers about as fast as we add new ones. If your company is not currently sponsoring a fellowship, please consider stepping up to support this worthwhile program. Scott will welcome contacts both from companies seeking to sponsor annual fellows as well as from individuals and organizations seeking to endow them. There are always many more deserving applicants than there are fellowships!

The Division of Organic Chemistry congratulates the following 15 award winners, gratefully acknowledges the sponsors, and thanks *Organic Letters* for the opportunity to publish these biographical sketches.

Dennis P. Curran
Chair, Division of Organic Chemistry Graduate Fellowship Program
University of Pittsburgh, October 10, 2003

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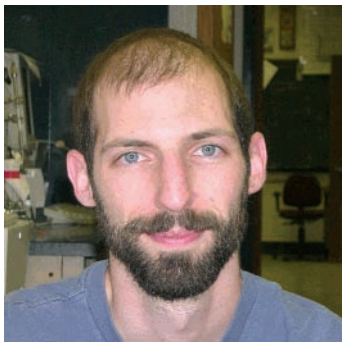


Benjamin L. Frankamp

Sponsor: The Procter & Gamble Company

University: University of Massachusetts

Advisor: Vincent M. Rotello

Essay - Synthesis and Application of Metallointercalators. Benjamin L. Frankamp graduated with a B.S. degree in Chemistry from George Fox University, Newberg, OR. He is a fourth year graduate student with Vincent M. Rotello at the University of Massachusetts, Amherst, MA, where he has synthesized a variety of nanoparticles, gold and γ-iron oxide, and synthesized functional nanoparticle ligands. He has investigated the directed self-assembly of these nanoparticles and quantified interparticle spacing and its effects on specific nanoparticle properties, specifically dipolar coupling of magnetic nanoparticles.

Jeremy A. May

Sponsor: Merck Research Laboratories

University: California Institute of Techology

Advisor: Brian M. Stoltz

Essay - Implications of the Biosynthesis of the Calycanthaceous Alkaloids. Jeremy A. May graduated from University of Utah, Salt Lake City, UT, with a B.S. degree in Chemistry. He is a fourth year graduate student with Professor Brian M. Stoltz at the California Institute of Technology, Pasadena, CA. Jeremy's research includes progress toward the total synthesis of anti-leukemic agent communesin B, gas-phase studies of the mechanism of the copper(II)-mediated Wolff rearrangement, and development of the rhodium-catalyzed tandem Bamford−Stevens Claisen rearrangement. In addition, in collaboration with Professor Jack Beauchamp's group he has been developing small molecular reagents for gas-phase protein sequencing.

Matthew B. Soellner

Sponsor: Abbott Laboratories

University: University of Wisconsin

Advisor: Ronald T. Raines

Essay - Oxaziridines as Heteroatom Transfer Reagents. Matthew B. Soellner received his B.S. degree in Biochemistry from Oberlin College, Oberlin, OH. He is completing his fourth year as a graduate student with Professor Ronald T. Raines at the University of Wisconsin, Madison, WI. Matthew's research includes mechanistic studies and synthetic applications of the Staudinger ligation reaction. His work is based on the adaptation of the Staudinger reaction to the coupling of two synthetic peptides and has been applied to the immobilization of enzymes on a solid surface.

Eric R. Strieter

Sponsor: Albany Molecular Research, Inc.

University: Massachusetts Institute of Technolgy

Advisor: Stephen L. Buchwald

Essay - The Mechanism of Pd-Catalyzed Aerobic Oxidation of Alcohols. Eric R. Strieter received his B.S. degree in Chemistry from the University of Wisconsin, Madison, WI. He is a fourth year graduate student with Professor Stephen L. Buchwald at the Massachusetts Institute of Technology, Cambridge, MA. His research involves studying the mechanisms of the following reactions: Pd(biaryl-dialkyphosphine)-catalyzed amination of aryl chlorides; the Cu(I)-diamine-catalyzed N-arylation of amides; and the Pd(BINAP)-catalyzed amination of aryl bromides.

Kacey A. Claborn

Sponsor: Organic Reactions, Inc.

University: University of Washington

Advisor: Bart Kahr

Essay - Contemporary Interpretations of Optical Rotatory Power. Kacey A. Claborn obtained a B.S. degree in Crystallography from the University of Washington, Seattle, WA. She is a third year graduate student in the laboratory of Professor Bart Kahr at the University of Washington. Kacey's research has been directed toward measuring and interpreting the optical rotatory power of crystals. Her work has included the first determination of the optical rotatory power of an achiral molecule and the first optical rotation and circular images of crystals.

Kevin P. Cole

Sponsor: Schering-Plough Research Institute

University: University of Minnesota

Advisor: Richard P. Hsung

Essay - Synthetic Approaches to Phomactin A. Kevin P. Cole received a B.S. degree in Chemistry from the University of Minnesota, Minneapolis, MN. He is a fourth year graduate student at the University of Minnesota studying with Professor Richard P. Hsung. Kevin's research has been on the development of new synthetic methodologies and their application toward natural product synthesis. Kevin has completed the synthesis of arisugacin A and is currently engaged in the synthesis of phomactin A.

Jeffrey B. Johnson

Sponsor: "Emmanuil Troyansky Graduate Fellowship", administered by the ACS Division of Organic Chemistry

University: University of Wisconsin

Advisor: Charles P. Casey

Essay - The Formation of Functionalized Carbocycles by Tandem Cyclization/Hydrosilylation Reactions of Dienes. Jeffrey B. Johnson graduated from Gustavus Adolphus College, St. Peter, MN, with a B.A. in Chemistry. He is completing his fourth year of graduate studies at the University of Wisconsin, Madison, WI, studying with Professor Charles P. Casey. Jeffrey has been studying the reaction mechanism of ruthenium(II) hydrogenation catalysts containing acidic and hydridic hydrogens, primarily through kinetic studies and determination of deuterium isotope effects. In addition, he is preparing new analogues of known hydrogenation catalysts in order to increase catalytic activity and allow catalytic reduction of polar unsaturated compounds under mild conditions.

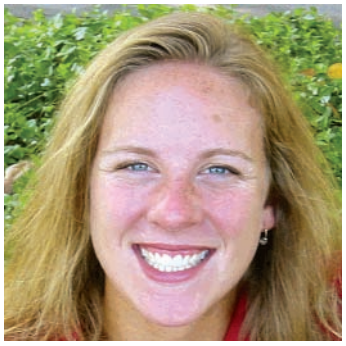
Jason A. Miller

Sponsor: "Nelson J. Leonard ACS Division of Organic Graduate Fellowship", sponsored by Organic Syntheses, Inc.

University: Northwestern University

Advisor: SonBinh T. Nguyen

Essay - The Enantioselective Synthesis of Conformationally Constrained Cyclic β-Amino Acids. Jason A. Miller received a B.A. in Chemistry from Augustana College, Rock Island, IL. He is a fourth year graduate student in the laboratory of Professor SonBinh T. Nguyen at Northwestern University, Evanston, IL. His research has been directed toward studying the scope and applications of the asymmetric olefin cyclopropanation reaction. He is using new homogeneous catalysts for the stereoselective intermolecular transfer of carbenes to form highly enantioenriched cyclopropanes.



Emily A. Peterson

Sponsor: Pfizer, Inc.

University: University of California, Irvine

Advisor: Larry Overman

Essay - Recent Advances in the Hydrosilylation of Alkynes. Emily A. Peterson received her B.S. in Chemistry (Magna cum Laude) from Western Washington University, Bellingham, WA. Emily is a fourth year graduate student in the laboratory of Professor Larry Overman at the University of California, Irvine, CA. She has worked on defining the scope of the Prins-pinacol synthesis of polycyclic ethers and has completed the total synthesis of the polypyrrolidinoindoline alkaloid idiospermuline. She is currently working on the total synthesis of the alkaloid communesin A.

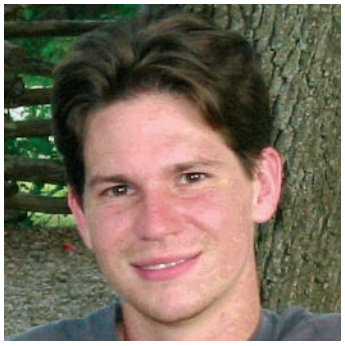
Carissa J. Wiederholt

Sponsor: Aventis Pharmaceuticals

University: Johns Hopkins University

Advisor: Marc M. Greenberg

Essay - Altering the Structure of DNA. Carissa J. Wiederholt received her B.A. in Chemistry/Biochemistry (Magna cum Laude) from Coe College, Cedar Rapids, IA. Carissa is a fourth year graduate student in Professor Marc M. Greenberg's laboratory at Johns Hopkins University, Baltimore, MD. She has carried out extensive studies on the effects of formamidopyrimidine, and analogues, containing DNA lesions. In addition to characterizing the physicochemical properties of these DNA lesions, Carissa is using shuttle vector technology to enable the Greenberg group to study the effects of these and other DNA lesions in *E. coli*.



Christopher T. Calderone

Sponsor: Bristol-Myers Squibb Foundation

University: Harvard University

Advisor: David R. Liu

Essay - Beyond Building Blocks: Progress toward True Diversity-Oriented Synthesis. Christopher T. Calderone received a B.S. in Chemistry from the University of Chicago, Chicago, IL, and an M.S. in Chemistry from Cambridge University, Cambridge, UK. Chris is a fourth year graduate student in Professor David R. Liu's laboratory at Harvard University, Cambridge, MA. His studies include developing new approaches to small molecule library synthesis using DNA-templated synthesis.

Carol A. Mulrooney

Sponsor: GlaxoSmithKline

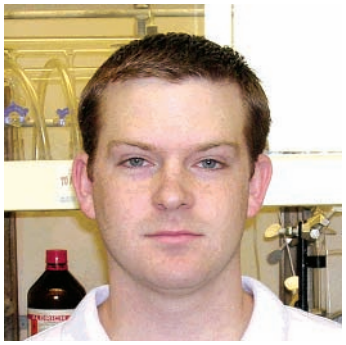
University: University of Pennsylvania

Advisor: Marisa C. Kozlowski

Essay - Recent Developments in Copper-Catalyzed N-Arylation with Aryl Halides. Carol A. Mulrooney received a B.S. in Chemistry from the University of Connecticut, Storrs, CT. Carol worked at Boehringer Ingelheim Pharmaceuticals, Inc. for seven years at which time she received her M.S. in Chemistry from Saint Joseph College, West Hartford, CT. She is a fourth year graduate student working in the laboratory of Professor Marisa C. Kozlowski, University of Pennsylvania, Philadelphia, PA. Carol has undertaken studies on the total synthesis of purpuromycin, an asymmetric oxidative biaryl coupling reaction, and an oxidative coupling of malonates with 2-naphthols.

Elizabeth S. Sattely
Sponsor: Wyeth Research
University: Boston College
Advisor: Amir H. Hoveyda

Essay - Site-Selective Functionalization of Unactivated Olefins in Total Synthesis. Elizabeth S. Sattely received her B.S. in Chemistry from Boston College, Boston, MA. She is a fourth year graduate student studying with Professor Amir H. Hoveyda at Boston College. Elizabeth is working on asymmetric olefin metathesis. She has synthesized and examined the catalytic asymmetric ring-opening/cross-metathesis (AROM/CM) of several substrates, demonstrating that there is a significant influence by an internal Lewis base on the facility and enantioselectivity of these Mo-catalyzed AROM/CM reactions.



Adam J. Morgan
Sponsor: Organic Syntheses, Inc.
University: Boston College
Advisor: Scott J. Miller

Essay - The Utility of Chiral Polymers in Asymmetric Catalysis. Adam J. Morgan received his B.A. in Chemistry from Boston University, Boston, MA. He is a fourth year graduate student studying with Professor Scott J. Miller, Boston College, Boston, MA. Adam is working on the use of peptide-based catalysts for the asymmetric phosphorylation of polyols. He has identified nonenantiomeric catalysts that exhibit high enantioselectivity for enantiotopic groups in a meso substrate.

Christina A. Risatti
Sponsor: Eli Lilly and Company
University: University of Notre Dame
Advisor: Richard E. Taylor

Essay - Biomimetic Synthesis of Polycyclic Natural Products from Acyclic Precursors. Christina A. Risatti obtained a B.A. in Chemistry (Summa cum Laude) from the University of New Hampshire, Durham, NH. Christina is a fourth year graduate student studying with Professor Richard E. Taylor, University of Notre Dame, South Bend, IN. Her studies involve the development of methodology toward the synthesis of enantioenriched cyclopropyl aldehydes via heteroatom stabilization of homoallylic cation rearrangements and investigation of the reaction mechanism and application toward the synthesis of structurally interesting polycyclopropane containing natural products. In addition, she is working on the activation and nucleophilic trapping of enecarbamates toward the synthesis of structurally diverse cyclopropane scaffolds.

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