Greetings from Loyola University Chicago! It is hard to believe that nearly 3 years have passed since the last Chemistry Newsletter was produced. As many things have happened in that time, in my opinion, the department is in the midst of a truly transformative period.

We welcomed three new assistant professors to our faculty: Eric Brown (Organic – theoretical, Fall 2007), Jacob Ciszek (Inorganic – nanotechnology, Fall 2008), and Dali Liu (Biochemistry, scheduled to arrive in Spring 2010). I am confident that we will be hearing a great deal about these up-and-comers in the years to come. In March 2008, Associate Professor Daniel Becker earned tenure and Jan Florián was promoted to Associate Professor with tenure. On a sad note, two of our colleagues passed away: Frank Dias, long-time Chemistry Instructor, in the Summer of 2007 and Patrick Henry, Professor Emeritus, in the Fall of 2008. (Please see the In Memoriam section).

I am also happy to report that members of our faculty have been recognized for their teaching prowess. In 2006, Alanah Fitch merited the American Chemical Society Analytical Chemistry Division’s Cal Giddings Award for Excellence in Teaching; she received this award for her pioneering work in introducing service learning into instrumental analysis and for bringing instrumentation to East Africa via the web. Daniel Graham was recognized in 2008 for his "outstanding teaching in physical chemistry," receiving the Loyola University Edwin T. and Vivileanne F. Sujack Award for Teaching Excellence; he is the first Chemistry faculty to receive this recognition since Mary Boyd in 1995.

Many changes have occurred in our undergraduate and graduate programs. Currently, we report more than 400 Chemistry undergraduate majors; and Loyola places in the top 25 Chemistry departments nationally in the formation of ACS-certified BS chemists. Our graduate program continues to recruit, retain, and train outstanding, employable students and, as our research profile grows, we hope to become even more successful in this area.

As I finish my third year as Department Chair, I cannot help but be very optimistic about the future. We have an outstanding group of diversified faculty (please see their bios which follow) who are actively engaging in teaching and research, providing the foundation needed to supply both our undergraduates and graduates an excellent training in Chemistry and Biochemistry for their futures. As we move forward, I pledge to continue this department’s transformation by adding and retaining effective faculty, by seeking to attract additional top-potential undergraduate and promising graduate students, and by securing new instrumentation for teaching and research, in concert with the University’s strategic plans for expansion. I invite each and every one of you to participate in this transformation of our department, and I hope that you will feel free to visit us the next time you are in the area. Or just drop us a line; we would love to hear from you.

Sincerely,

Rick Holz
Faculty

Dr. James Babler, Organic Division, joined the Loyola Chemistry Department as an Assistant Professor in 1970 and was promoted to Professor in 1985. He earned a PhD in Synthetic Organic Chemistry (Prof. James Marshall, Northwestern University) and, more than 38 years later, remains active in that area of research. Present research interests include synthesis of both retinoids (e.g., vitamin A and Retin-A) and carotenoids (e.g., beta-carotene and lycopene), as well as various chemicals used widely in the flavor and fragrance industries. His research group has developed many novel synthetic transformations, most recently in the area of aldol technology (e.g., a novel type of cross-aldol condensation and an expedient way to conduct vinylogous aldol condensations). In a textbook intended for senior undergraduates and 1st year graduate students (Modern Organic Synthesis: An Introduction by G. Zweifel and M.H. Nantz, 2007), he is honored with the assignment of a "name reaction" to a widely-used organic synthesis methodology that he and Mike Coghlan (A & S, 1978) initially reported in 1976. If one "googles" the Babler Oxidation, that name reaction can now be found in Wikipedia. At Loyola, Dr. Babler has been equally active in teaching. Because of the large number of premedical and preprofessional students in his Organic Chemistry course during the 1970s and 1980s, he is on record as having taught more undergraduates than any other Loyola faculty member, past or present.

Dr. Daniel Becker received his bachelor's degree in Chemistry from Kalamazoo College and his PhD in Organic Chemistry from Indiana University. Dr. Becker joined the Loyola Department of Chemistry in 2003 after seventeen years in the pharmaceutical industry, where he served as a Project Team Leader and Research Fellow in the Department of Medicinal Chemistry with Searle Pharmaceuticals, Pharmacia, and Pfizer. His academic research encompasses both medicinal chemistry – toward the discovery of novel enzyme inhibitors for the treatment of human diseases and infections – and supramolecular chemistry in the construction of new supramolecular scaffolds for host-guest chemistry and analytical detection. He has authored over thirty publications in medicinal chemistry and synthetic organic methodology, and has been awarded nearly fifty issued U.S. patents for new synthetic methods and for new pharmaceuticals in the areas of cancer, arthritis, cardiovascular disease, and gastrointestinal diseases.

Dr. Miguel Ballicora hails from Argentina, having earned a PhD in Chemical Sciences (1993) and a PharmD (1987) from the University of Buenos Aires. He came to Loyola in August 2005 by way of Michigan State University, Ann Arbor, where he served as an Assistant Professor – Research (2000 – 2005) and as a Research Associate (1993 – 2000) in the Department of Biochemistry and Molecular Biology. His research interests include topics in: enzyme evolution; bioinformatics: comparative modeling for the prediction of enzyme function and phylogenetics; protein engineering and structure-function relationships; biosynthesis of bacterial glycogen and starch in plants; and biotechnology: modification of plant genes in order to manipulate starch content and structure. He has reviewed articles for various scientific journals, including: the Archives of Biochemistry and Biophysics, Physiologia Plantarum, Plant Physiology, Protein Expression and Purification, The Plant Journal, The Journal of Biological Chemistry, Biochemistry, and the Proceedings of the National Academy of Sciences. And he has written approx. 30 articles.

Prior to accepting a position at Loyola in August 2007 as an Assistant Professor, Eric Brown was a postdoctoral associate at Northwestern University, Hebrew University, and the University of California at Irvine. After beginning his chemistry career at Illinois State University, he completed his doctoral work at the University of Washington. His current research involves the fields of electronic structure theory and computational chemistry, with a particular emphasis on bonding motifs in electronically-excited states. Dr. Brown serves on the LUC Computing and Network Committee and is the Chemistry Department’s liaison to Information Technologies.

Dr. M. Paul Chiarelli, an Associate Professor and the Graduate Program Director specializing in Analytical Chemistry and Mass Spectrometry, joined the Chemistry Department in 1994. He received his PhD in 1988 from the University of Nebraska (advisor: Michael L. Gross). After graduate school, he did postdoctoral research at the Universities of Pittsburgh and Munster in Germany. In 1990 he took a staff position at the National Center for Toxicological Research (NCTR) in Jefferson, Arkansas as a Veteran’s Administration Postdoctoral Fellow. Dr. Chiarelli published four papers in 2008, highlighting his range, as listed below:

Liang, Fengting; Jain, Nidhi; Hutchens, Troy; Shock, David D; Beard, William A; Wilson, Samuel H; Chiarelli, M Paul; Cho, Bongsup P; "α, β-Methylene-2-deoxynucleoside 5'-Triphosphates as Noncleavable Substrates for DNA Polymerases: Isolation, Characterization, and Stability Studies of Novel 2'-Deoxycyclo-nucleosides, 3',5'-Cyclo-dG, and 2,5'-Cyclo-dT," Journal of Medicinal Chemistry, 51 (20), 6460-6470 (2008).
Communications

3

Illinois at Urbana-Champaign. Prior to James M. Tour, after earning a BS in
at Rice University under the tutelage of
the next generation of electronic devices.

essential groundwork necessary to achieve
of surface patterning contributes to the
lighting. This work in electronics in the field
adjust their brightness based on ambient
such as
in addition, it can enable “smart devices”
connections to the photoelectron effect
fundamental property is responsible for
molecules adsorbed on the surface. This
level (or the highest energy state of a metal
where the electrons reside) using
molecules adsorbed on the surface. This
fundamental property is responsible for
everything from resistance in electronic
connections to the photoelectron effect
classically studied by Einstein (1921 Nobel
Prize). This work may lead to more
efficient device performance in electronics;
in addition, it can enable “smart devices”
such as light sources which automatically
adjust their brightness based on ambient
lighting. This work in electronics in the field
of surface patterning contributes to the
essential groundwork necessary to achieve
the next generation of electronic devices.

Dr. Ciszek completed a PhD in Chemistry at Rice University under the tutelage of James M. Tour, after earning a BS in
Chemical Engineering at the University of Illinois at Urbana-Champaign. Prior to
joining Loyola, he earned distinction as an
American Cancer Society Postdoctoral
Researcher in the laboratory of Chad A.
Mirkin at Northwestern University.

Dr. Crumrine earned an AB from
Ashland College and a PhD from the
University of Wisconsin-Madison (Howard
Zimmerman). He performed postdoctoral
research with Herbert House (MIT, later
Georgia Tech). He came to Loyola as an
Assistant Professor in 1972, was promoted to Associate Professor in 1977, achieved
the rank of Professor in 1997, and served as Chemistry Department Chair (2002 –
2006). In 1980-1981, he was awarded
research leave to study Nuclear Magnetic
Resonance (NMR) at the Institute of
Molecular Science in Okazaki, Japan (Hiizu
Iwamura), and at the Dyson-Perrins
Laboratory, Oxford University, England
(Gordon Lowe). His research interests
include organic-reaction mechanisms,
photochemistry – especially related to
Photodynamic Therapy approaches to
attacking cancer — and NMR especially of
S and O. Recently, on his 2nd research
leave, Dr. Crumrine worked with Manuel
Diaz of the Oncology Center at the Loyola
Medical Center, investigating the
introduction of sensitizers, attached to folic
acid, into cancer cells. He co-organized a
symposium at the 2007 Boston American
Chemical Society (ACS) meeting honoring
Howard Zimmerman. Dr. Crumrine chaired
the local Chemistry Week celebration held
at the Illinois Institute of Technology in
October, and helped arrange for Nobel-
Laureate Roald Hoffmann to speak at
Loyola at the September 28, 2007 ACS
Chicago Section meeting, when
Dr. Hoffmann spoke on: “More about
Mme. Lavoisier than M. Lavoisier … the
most interesting life and historical times of
Mme. Marie Anne Lavoisier, the spouse of
the famous chemist, Antoine Laurent
Lavoisier.” As Chair-elect of the ACS
Chicago Section, he chaired the 2008
Willard Gibbs Medal Selection Committee
(resulting in the selection of Professor
Carolyn Bertozzi, UC Berkeley). Presently,
he serves as Chair of the ACS Chicago
Section in 2008. An elected national
councilor of the ACS, he serves on the
Safety Committee and chairs its Resources
Subcommittee.

Dr. Alanah Fitch earned a BA from Antioch
College (Ohio), an MS from the University
of Arizona, and a PhD from the University
After postdoctoral work at the University of
Wisconsin, Madison, and Northwestern
University, she came to Loyola as an
Assistant Professor in 1985, was promoted
to Associate Professor in 1991, and
achieved the rank of Professor in 1995.
Her research interests include a spectro-
electrochemical study of cross-linked
hemoglobin in which the oxidation/
reduction kinetics of a variety of cross-
linked hemoglobins are measured. Her
group has ascertained that the driving force
for autooxidation of hemoglobin is not the
electron transfer of the iron in the heme,
which has implications in the development
of stable blood substitutes. The next step
in this project is to develop clay-protein
matrices for spectroelectrochemical
sensing. The rationale behind this idea is
that the clay matrix will prevent
denaturation of the proteins enhancing the
stability and functionality of the proteins.
In the area of clay chemistry, her group is
interested in what controls the movement
of a molecule moves in nano-sized
negatively charged channels. By
understanding the molecular controls on
diffusion she hopes to tailor the clay to
either enhance or retard this diffusion. This
molecular tinkering will allow control the
diffusion of a pollutant under a waste site
(environmental research), the construction
of electroactive composites (nano-
batteries), and microbial fuel cells. Her
current research involves the electro-
chemistry of iron in the crystal lattice of
clays and/or supported as a nano-crystal
within the clay film, wherein she uses
molecular modeling, X-ray diffraction,
UV-vis evanescent wave spectroscopy,
and electrochemistry to monitor the
transport of the probes in thin (300-1000
nm thick) clay films. Another research
focus is the element lead, the second most
toxic species on the national toxic registry.
A lead-related project involves community-
driven environmental-lead research,
Dr. Jan Florián came to Loyola in 2002 as an Assistant Professor of Chemistry after eight years of research work at the University of Southern California, Los Angeles, and Charles University, Prague, where he had earned an MS and a PhD. In March 2008, he was promoted to Associate Professor with tenure. His research group consists of Petr Jerabek (research associate), James Borden (graduate student), and undergraduates, Leah Klein and Salem Jaflian. His laboratory research focuses on the development and applications of computer-simulation methods in biochemistry and enzymology. His group’s primary project addresses the replication fidelity of human DNA polymerase β, which plays a major role in DNA repair and which correlates with an incidence of cancer; this work is part of a $5-million collaborative National Cancer Institute (NCI) study involving researchers from the University of Southern California, Colorado State University, Yale University, the National Institute of Environmental Health Sciences (NIEHS), and Loyola. Since 2003, he has collaborated with researchers at The University Chicago to study the catalytic mechanism of adenylyl cyclase from the anthrax bacteria. In 2005-2008, Dr. Florián’s group published 18 articles in top international journals, including Proceedings of the Academy of Sciences of USA, the Journal of Molecular Biology, and Biochemistry. He proudly states that, “almost every day, a new research paper is published, somewhere in the world, which cites our work.”

Dr. Duarte Mota de Freitas earned a BSc with First Class Honors at the Imperial College, University of London, UK and a PhD at the University of California, Los Angeles. He came to Loyola in 1984 and achieved the rank of Professor in 1994. Dr. Freitas focuses on the investigation of the biochemical basis of bipolar disorder and hypertension; he employs non-invasive multinuclear NMR and fluorescence techniques to the study of the abnormal transport and binding properties of Li⁺, Na⁺, and Mg²⁺ ions in red blood cells, neuroblastoma cells, and purified G (guanine nucleotide-binding) proteins. This information is essential for obtaining an understanding at the molecular and cellular level of the roles of these metal ions in biological fluids in healthy and disease states. Other areas of his research include the biophysical investigation of abnormal transport of CI⁻ in cystic fibrosis, the biological and toxicological functions of vanadate, vanadyl, and cesium ions, as well as structure-function relationship studies of copper, zinc superoxide dismutase.

Dr. Daniel Graham received his undergraduate and graduate Chemistry degrees from Stanford University, Palo Alto, CA, and Washington University, St. Louis, MO, respectively. His doctoral research concerned the high-resolution molecular-spectroscopy and high-field optical-Zeeman effects surrounding the organic solid state at low temperatures. He pursued postdoctoral work at Boston University, studying laser and microwave spectroscopy under ultra-cold conditions. His family moved to Morgantown, West Virginia, where they spent four years. (There is a famous song from way back by Joni Mitchell about Morgantown. His family owns that record and still plays it from time to time.) Dr. Graham arrived at Loyola in the fall of 1987, bringing along two graduate students from West Virginia University to continue working with him. He has taught General Chemistry, Physical Chemistry, and special topics Chemistry courses. His research has evolved from molecular-spectroscopy projects to investigating the statistical structure of liquids, growing crystals, and studying organic compounds in solution environments. Over the years, these studies have led to Physical Chemistry papers, the most recent dealing with information theory and its applications to molecular structure and function; since 2000, his group has published six papers concerning information theory and organic compounds. He recently completed two manuscripts which address information theory coupled to classical thermodynamic transformations and irreversible processes under Brownian conditions. A full-length manuscript on the information properties of Ribonuclease A and site-substituted variants at the atom/covalent bond level is in progress. At Loyola, an interesting array of courses to teach and a wide range of research problems to pursue abound.

Dr. Albert Herlinger earned a BS in Chemistry (Hobart College, Geneva, NY) and a PhD in Inorganic Chemistry (Pennsylvania State University). His dissertation research involved the application of vibrational spectroscopy to the characterization of classical coordination compounds. He served as a postdoctoral research associate at the University of Illinois, Urbana-Champaign (Theodore L. Brown) in organometallic chemistry, using NMR spectroscopy to investigate bonding in alkylcobalt(III) chelates. Dr. Herlinger came to Loyola in 1972, and attained the rank of Professor of Chemistry. Currently, he teaches the General Chemistry lecture and laboratory courses for Chemistry majors. Current research activities reside in two distinct areas of chemistry, lanthanide/actinide separations and vanadium’s insulimimetic properties. A research leave in 2008-09 allowed him to spend time at Washington State University working with Kenneth Nash on novel bifunctional organophosphorus reagents for trivalent actinide-lanthanide separations. A LUC
Research Grant seeds his vanadium insulin-mimetic project in 2007-2008; Amanda J. Ziegler, his graduate student, and Dr. Herlinger coauthored a proposal entitled: “Protein Tyrosine Phosphatase 1B: A Target for Vanadium’s Insulin-Enhancing Behavior” which has been submitted to the American Heart Association. Recent publications include:


Dr. Richard Holz joined Loyola as Chemistry Department Chair and Professor in the Fall of 2006, coming from Utah State University (1992-2006). He earned an MS in Chemistry from the University of Minnesota-Duluth in 1986 and his PhD in Chemistry from Pennsylvania State University in 1989. His duties include serving on several university committees and the teaching of General and Inorganic Chemistry courses. His research interests interface the areas of mechanistic enzymology and biophysical chemistry, specifically the structure/function studies of metalloenzymes, which include the design, synthesis, and characterization of small molecules that function as potential inhibitors. His group uses a wide variety of biophysical methods, such as enzyme kinetics, site-directed mutagenesis, isothermal-litration calorimetry, and UV-vis, NMR, and EPR spectroscopies. Recently, his interests have moved into biomolecular nanotechnology, integrating the work on metalloenzymes with biomaterials by investigating nano- to micro-sized biologically powered motors, as well as biomolecule recognition at surfaces. Devices of this type have many potential applications, but offer new technologies for the design of molecular-detection devices. Currently funded by the National Science Foundation, “Mechanistic Studies on Dinuclear Metallohydrolases that are Novel Antibacterial Targets,” his research group focuses on ways to elucidate the roles of each metal ion in catalysis for the aminopeptidase from Aeromonas proteolytica and the dapE-encoded N-succinyl-L,L-diaminopimelic acid desuccinylase from Haemophilus influenzae (dapE). Using a mechanism-based approach, he seeks to design and synthesize a new class of antibiotics that target dapE. Dr. Holz is an invited speaker at the 237th American Chemical Society National Meeting, March 2009, and at the International Conference on Bioinorganic Chemistry, July 2009.

Dr. Ken Olsen earned a BS in Biochemistry from Iowa State University and a PhD in Biochemistry from Duke University. Subsequently, he performed post-doctoral research at Purdue University in protein crystallography (Michael Rossmann) before becoming an Assistant Professor of Biochemistry at the University of Mississippi Medical Center. Dr. Olsen came to Loyola in 1983 as an Associate Professor, achieving the rank of Professor in 1991, and served valiantly as the Chemistry Department Chair from 1993 to 2002. During his tenure at Loyola, he has acted as a Visiting Scholar at Harvard, Northwestern, and the University of Illinois at Urbana-Champaign. Dr. Olsen’s continuing efforts and interest lie in three different areas of research: 1. cross-linked hemoglobin as potential blood substitutes, 2. targeted photodynamic therapy agents, and 3. simulations of ligand-binding pathways in heme proteins. Currently, he directs eight Mulcahy and one Carbon undergraduate scholars working in his research laboratory. Many of Dr. Olsen’s undergraduate researchers have gone on successfully to graduate, medical, and other professional advanced degrees.

Dr. Martina Schmeling earned her undergraduate diploma (Diplom) from the Westfaelische Wilhelms University, Muenster, Germany, and a Doctor of Science degree from the University of Dortmund, Germany. She performed post-doctoral research at the University of Antwerp, Belgium, and Princeton University, NJ. She came to Loyola as an Assistant Professor in 1999 and was promoted to Associate Professor in 2005. Dr. Schmeling’s research interests focus on atmospheric chemistry, specifically, urban air pollution and its health effects, as well as global warming and climate change and impact on urban environments. Her group established two Loyola air-monitoring stations, at the Lake Shore Campus and at the Water Tower Campus, operational since the summers of 2000 and August 2007, respectively. The stations provide data on air pollutants, such as nitrogen oxide and ozone, and are equipped with a weather station. During the summer months, aerosols are also measured. These data are supplemented by other available data, including health statistics on asthma and lung cancer occurrence and data from the Toxic Release Inventory and Air Quality Index. From these data, maps are created for the Chicago metropolitan area using a geographic information system (GIS) to highlight “hot-spots” of high pollutants. One long-term goal is to identify, quantify, and characterize organic species and their chemical pathways in the urban atmosphere.

Dr. Olsen earned a BS in Biochemistry from Iowa State University and a PhD in Biochemistry from Duke University. Subsequently, he performed post-doctoral research at Purdue University in protein crystallography (Michael Rossmann) before becoming an Assistant Professor of Biochemistry at the University of Mississippi Medical Center. Dr. Olsen came to Loyola in 1983 as an Associate Professor, achieving the rank of Professor in 1991, and served valiantly as the Chemistry Department Chair from 1993 to 2002. During his tenure at Loyola, he has acted as a Visiting Scholar at Harvard, Northwestern, and the University of Illinois at Urbana-Champaign. Dr. Olsen’s continuing efforts and interest lie in three different areas of research: 1. cross-linked hemoglobin as potential blood substitutes, 2. targeted photodynamic therapy agents, and 3. simulations of ligand-binding pathways in heme proteins. Currently, he directs eight Mulcahy and one Carbon undergraduate scholars working in his research laboratory. Many of Dr. Olsen’s undergraduate researchers have gone on successfully to graduate, medical, and other professional advanced degrees.

Liaison Faculty to the University

Academic Council – Carole Szpunar
Faculty Council – Alanah Fitch
Graduate Council – Paul Chiarelli
Information Technologies – Eric Brown
Library – Daniel Becker
Pre-Health Advising – Carole Szpunar and Tim Thomas
Undergraduate ACS Affiliate – Tim Thomas
Faculty Funding

Dr. Jan Florián continues to receive National Institutes of Health (NIH) support within part of a $5 million collaborative National Cancer Institute (NCI) study involving researchers from the University of Southern California, Colorado State University, Yale University, the National Institute of Environmental Health Sciences (NIEHS), and Loyola.

Currently funded by the National Science Foundation (NSF), Dr. Rick Holz’s group focuses on ways to elucidate the roles of metal ions in catalysis for the aminopeptidase from Aeromonas proteolytica and the dapE-encoded N-succinyl-L,L-diaminopimelic acid desuccinyllase from Haemophilus influenzae (dapE).

Dr. Miguel Ballicora has been awarded an National Science Foundation Grant ($175,000) to study the evolution, structure, and function of the ADP-glucose pyrophosphorylase. This enzyme of great agricultural importance is responsible for the control and regulation of starch synthesis in plants.

Dr. Daniel Becker has received a PRF grant to study the palladium(II)-catalyzed asymmetric synthesis of alpha-substituted ketones, which are very valuable targets and intermediates in natural products and in the preparation of new pharmaceuticals.

Dr. Alanah Fitch had received NSF funds for a workshop on Remote Access of Instrumentation, which was held in Washington, D.C., July 2008.

Professors Emeriti

Dr. Bruno Jaselskis, Professor Emeritus of Chemistry, Loyola University Chicago, was born in Lithuania. After World War II, he worked in Germany for the United Nations Relief and Rehabilitation Administration and for the World YMCA. In 1949, he immigrated to the United States and earned a BS degree in Chemistry from Union College, Schenectady, NY, in 1952 and a MS (1954) and PhD from Iowa State University (1955). Subsequently, he pursued a teaching career at the University of Michigan, as an Instructor and an Assistant Professor. He joined Loyola in 1962 as an Assistant Professor, was promoted to Associate Professor in 1964, and achieved the rank of Professor in 1969. Retired in 1994, Dr. Jaselskis continues studies on some historical aspects of Chemistry. His career interests include the chemistry of inert gas compounds, the development of micro-analytical methods of analysis, and chemical amplification methods, resulting in 89 publications including original papers, review articles, and chapter contributions. Presently, Emeriti Professors Carl Moore and Bruno Jaselskis are co-authoring an extended monograph on the hydrogen ion.

Born in rural Franklin County, Kentucky and having attended a one-room country school, Dr. Carl Moore hails from Eastern Kentucky State Teacher’s College, where he earned a BS in Chemistry, 1939. He was employed briefly by National Distillers and, during the war, by Dupont in the Military Explosives Division. He earned an MS in 1947 and became an Instructor of Chemistry at the University of Louisville. In 1952, Dr. Moore was granted a PhD in Analytical Chemistry by Ohio State University. In 1962, he moved to Loyola that summer as an Assistant Professor, later achieving the ranks of Associate Professor and Professor. He served as Chemistry Department Chair (1977-1981), retired in 1986, and has held the title, Emeritus Professor, for more than 20 years. He boasts approx. 70 peer-reviewed publications and the mentoring of 15 PhD candidates; he has written a history of the Loyola Chemistry Department (published in 1993). In the works is a book on the hydrogen ion, coauthored by Bruno Jaselskis and Alfred von Smolinski; a paper co-authored by Bruno Jaselskis, ready for submission on defining the hydrogen ion; and a career/productivity study of Loyola’s BS Chemistry graduates (1952 – 1986).

Dr. Stephen F. Pavkovic, Professor Emeritus of Chemistry, Loyola University Chicago, earned a PhD in Chemistry from Ohio State University. He came to Loyola in September 1965, where he began working in the field of Inorganic Synthesis, subsequently shifting his interests to X-ray crystallography. From 1986 until 1993, Dr. Pavkovic served as Chair of the Chemistry Department. In December of 2003, he retired from the University as a Full Professor. Dr. Pavkovic retains an active interest in chemistry through his website devoted to structures of minerals (search "Interactive Minerals"). His more recent involvement with digital photography has gained some notice (and a few awards) at a judged local show. He maintains a second website for the display of his images. Since retirement Dr. Pavkovic has enjoyed taking classes in Spanish and recently returned from a second trip to Peru. His children and grandchildren have become the center of most of his activities and he enjoys frequent gatherings with them.
Non-Tenured Faculty

Baude

Originally from the Chicago area, Mary Baude attended Illinois State University in Normal, Illinois, earning a BS degree (Chemistry major, Math minor). After graduation, she taught chemistry and math at the high-school level and later taught General Chemistry at the community-college level. Mary then attended Loyola University Chicago, graduating with an MS degree in Chemistry and began working subsequently as a full-time laboratory instructor. The LUC General Chemistry Laboratory program serves approximately 1500 students each year. She enjoys this challenging and rewarding work and also enjoys living in the City of Chicago, horseback riding, skiing, and fishing.

Boerger

Angela Boerger received both her undergraduate and graduate degrees from University of Illinois at Urbana, where she studied Chaos Theory from an analytical perspective at the graduate level. Maintaining that interest in chaos theory, she also ponders various topics in the context of the philosophy of science. Ms. Boerger joined the Loyola laboratory teaching faculty in the fall of 1998, and has enjoyed designing the lab space itself and developing the curriculum into a General Chemistry laboratory sequence with breadth and depth; she has witnessed the program’s growth from 250 students to more than 700 students per semester. The third floor Flanner Hall facility has become the largest teaching laboratory on campus, in large part due to her efforts, accommodating 48 students at a time: its redesign into an electronic classroom has changed immeasurably the nature of pre-lab lectures. Ms. Boerger also applies her skills, assisting Dr. Chiarelli in the Quantitative Analysis laboratory. In addition to teaching chemistry, she takes great pleasure in teaching Tai Chi in the community, a 5,000 year old internal martial art, recognized for its health benefits resulting from improved relaxation, posture, balance, and breathing. Ms. Boerger practices the Yang style short form of Tai Chi, a moving meditation where relaxation is emphasized in the movement from posture to posture.

Deiss

Dr. Louis Deiss joined Loyola in the Fall of 2008 as a Biochemistry Laboratory Instructor.

Greene-Johnson

Dr. Willetta Greene-Johnson is a long-time instructor of Physics and Chemistry at Loyola.

Helquist

As an undergraduate, Dr. Helquist attended Carleton College in Northfield, MN where she earned a BA in Chemistry and Mathematics. She continued her Chemistry studies at Stanford University, receiving a PhD in Organic Chemistry. Dr. Helquist has taught courses in Organic Chemistry, General Chemistry, and the Physical Sciences. She joined the faculty at LUC in August 2007 as a Lecturer for the General Chemistry courses. Outside of the classroom, her interests include participating in outdoor sports, watching professional sports, baking, and knitting. She is enjoying getting to know Chicago through all of its fantastic restaurants.

May

Born in a small town in Kansas, just this side of “Dorothy’s rainbow,” Mr. May completed a BS in Chemistry (1986) and an MS in Synthetic Organic Chemistry (1989) under the direction of Timothy Lash, presently a Distinguished Professor, at Illinois State University. His research resulted in the isolation and characterization of twenty previously unreported compounds, structurally and chemically related to chlorophylls and hemes. Subsequently, he began teaching as an adjunct at several different community colleges – simultaneously. He came to Loyola in the fall of 2006 as a full-time instructor. Although not involved in research officially, Mr. May dabbles in the quantum topological explanation for the inverted retina. His students, for whom he has written letters of recommendation, often communicate their acceptance and/or their successful completion of various professional and graduate programs. Most recently, one of his Organic Chemistry students communicated her acceptance into Harvard Medical School.

Naleway

Dr. Conrad Naleway earned his BS degree in Chemistry at Loyola University Chicago and his PhD in Physical Chemistry at Notre Dame University; subsequently, he performed postdoctoral research at Manchester & Oxford, England (NSF Fellowship). Over the years, he has taught as part-time/adjunct faculty, primarily graduate or General Chemistry courses, becoming a full-time LUC faculty in the fall of 2006. Dr. Naleway’s interests include dental-caries research; he consults for Colgate and Johnson & Johnson. On-going research includes molecular dynamic modeling at Argonne National Laboratory. Additionally, his other interests...
include: radiation effects on aqueous environment (joint grant proposal in preparation) and revisiting research on lanthanide and actinide complexation using Spin Orbit/CI methods.

Shamsuddin

Dr. Mir Shamsuddin obtained a Doctor of Veterinary Medicine degree from Osmania University in India and worked as a veterinarian for two years. He came to Kansas State University for graduate work, where he earned a Masters of Science and a PhD in Biochemistry. Subsequently, he joined the University of Illinois Medical School faculty in 1972, and moved to the Northwestern University Medical School in 1975 as an Assistant Professor in the Department of Medicine. There he conducted research in the area of protein structure and hemoglobinopathies, discovering eight new hemoglobin variants and authoring several papers in these areas. In 1980, he moved to Pulmonary Medicine focusing on new research in the mechanism of asthma, a common pulmonary condition, and publishing several papers on the synthesis pathways of asthma and the PAF (platelets activating factor). For many years, Dr. Shamsuddin served the LUC Chemistry Department as a part-time faculty member, teaching General Chemistry, Organic Chemistry, and Biochemistry courses. Presently, he serves as full-time faculty, mentoring students and still interested in medical research.

Szpunar

Dr. Carole Szpunar joined Loyola in 2005 as a Senior Lecturer in Organic Chemistry. She earned a PhD in Physical Organic Chemistry (Prof. J.B. Lambert, Northwestern University) and an Executive MBA in International Business (University of Miami, Coral Gables, Florida). Her thesis work focused on the trace elemental analysis of human archaeological samples. She is a 30-year veteran of corporate and government research (in coal characterization and utilization) and of administration and line-management (Exxon companies and The University of Chicago’s Argonne National Laboratory). Two of her children are LUC alumnae who have gone on to medical school, one as a PhD/MD candidate. Her three adult children are Loyola Academy alumni, where her youngest currently studies as a Dumbach Scholar. Dr. Szpunar’s interests lie in the energy/environmental arena – coal characterization, utilization, and technology; coal supply and demand; environmental ramifications from fossil fuels; alternative fuels; and methane hydrates. For years, Dr. Szpunar has served on the LUC Academic Council, presently as the Chemistry Department’s representative and as a rotating chair on its Curriculum Committee; she also continues to serve as a requested member on the LUC Pre-Health Advising Committee.

Thomas

Mr. Thomas received a Masters degree in Chemistry from the University of Wisconsin, Madison. As a graduate student, he worked on the solid-phase peptide synthesis of Cyclosporin A, a potent immunosuppressive drug. Previously, Mr. Thomas obtained his Bachelors Degree with Distinction from the University of Minnesota, where he did undergraduate research with Dr. Ben Liu on the synthesis of Vitamin B6 analogs which are used in elucidating the mechanism of biosynthesis of deoxy sugars. Mr. Thomas began teaching at Loyola in 1995, serving primarily as the Coordinator of the undergraduate Organic Chemistry laboratories and also as a lecturer. Each semester, his two laboratory courses, Chemistry 225 and 226, enroll approximately 500 students; and he supervises 8-10 teaching assistants at any given time. Recent accomplishments include custom publishing of the Organic Chemistry laboratory manual. Mr. Thomas also serves as the advisor for the Loyola student affiliate of the American Chemical Society, and as a requested member on the LUC Pre-Health Advising Committee.

Staff

French

With stints in industry (Baxter Laboratories, 1982-1985), postdoctoral research (Argonne National Laboratory, 1990-1993), and government (U.S. Environmental Protection Agency, 1993-1995), Dr. French came to Loyola as the NMR Facility Manager in 1995. He supervises the facility; trains students, postdocs, and faculty in NMR utilization; and collaborates with research faculty (Daniel Becker). Dr. French earned his BS degree at Southern Illinois University and his PhD at Loyola University (advisor: David Crumrine). He has continued his education at the College of DuPage in computer science (2001-2002) and electronics (2005-2006) and has become certified in various NMR hardware and UNIX systems.

Grimm

It may be a quirk of fate that Mrs. Carol Grimm, Administrative Assistant, interviewed at Loyola on September 11, 2001; but she often is called upon to address student and faculty crises. Lucky for Loyola that she enjoys working with the faculty, the students, the staff, and the
public. Often, when one calls or comes to the Chemistry Department Office with a query or problem, she is the first one to help, or she finds someone who can do so. Carol is satisfied in her position, and those around her are thankful for her attitude and work ethic which reflects well on the whole department.

Office Coordinator, Ms. Denise Hall, came to Loyola as an Administrative Assistant in 1999; working with Dr. Ken Olsen (as Chemistry Department Chair until 2002). Since that time, she has been privileged to work with Dr. David Crumrine (as Chair, 2002 - 2006) and Dr. Richard Holz (as Chair, 2006 - present). Promoted to Office Coordinator, she considers her position challenging and rewarding. Her oldest daughter, Rachel, graduated from Loyola in May 2006, having earned a Bachelors degree in Communications and Women’s Studies. Her middle daughter, Renee, currently a Loyola senior, is working on a degree in Communications and Women’s Studies. Her youngest daughter, Amanda, her youngest grader, keeps her on her toes. Ms. Hall’s situation gives her the opportunity to work with and meet individuals of diverse backgrounds, interests, and career goals. She enjoys getting to know the students personally, whose hopes for the future are both inspiring and gratifying.

Alumni News

Amanda Jonsson (Olsen, 2003 summa cum laude) is currently finishing up her PhD work at the University of Washington (Valerie Daggett, http://students.washington.edu/ajonsson/), where she coordinates the dynamoeomics data base for protein folding: dynamoeomics.org. In the Daggett lab, Ms Jonsson has been using molecular-dynamics simulations to study protein folding – high temperature and/or low pH simulations in the protein-unfolding pathway. Specifically she has worked on small WW domains (model systems for beta-hairpin folding) and has compared her unfolding simulations to the experimental folding data. She is also a part of a larger project which is attempting to simulate a representative protein domain from each protein fold. In particular, she has identified the transition state in protein-unfolding simulations from 183 structurally diverse proteins. She continues to study the unfolding/folding pathways of the beta structure in proteins. This work extends her work with WW domains, although using larger proteins with conventional hydrophobic cores and additional secondary structural elements. It would appear that she has been very productive in the Daggett lab.

Congratulations to James Kiddle (PhD, 1993, Babler/Thompson) on his promotion to Associate Professor, with tenure, in the Department of Chemistry, Western Michigan University.

Congratulations to Jeffrey Trautmann (BA with Honors, 1996), who teaches at the College of DuPage, on being granted tenure. Patrick Henry’s student, Othman Hamed, returned to Jordan to accept a teaching position, leaving a U.S. industrial position.

Mr. Bert Kuehlhorn came to Loyola in 1998, serving officially as the Chemical Stockroom Manager and unofficially as the Chief Laboratory Technician (preparing solutions, chemicals, and apparati for most of the instructional student labs) and the “go-to-guy” or “Mr. Fix-It” for the Chemistry Department, its facilities, and its building. He hails from Chicago – Carl Schurz High School, Roosevelt University, and the Keller Graduate School, where he earned an MBA.

Ms. Stacey Lind joined the Chemistry Department in Fall 2006, as its Graduate Program Coordinator. After earning a degree in Marketing Communication from Columbia College, she held positions in both the corporate and small-business sectors. She states: “The warm and friendly environment here in the Chemistry Department is something I found very valuable since my first day. I enjoy assisting students in achieving their goals and progressing in the program.” And we are glad to have her.

After completing undergraduate work at DeVry University (BSEET, 1990), Mr. Phelan worked as an electronics technician with MKS Instruments, Inc., servicing vacuum systems and repairing instruments used to measure and control vacuum and the flow of gases. Subsequently, for nearly 12 years, he worked as a senior technician at Argonne National Laboratory’s Advanced Photon Source, where he acquired numerous electrical and mechanical skills; simultaneously, he attended the Illinois Institute of Technology (1992-1995), taking classes in the electrical engineering program. He presided over a small construction firm for 5 years, successfully constructing 13 new single-family homes and rehabbing another dozen or so. Mr. Phelan came to Loyola in 2008, and has single-handedly repaired many pieces of the department’s instrumentation; he hopes to improve the quality and functionality of the department’s aging instrumentation and equipment, electrically and mechanically. He was elected a Berwyn, IL, alderman and is up for reelection in 2009. Mr. Phelan is also a licensed realtor in Illinois and a member of the West Suburban Board of Realtors.
The Loyola University Chemistry Department reports 72 Bachelor DEGREES awarded over the last 3 years.

### July 2007–June 2008

**BS Chemistry**
- Eric Engstrom
- Danielle Kleinmaier
- Sandra Naegele
- Richard Park
- Matthew Sara
- Lynn Schmitt

**BS Chemistry with Biochemistry Emphasis**
- Saad Ahmad
- Adine Ayarzagotia
- Alexis Belisle
- Yasmine Butt
- Mariya Demidovich
- Jessica Hertel
- Andrius Lescauskas
- Mark Lichaj
- Bobby Louie
- Chichi Lu
- Melissa Manion
- Matthew Mcmahon
- Kristina Morgan
- Agnieszka Orlof
- Alpa Patel
- Ellen Rebman
- Anna Starus
- Willie Tran
- Patrycja Wierzbicki

**BA Chemistry**
- Ekaterina Yuvasheva

### July 2006–June 2007

**BS Chemistry**
- Sheryl Hanawalt
- Ali Jawaid
- Marlon Lutz
- Matthew Major
- George Pontikis

**BS Chemistry with Biochemistry Emphasis**
- Luai Abukhalaf
- Mariusz Babicz
- Michael Batir
- Aaron Chicano
- Elizabeth Graham
- Ronia Kattoum
- Melissa McMahon
- Patrick Murray
- Neil Parikh
- Moses Park
- Archana Patel
- Andrea Roman
- Nicholas Scalzitti
- Elizabeth Sweeney


**BS Chemistry**
- Marian Adly
- Aleksandra Gagacki
- Natalie Karst
- Shaheena Khan
- Bhavini Pardiwala
- Joseph Rundell
- Cyndi Sosnowski

**BS Chemistry with Biochemistry Emphasis**
- Nicola Armoush
- Jeffrey Bender
- Melanie Blasak
- Friedrich Fahnert
- Danielle Hoster
- Krystal Ioannou
- Miriam Kim

### Undergraduate Scholarships

**Robert A. Mode Memorial Scholarship for Chemistry**
- Available to a current Junior Chemistry major returning in the fall at Senior standing.
- 2008 – Nicholas Jones
- 2007 – Anna Starus
- 2005 – Jennifer Dulle
- 2004 – Daniel Carlson

**James H. Babler Chemistry Scholarship**
- $3000 – awarded to a Chemistry/Biochemistry major enrolled in the major’s Organic Chemistry course as a needs-based scholarship.
- 2008 – Kateryna Bakhmut

**Frank and Agnes Cassaretto Endowed Scholarship**
- $5000 – awarded to a Sophomore Chemistry major with established academic merit. This award has a needs component.
- 2008 – Nicholas Andrew White and Richard T. Pardilla
- 2007 – Nicholas Jones and Diane Flasch
- 2006 – Andrius Lescauskas and Michael Ting

**Fuchs Scholarship**
- $1500 – awarded to a Freshman student with outstanding scholarship. This award has a needs component.
- 2008 – Grzegorz Zaleski
- 2007 – Christopher Schumpp
- 2006 – Kenneth Ting

The Loyola University Chemistry Department recognizes outstanding students excelling in its Chemistry courses. Exceptional students are nominated by Chemistry Department Faculty and are presented at the American Chemical Society’s Annual Spaghetti Dinner at the end of each academic year.
UNDERGRADUATE AWARDS
Fr. Morrissey Medals – for the “outstanding student” in each year’s group of Chemistry Majors:

2008
Senior - Matthew McMahon
Junior - Diane Flasch
Sophomore - Shaun David Boyes
Freshman - Andrew Anfenson

2007
Senior - Elizabeth Sweeney
Junior - Bahijat Erogbogbo
Sophomore - Nicholas Jones
Freshman - Karl Johnson

2006
Senior - Haleema Qazi
Junior - Moses Park
Sophomore - Andrius Lescauskas
Freshman - Diane Flasch

American Institute of Chemists Award – for the “outstanding graduating senior who has demonstrated a record of achievement.”

2008 – Anna Starus
2007 – Moses Park
2006 – Shaheena Khan

Analytical Chemistry Award - for outstanding achievement in scholarship, awarded to the top student in Chemistry 215, Quantitative Analysis. The analytical award consists of an 8-month subscription to the journal, Analytical Chemistry.

2008 - Nicholas Jones
2007 – Ellen Rebman
2006 – Nicholas Scalzitti

Hypercube Scholar Award – for excellence in didactic classes such as Physical Chemistry and in Computation Chemistry Research.

2008 – Brandon Wisinski
2007 – George Pontikis
2006 – Friedrich Fahner

Merck Index Award – for the top Senior-Class student.

2008 – Ellen Rebman
2007 – Nicholas Scalzitti and Luai Louis Abukhalaf
2006 – Shaheena Khan

CRC Press Freshman Achievement Award - in recognition of outstanding scholastic achievement in Chemistry during the Freshman year. The award consists of the 84th Edition of the CRC Handbook of Chemistry and Physics.

2008 – Randy Bard
2007 – Elizabeth Glismann
2006 – Brandon Wisinski

Professor Cassaretto Medal and $500 – for outstanding scholarship coupled with generous service to the Chemistry Department.

2008 – Sandra Nagele and Danielle Kleimaier
2007 – George Pontikis and Ali Jawaid
2006 – Cyndi Sosnowski and Jennifer Dulle

RELATED UNIVERSITY-WIDE RECOGNITION
We present here the Loyola Center for Urban and Environmental Research and Policy’s (CUERP’s) recent Carbon Scholars.

2008 – 2010 Carbon Scholars

Scholar: Alyssa Kuschel
Faculty Mentors: Ken Olsen (Chemistry) and John Olson (Biochemistry, Cell Biology) Rice University
Project Title: The Effects of Mutations on Oxygen Binding to Myoglobin: Computational and Experimental Studies.

Scholar: Michal Olszewski
Faculty Mentors: Nancy Tuchman (Biology), Pamela Geddes (Biology), Shane Lishawa (Biology), Alanah Fitch (Chemistry), and Daniel Larkin (Chicago Botanic Garden)
Project Title: Effects of Invasive Plant Species on Wetland Denitrification and Greenhouse Gas Emissions.

2007-2009 Carbon Scholars

Scholar: Martin Bezener
Faculty Mentors: Martina Schmeling (Chemistry), Martin Buntinas (Mathematics), David Treering (Geographic Information Systems).
Project Title: Air Quality Studies in Chicago

Scholar: Christine Falaschetti
Faculty Mentors: Ken Olsen (Chemistry, computational modeling) and Miguel Ballicora (Biochemistry)
Project Title: Molecular Mechanisms for the Control of Starch Production in Plants

Scholar: Frank Garcia
Faculty Mentors: Ken Olsen (Chemistry) and Michael Mardent (Biology, INSERM, Paris, France)
Project Title: Computational and Experimental Studies of Oxygen Binding to Neuroglobin

The Chemistry Mulcahy Scholars for 2008 – 2009 – listed below with their mentors – will be celebrated at a symposium on April 29, 2009. These undergraduate scholarships are made possible through the generosity of the Mulcahy Family and Dr. Arthur Lurigio, Program Director.

Jessica Bates - Olsen
Diane Flasch (Spring) - Ballicora
Maxime Herouix - Olsen
Salem Jaflian - Florian

Nicholas Jones - Crumrine
Gary Kurilimk - Olsen
Alyssa Kuschel - Olsen
Merry Le - Olsen

Silviya Ozdemir - Ballicora
Tasso Papagiannopoulos - Olsen
Millie Parkara - Chiarelli
Lilia Santos - Becker

Angelica Schief - Schmeling
Monica Urdu (Fall) - Ballicora
Hailey Wouters (Spring) - Becker
Graduate News

The Loyola University Chemistry Department proudly reports the award of 12 PhD and 12 MS DEGREES in the last 4 academic years. Presently, numerous PhD candidates and MS candidates are hard at work performing research with Chemistry Department Faculty.

July 2008 – to date

**PhD**
Pamela Kramer (Olsen)
Christopher Malarkey (Freitas)
Prakash Sanjeevaiah (Crumrine)
Guoyan Wang (Freitas)
Basel Zaitoun (Crumrine)

**MS**
Chirag Bhagat
Ann Barbara Chelse
Gideon Ifianayi
Eugenia Lucas
Robert Schneidewend

July 2007 – June 2008

**PhD**
Augustine Agyeman (Fitch)
Eugene Tarasov (Olsen)

July 2006 – June 2007

**PhD**
Sharada Buddha (Fung)
Ping Hu (Olsen)

**MS**
David Bolos
Alessandra Gagacki
Cyndi Sosnowski
Preeti Syal


**PhD**
Tinamarie Fosco (Schmeling)
Lan Gao (Chiarelli)
Stephen Golden (Olsen)

**MS**
Foster Amoako
Hrabrina Hristova
Kieran Normoyle

AWARDS

**Dumbach Award for Excellence in Chemistry:** This award consists of receiving a medallion and being added to the archived list of prior awardees. Nominees have demonstrated superior research activity and excellent scholarly achievement.

- 2008 – Christopher Malarkey
- 2007 – Augustine Agyeman
- 2006 – Lan Gao

**Best Teaching Assistant Award:** This award consists of receiving a certificate and a $500 check. Nominees receive high marks on their student evaluations, in addition to a nomination from their direct supervisor.

- 2008 – Ashley Freeman
- 2007 – Andria Panagopoulos
- 2006 – Amanda Ziegler

Gifts from Alumni and Others

Dr. James Babler has recently established a needs-based scholarship fund that awards $3,000 annually to a Chemistry or Biochemistry student enrolled in the major’s Organic Chemistry course. He has renewed this award for a 2nd year.

Mr. and Mrs. Steven Sarussi continue to make donations to fund the James Babler Undergraduate Research Scholarships. Mr. Sarussi earned a bachelor and a master’s degree, awarded by Loyola in 1982 and 1985, respectively. Other donors include: Ken and Beth Spina and William and Mary Ellen Bauta.

The Chemistry Department recently received $36,000 toward its established Frank and Agnes Cassaretto Endowed Scholarship Fund. Current-year Cassaretto-Scholarship Supporters include:
- the Helen Brach Foundation (R. Matthew Simon, Executive Director) $30,000
- Polk Bros. Foundation (Sandra Guthman, Chair/CEO and Nikki Stein, Executive Director) $5,000
- Mr. Raymond Simon and Mrs. Mary Cassaretto Simon $1,000.

We wish to thank Margaret Huston (deceased) who established the John L. Huston, PhD, Traveling Fellowship, which provides financial assistance in travel connected to academic work by graduate students in the Department of Chemistry.

We also wish to thank ALL past Chemistry Department donors, including:
- Kenneth Fivizzani
- James Cleary
- Philip and Patricia Chenier
- William and Mary Ellen Bauta
- Robert and Mary Porod
- Steven and Therese Sarussi
- Al Nabhani, President, Quantum Chemical Technologies

When considering a financial gift to Loyola, be sure to specify application of funds to Loyola University Chicago’s DEPARTMENT OF CHEMISTRY. Feel free to designate its intended use, e.g., undergraduate scholarship, graduate scholarship, student symposia travel, dedicated seminar series, new instrumentation, new facilities, or wherever needed by the Chemistry Department. Please send to:

LUC DEPARTMENT OF CHEMISTRY
Attn: Department Chair, Dr. Richard Holz or Fundraising Committee Chair, Dr. James Babler
In Memoriam

Dr. Frank Dias

Frank Dias, a long-time Chemistry Instructor, Loyola University Chicago, passed away on August 25, 2007. Having arrived from India in the 1970s with a baccalaureate degree, Dias proceeded to earn an MS and a PhD in 3-1/2 years under the mentorship of Bruno Jaselskis in Analytical Chemistry. He held various positions working in industry – at Velsicol Corporation, while earning an MBA at The University of Chicago, at Nutrasweet, as the NMR Manager, and at Waste Management, where he organized the Inorganic Division and supervised the Robotics Laboratory. For the robotics work, Dr. Dias merited an international award which was presented to him in Switzerland. After “retiring” from industry in 1994, he came to Loyola in 1996, serving as a laboratory instructor and later as a teacher of General Chemistry. He was an avid proponent of student-led peer learning.

Dr. Patrick Henry

Patrick Henry, Professor Emeritus of Chemistry, Loyola University Chicago, died on October 18, 2008, in a hospice facility near his Wilmette, Il, home. Born in Joliet, IL, Dr. Henry was raised in Chicago, IL, where he earned a BSc and MSc from DePaul University (1951) and a PhD from Northwestern University (1953) in Inorganic Chemistry under the direction of Ralph Pearson and in collaboration with Fred Basolo. Dr. Henry began his career in industry at the Hercules Inc. Research Center (currently Ashland) in Wilmington, DE. After many years of technical research, he moved to academia, joining the University of Guelph (in Ontario, Canada, near Toronto) as an Associate Professor of Chemistry in 1971, and was promoted to the rank of Professor in 1972. Returning to Chicago in 1981, he came to Loyola, where he served as Chair and Professor in the Department of Chemistry until 1986; he continued to serve as Professor until his retirement from Loyola in 2004. Dr. Henry spent most of his career exploring the reactions of olefins by transition-metal ions with an emphasis on Pd(II)-catalyzed systems, particularly in asymmetric syntheses and including the Wacker process. In addition to numerous papers, he wrote a book entitled Palladium-Catalyzed Oxidation of Hydrocarbons, published in 1980; he had recently submitted a proposal to the ACS Petroleum Research Fund and has a paper accepted (awaiting publication) for publication in Catalysis Communications. Dr. Henry is survived by his three children, William, Thomas, and Eileen Mahon, and four grandchildren; his wife, Eileen, died in 2006.

Dr. Robert Denkewalter

Bob Denkewalter passed away on November 19, 2008. After graduating from Loyola with a BS degree (1939) as one of the Chemistry Department’s outstanding undergraduates, he earned a PhD from The University of Chicago (1943). He is primarily known for his work at Merck, Sharp & Dohme, where, as a productive researcher, he became Director of Research at Merck, late in his career. While at Merck, Dr. Denkewalter achieved the total synthesis of ribonuclease A in 1969; he assigned award money from this effort to Loyola University in honor of Professor Frank Cassaretto, establishing the Loyola Chemistry Department’s Denkewalter Lectures and initiating the seminar series with the first Denkewalter Lecture on April 22, 1970, entitled, Ribonuclease, the Synthesis of an Enzyme. Early on, he attended most of these lectures. In 1979, H. Gobind Khorana of MIT presented a Denkewalter Lecture entitled, Total Synthesis of a Biologically Functional Gene. At this lecture, Emeritus Professor Carl Moore “had the pleasure of introducing Khorana to Denkewalter,” as the person who was the first to have synthesized a biologically functional gene to the person who was the first to synthesize the enzyme ribonuclease. According to Dr. Moore, after that Khorana lecture, the speaker, Dr. Denkewalter, several visitors, and a few faculty crowded into the office of Dr. Moore, toasting the event with “a little brandy and a couple of bottles of good sherry.” The ensuing “delightful wide-ranging talk with these two great researchers went on until some of our wives appeared at the door at around midnight and said, ‘OK guys, enough of this! It’s time to break it up and go home.’ ”
Faculty Publications 2007


Faculty Publications 2008


April 17, 2009
Friday, 5 p.m.
Flanner Hall
Loyola University

Denkewalter Lecture

features Professor Rustem F. Ismagilov of The University of Chicago, focusing on chemical approaches to systems biology. Dr. Ismagilov is the recipient of the 2008 ACS Award in Pure Chemistry (host Ken Olsen).