



# Pitt Chemistry Reaction

ISSUE 2 FALL 1995

## COMINGS & GOINGS

**Jumi A. Shin**, Assistant Professor, AB, Harvard University, 1986; Ph.D., California Institute of Technology, 1992; American Cancer Society Postdoctoral Fellow, The Scripps Research Institute, 1992-94. Professor Shin joined the Department in January 1995.

Our research in bioorganic chemistry focuses on molecular design of proteins with specific recognition features. Such research is of significant interest as proteins effect a myriad of tasks within the cell through protein-DNA and protein-protein interactions and through protein interactions with specific molecules and ions. One of our efforts involves the prediction and design of specific protein-DNA interactions. No simple code exists for protein-DNA recognition. Nature, however, has evolved highly conserved protein motifs capable of sequence-specific DNA recognition. Because the protein  $\alpha$ -helix is well-characterized and so commonly used in nature, examination of how  $\alpha$ -helices interact with short DNA duplexes promises to be a manageable and informative strategy to elucidate the often complex mechanism employed by full proteins. We are designing synthetic peptides based on the leucine zipper motif. These peptides will be used to retrieve specific sequences from a randomized DNA library. The resulting information may ultimately permit the design of proteins that can bind specific DNA sequences and vice versa.

Protein-protein interactions are just as mysterious. Pollutants, such as dioxin, are known to damage organisms by entering the cell and disrupting normal processes. Many xenobiotics bind to a receptor complex comprised of two

proteins. This protein-protein recognition event is examined by synthesis of the protein-protein interface. An understanding of the cellular processes enabling pollutants to damage cells may provide a means for modulating the deleterious effects of toxic compounds.

In December, 1994 **David Hercules** resigned from the Department of Chemistry to become the Chairman of Chemistry at Vanderbilt University. The move followed a 19-year tenure here at the University of Pittsburgh.

Professor Hercules earned his B.S. degree from Juniata College in 1954 and his Ph.D. from M.I.T. in 1957. He joined Pitt in 1976 as a Professor of Analytical Chemistry, was the Chairman from 1980-1989, and from 1991 until his departure was the first Miles Professor of Chemistry at the University. Dr. Hercules was responsible for hiring a number of the current faculty, including Professors Asher, Coalson, Cooper, Curran, Hamilton, Hopkins, Waldeck, Wilcox, and Yates. To date, Dr. Hercules has advised 32 doctoral students and 8 masters students who have graduated at Pitt, in addition several more doctoral students who are finishing

In recent years, his research interests have focused on the analytical chemistry of surfaces and solid-state mass spectrometry, which involves such areas as catalysis, polymers, quantitative methodology, surface oxidation and modification, and trace analysis, using an array of spectroscopic techniques. The Department wishes Prof. Hercules all the best as he starts this new endeavor.

## FACULTY ACCOLADES

**Sanford Asher** was the ACS-Analytical Division Spectrochemical Analysis Award winner presented at the ACS meeting held in Anaheim, CA this past Spring and a Dow Lecturer at the University of British Columbia.

In March **Rob Coalson** was awarded the Chancellor's Distinguished Research Award (Junior Division) for the University of Pittsburgh.

**Paul Dowd** was Chair of the Physical Organic Gordon Research Conference held in Plymouth, NH in July 1995. In August and September, several newspapers at the *New York Times* and the *London Daily Telegraph* featured his work with graduate student, Barbara Zheng, published in PNAS, "On the Mechanism of the Anticlotting Action of Vitamin E Quinone."

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**Dennis Curran** has been named Associated Editor for the Americas for the prestigious international journal *Tetrahedron Letters* effective July 1, 1995.

**Andrew Hamilton** and **Craig Wilcox** were co-chairs of the NATO Conference on Molecular Design and Bioorganic Catalysis held at Pitt-Johnstown in May 1995.

(continued inside)



## FACULTY ACCOLADES

(continued from cover)

**Ken Jordan** was awarded the Chancellor's Distinguished Faculty Research Award for the University of Pittsburgh in March and was recently appointed an Affiliate Staff Scientist for Pacific Northwest Laboratory.

**David Pratt** has been awarded a Visiting Fellowship at both Exeter College and Oxford University for the Spring term. He also was elected Chair of the Gordon Conference on Molecular Electronic Spectroscopy and Dynamics for 1994-1997.

In October at the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Meeting in Cincinnati, **Patrick Treado** and his collaborators at NIH were recognized for the best applied spectroscopy paper in 1994 for this paper, "Indium Antimonide (InSb) Focal Plane Array Imaging Microscopy."

**Steve Weber** was elected Chair for the Gordon Research Conference on Bioanalytical Sensors to be held in Ventura, CA in January 1996.

**Craig Wilcox** was awarded a Monbusho Fellowship from the Japanese Ministry of Education, Science and Culture. He was a visiting scholar on the Faculty of Engineering at Kyoto University, and lecturer at Kyoto, Tokyo, Kyushu, and Osaka during the month of October.

In the past few months **Peter Wipf** has been named as a recipient of the Camille Dreyfus Teacher-Scholar Award, the Merck Young Investigator Award, and the Zeneca Excellence in Chemistry Award.

**John Yates** has been honored with a von Humboldt Prize from Germany. Professor Yates will use the fellowship from the Summer of 1995 through the Fall of 1996 while he is on sabbatical at Department of Physics of Philipps University-Marburg

Gas-Aerosol Interaction Kinetics (Department of Energy)

**Sanford A. Asher**, *In situ* UV Raman Spectroscopy (Materials Research Center-AFOSR)

Laser Eye Protection (Materials Research Center-AFOSR)

UV Resonance Raman Studies of Protein Structure (National Institutes of Health)  
Fabrication of Novel Nanoscale Periodic Smart Materials for Switchable Membrane Separators and Novel Electro-Optical Devices. (Office of Naval Research collaboration with Professor Coalson)  
Novel Materials and Devices from Self-Assembled Periodic Structures (Air Force Office of Scientific Research)

**David N. Beratan**, Designing Macromolecular Electron Delivery Systems for Artificial Biocatalysis (Department of Energy)

Electron Transfer in Complex Systems (National Science Foundation)

Mapping of Electron Tunneling Pathways in Proteins (National Institutes of Health)  
Inverse Design of New Materials (Materials Research Center-Air Force Office of Scientific Research)

**Toby M. Chapman**, New Fluorinated Polyurethanes with Enhanced Stability and Exceptional Properties (Office of Naval Research)

**Rob Coalson**, Quantum Wavepacket Dynamics Techniques: Application to Condensed Phase Systems (National Science Foundation)

Fabrication of Novel Nanoscale Periodic Smart Materials for Switchable Membrane Separators and Novel Electro-Optical Devices (Office of Naval Research collaboration with Professor Asher)  
Theory and Modelling of Colloid Crystals (Materials Research Center-Air Force Office of Scientific Research)

**Theodore Cohen**, Synthetic Uses of Novel Reactive Intermediates (National Science Foundation)

(Materials Research Center-Air Force Office of Scientific Research collaboration with David Hercules)

Synthesis and Reactivity of Complexes of Transition Metals in Negative Oxidation States (National Science Foundation)

**Dennis P. Curran**, Natural Products Synthesis by Sequential Radical Reaction (National Institutes of Health)  
Mechanistic and Synthetic Studies of Novel Organic Transformations (National Science Foundation)

**Paul Dowd**, Synthesis of Vitamin K Models (National Science Foundation)  
Mechanism of Action of Vitamin K (National Institutes of Health)  
Synthesis and Study of Non-Kekule Molecules (National Science Foundation)  
Novel Ring Enlargement and Annulation Reactions (National Institutes of Health)

**Michael F. Golde**, Electron-Ion Recombination and Ion-Molecule Reaction Processes Relating to Planetary Atmospheres (NASA)

Systemic Changes in the Undergraduate Curriculum: A Workshop in Chemistry Curriculum. (National Science Foundation collaboration with City University of New York)

**Joseph J. Grabowski**, Mechanistic Investigations Into Fundamental Organic Reactions (National Science Foundation)

**Andrew D. Hamilton**, Molecular Recognition in Biomimetic Receptors (National Institutes of Health)

Hydrogen-Bonding Control of Molecular Self-Assembly (National Science Foundation)

Modulation of the Action of PCP by Monoamines and Polyamines (National Institutes of Health collaboration with Department of Pharmacology)

ras Farnesylation Inhibitors: Rational Cancer Drug Design (National Institutes of Health collaboration with Department of Pharmacology)

**Michael D. Hopkins**, Synthesis of New

writing a book on innovative experimental methods in surface science.

## EXTERNALLY FUNDED RESEARCH PROJECTS

Below is a sampling of the externally funded projects of our faculty.

**Pamela M. Aker**, Morphology Dependent Stimulated Raman Scattering Studies of

**N. John Cooper**, Development of an Inorganic Optical Memory System: Reversible and Irreversible Photobleaching of d<sup>1</sup>-d<sup>1</sup> Dimers with Linear Oxo Bridges (Office of Naval Research)  
Synthesis of New Optically Nonlinear Materials from Metallo-Organic Compounds and Polymers (Materials Research Center-Air Force Office of Scientific Research collaboration with Michael Hopkins)  
Transition Metal Catalysis and Catalysts

**Michael D. Hopkins**, Synthesis of New Optically Nonlinear Materials from Metallo-Organic Compounds and Polymers (Materials Research Center-Air Force Office of Scientific Research collaboration with John Cooper)  
Synthesis, Bonding and Properties of Conjugated Transition Metal Complexes and Polymers (National Science Foundation)

**Kenneth D. Jordan**, Electron Scattering Studies of Temporary Anion Formations in Hydrocarbons (National Science Foundation collaboration with University of Nebraska)

Theoretical Studies of Molecular Ions and Clusters (National Science Foundation)

**Tara Meyer**, Ring-Opening Metathesis Polymerization of Inorganic Monomers (Central Research Development Fund).

**Adrian C. Michael**, Acetylcholine Sensors for Measurements in Brain Tissue (National Institutes of Health.)

**David W. Pratt**, Dynamics of Electronically Excited States. Models for Chemical Reactivity (National Science Foundation)

**Rex Shepherd**, FeII Complexes as NO Scavengers in Sepsis (Research Corporation)

**Jumi A. Shin**, DNA Binding Site Selection by the Basic Motifs of Leucine Zipper (Pittsburgh Cancer Institute-NIH)

**Patrick J. Treado**, Quantitative Fluorescence Imaging of Adhesion Promoting Thin Film (Ford)

**David H. Waldeck**, Time-Resolved Optical Studies Charge Relaxation and Charge Transfer at Electronic Interfaces. (Department of Energy)  
Time-Resolved Spectroscopic Studies of Hydrogen-Bonded Molecular Complexes (National Science Foundation)  
Improving the Erosion-Corrosion Resistance and the Localized Corrosion Resistance of Cupronickel Alloys in Sea-Water (Office of Naval Research collaboration with Materials Research Center)

**Gilbert C. Walker**, Infrared Pump/Probe

Total Synthesis of Natural Products (National Science Foundation)  
Synthesis of Curacin A (American Cancer Society)

**John T. Yates**, Elementary Steps in Chemical Bond Formation and Bond Breaking (Department of Energy)  
New Approaches to Aluminum Passivation for Corrosion Prevention (Air Force Office

of Scientific Research)  
Schottky Barrier Modification of Photocatalysts for Environmental Cleanup (Army Research Office)  
High Performance Materials in Optoelectronics (Materials Research Center-Air Force Office of Scientific Research)  
Nanometer Dimensional Control of Elementary Chemical Processes (Office of Naval Research)

# BACCALAUREATE BRAVOS

## FALL 1994 STUDENT AWARDS

**MESSER AWARD** ..... Brian Strazisar  
**SILVERMAN AWARD** ..... Carl Rest  
**ANALYTICAL AWARD** ..... Lee Martin  
**FRESHMAN AWARD** ..... Kristin Hogan

## SPRING 1995 STUDENT AWARDS

**PHILLIPS MEDAL** ..... Rich Johnston  
**MARY LOUISE THEODORE PRIZE** ..... Brian Strazisar  
Kristen Kasputis  
**LUBRIZOL SCHOLARSHIP** ..... John Schrecengost  
Diane Luci  
**SACP COLLEGE AWARD** ..... Carl Rest  
**AMERICAN INSTITUTE OF CHEMIST AWARD** ..... Adam MacLuckie  
**MERCK AWARD** ..... Walter Klein  
John Carney

Terry Allen Kellar II, B.S.  
*Magna Cum Laude*  
Douglas Richard Kolson, B.S. *Cum Laude*  
Leroy Ladely, Jr., B.S., CGS  
Lucinda Mann-Kanny, B.S., CGS  
Michael Allen Michalec, B.S.  
James F. Patton, B.S., *Cum Laude*  
Paul Alvin Robb, B.S., CGS  
Heather J. Wilhelm, B.S.

## SPRING 1995 B.S. RECIPIENTS

Jason Matthew Anders, B.S.,  
*Cum Laude*  
Brett James Becker, B.S.  
John Francis Carney, IV, B.S.,  
*Cum Laude*  
Sandra Lee Carter, B.S.  
Nicholas A. Caruso, B.S.  
Amy Leigh Crocetti, B.S.  
Jeffrey Alan Dyer, B.S.  
Aaron S. Engel, B.S.  
Heather Ann Gordish, B.S.  
Anish Gupta, B.S.  
Cody Quentin Heinbaugh, B.S.  
Adam Richard Huffman, B.S.  
Richard Alan Johnston, B.S.,

Studies of Protein Conformational Change  
(American Cancer Society)

**Stephen G. Weber**, Potentiometric  
Sensors and Extraction Media for  
Carboxylates (National Science  
Foundation)  
Sensitive and Selective Detection of  
Peptides (National Institutes of Health)  
Forced Dissociation of Complexes of  
Biomolecules (Office of Naval Research)  
Forced Dissociation of Metal Ion  
Complexes (Naval Research Laboratory)

**Craig S. Wilcox**, Chemistry of Receptor  
Models and Functional Group Arrays  
(National Institutes of Health)

**Peter Wipf**, Synthesis of Natural  
Products with Oxazole Moieties (National  
Institutes of Health)

### LORD SCHOLAR

AWARD ..... Mark Braun  
Jeffrey Niederst  
Tom Hu  
Sean Richardson

VALSPAR AWARD ..... Carl Rest  
Suzhen Ruan  
Shaun Pardi  
James Tremblay

## FALL 1994 B.S. RECIPIENTS

Diane Elizabeth Altland, B.S.,  
*Magna Cum Laude*  
Blaise Paul Blastos, B.S.  
Jennine Marie Brown, B.S.  
Mark Allen Brown, B.S., CGS  
Heather E. Burik, B.S.

*Summa Cum Laude*  
Kristen A. Kasputis, B.S.,  
*Magna Cum Laude*  
Adam Thomas MacLuckie, B.S.  
Patrick John Maley, B.S.  
Jean Marie Mayher, B.S.  
Mark Andrew Mikus, B.S., *Cum Laude*  
Michael Anthony Miller, B.S.  
Dennis Stanley Norkiewicz, B.S.  
John George Pastorius, B.S.  
Gregory Pokrajac, B.S.  
Gregory David Porter, B.S.  
Carl C. Rest, B.S., *Magna Cum Laude*  
George Anthony Rogan, B.S.  
Janet Denise Sherman, B.S.  
Brian Robert Strazisar, B.S.,  
*Summa Cum Laude*  
Jennifer Kristen Stuck, B.S.,  
*Cum Laude*  
Eric Matthew VanDamia, B.S.  
Joan Wendy Vukson, B.S.

# GIFTS TO THE DEPARTMENT

We are pleased to acknowledge gifts to the University of Pittsburgh Department of Chemistry. The Chemistry Department has four funds which received regular contributions during Fiscal Year 1994-95. The **Pam Basu Memorial Fellowship** was established in 1993 to commemorate a former Ph.D. graduate, Pam Basu, who was killed in a tragic carjacking in 1992. The fund is intended to support doctoral students in the Department, especially women. The **Mary Louise Theodore Prize** is given to two outstanding undergraduate chemists each year, honoring one of the more active analytical chemists in the area. After years of service to the Pittsburgh chemistry community, Mrs. Theodore died in 1992. The **Frederick Kaufman Memorial Fund** was established in honor of the former chairman to support the annual Kaufman Memorial Lecture Series. The **Chemistry Annual Giving Fund** provides support both for undergraduate student and graduate student efforts. The Department gratefully acknowledges these donors.

**PAMELA BASU  
MEMORIAL  
FELLOWSHIP**

## MARY LOUISE THEODORE FUND

Michael N. Carmosino  
Dr. and Mrs. Richard A. Erth  
Stephen H. Harwig  
Helen M. Howard  
W. Richard Howe  
Richard Katz, ENG'79; ENG'86  
M. Sandra Lambert  
V. M. Marcy  
Abigail E. McGuire  
Raymond J. McKeever, CAS'50  
Dr. Foil A. Miller  
Charles L. Page  
Mrs. Mary-Jane Mitchell Page, EDU'48;  
EDU'53  
Jon Nathaniel Peace, M.S. '79  
Mr. and Mrs. Charles J. Seibel, Jr.  
Mr. and Mrs. Mark O. Stypula  
Richard W. Stypula, Sr., M.D.  
Dr. and Mrs. Richard Walter Stypula, Jr.,  
MED'78  
Michael Theodore  
Terry M. Theodore  
Jane N. Valenta, Ph.D.'94  
Francis Karl Vent, CGS'69  
Dr. and Mrs. S. Rand Werrin

**FREDERICK KAUFMAN  
MEMORIAL FUND**

Loriann Steinhart Cicchini, OD, CAS'87  
Professor Theodore Cohen  
Colonel James L. Dick, M.S.'48  
Vincent Michael Donnelly, Ph.D.'77  
Dr. B. Blandin Drake, FAS'41  
Cynthia L. Funtal  
Joseph A. Gardella, Jr., Ph.D.'81  
Dr. Durwin L. Gates, CAS'77  
Mrs. Shirley Brown Gaudreau, CAS'59  
Jeffrey Mark Gold, M.S.'80  
Robert G. Haldeman, M.S.'49; Ph.D.'52  
James B. Harrison, Ph.D.'52  
Alvin Richard Ingram, Ph.D.'55  
Lawrence George Irr, CAS'74; Ph.D.'78  
Patricia Brown Isaacs, CAS'59  
Patricia Broun Jacobs, Ph.D.'86  
Richard A. Jacobs  
William Joseph Jordan, CAS'73; Ph.D.'79  
Diane Elizabeth Junker, Ph.D.'91  
Becky Thomas Kerns, M.S.'55  
Eugene E. Ketchen, Ph.D.'50  
Donald E. Koontz, M.S.'48; Ph.D.'51  
Dr. John A. Koschak, CAS'85  
Kenneth A. Kuiken, Ph.D.'43  
Bruce M. Larue, CAS'48  
Dr. Peter H. Leonard, CAS'50  
Christopher L. Lien, Ph.D.'77  
Fu-Tyan Lin  
Kevin John McKaveney, CAS'79  
James Henry Meas, Jr., CAS'79  
Professor Foil A. Miller  
Dr. John T. Minor, M.S.'46  
Jennifer Lynn Mueller, CAS'93

## FELLOWSHIP

Hedy G. Abromovitz, CAS'73  
Kesagapillai Balasanmugam, Ph.D.'85  
Richard J. Bertozzi, Ph.D.'72  
Julie L. Boyer, CAS'91  
Philip Frederick Brode, III, Ph.D.'80  
Mrs. Sherry T. Brown, FAS'78  
Eric Timothy Cain, CAS'89  
Christina Hadinata Chi, PHA'73  
Faye Francy, M.S.'82  
Susan Terese Rifenburg Gonze, CAS'92  
Dr. Dale E. Johnston, CAS'72; M.S.'75  
Dr. and Mrs. G. Stephen Kelsey, CAS'69;  
Ph.D.'75  
Fu-Tyan Lin  
Abigail E. McGuire  
Gary M. Nobel  
William Plummer, Ph.D.'56  
Jack Erwin Solomon, CAS'63; M.S.'66;  
LAW'73  
Stanley Jerome States, CAS'70; Ph.D.'77  
Janet Ziskind Tarino, Ph.D.'72  
Zhi Xu, Ph.D.'91

Vincent Michael Donnelly, Ph.D.'77  
Deana Schoch Foley, CAS'81; M.S.'85;  
EDU'89  
W. Richard Howe  
Mrs. Klara S. Kaufman  
Michael S. Kaufman  
Frederick Elliot Kiviat, Ph.D.'68; ENG'78  
Mr. and Mrs. Edison Montgomery  
Wilson Terry Rawlins, Ph.D.'77  
Joseph Michael Thomas, Ph.D.'86

## CHEMISTRY ANNUAL GIVING FUND

Sonia E. Atwood, CAS'73  
James H. Benedict, Ph.D.'50  
Gary Thomas Beveridge, CAS'79  
Katrnya Bogovich, Ph.D.'76  
Martin John Brady, CAS'75; M.S.'80  
Peter Brasko, II, CAS'64  
Mrs. Sondra Frisbie Budge, CAS'75;  
M.S.'76  
Paul Alfred Cain, Ph.D.'75  
John P. Carter, CAS'53  
Sebastian Charles Caruso, Ph.D.'54  
Dr. J. Blake Casher, CAS'70  
Nicholas Christ, CAS'51; FAS'57

Dirk Neyhart  
Joseph John Oshanka, CAS'76  
Carl Osuch, Ph.D.'55  
Claron R. Payne, Ph.D.'31  
Elvio Piccolino, CAS'89  
Luann M. Pugh, CAS'80; Ph.D.'84  
Virginia G. Ramsey, CAS'38; Ph.D.'46  
Paul W. Rasmussen  
Melinda Susanne Rau, CAS'86  
Mr. and Mrs. William Henry Reed, III,  
CGS'72  
Mrs. Lisa Mastrangelo Rich, CAS'84  
Professor Hurd W. Safford, Ph.D.'41  
Herbert H. Seltzman, Ph.D.'73  
James Knight Sneed, Ph.D.'51  
Dr. and Mrs. Jay Richard Sommers  
Ph.D.'66  
Brian R. Strohmeier, Ph.D.'84  
Michael D. Swerdloff, Ph.D.'72  
Sharon Gayle Walbert, CAS'92  
Welcome I. Weaver, Ph.D.'43  
Mark Ralph Weinberger, CAS'79  
Andrew Alan Wist, M.S.'75  
Ralph Earl Yingst, Ph.D.'65  
Joseph L. Zagorac  
Dr. and Mrs. Derrick Stephen Zingg,  
Ph.D.'79



# GRADUATE AWARDS 1994-1995

### SAFFORD GRADUATE TEACHING

AWARD ..... Melinda Alward  
Natalya Balabay  
Lynn Bretscher  
Brian Linton  
Anthony Nicola  
Jason Ribblett  
Margaret Stevenson

MILES FELLOWS ..... Rebecca Davis  
David McElfresh

KAUFMAN  
FELLOW ..... Gidget Cantrell

ARISTECH FELLOW .. Keith Bellomo

LUBRIZOL  
FELLOW ..... Zdenek Dohnalek

As of July 1995 the Department has  
three current National Science Foundation  
Graduate Fellows:

Melinda Alward, Jane Johnson and David  
McElfresh

*Ion Mass Spectrometry*", December 1994  
(Hercules). von Humbolt Fellow at the  
University of Münster.

**Inkyung Lee**, "Synthesis and Reactivity  
of Highly Reduced Carbenoid Complexes  
of Chromium", December 1994 (Cooper),  
Research Scientist, Samsung-Korea.

**Hui Liu**, "Part I 4+1 Radical  
Annulations: Synthesis of  
Cyclopentaquinolines with Isonitriles via  
Sequential Radical Cyclizations. Part II  
Formal Total Synthesis of (±)-  
Camptothecin and Its Derivatives via 4+1  
Radical Annulation.", December 1994  
(Curran). Postdoc, University of  
California-Irvine.

**James Pfanstiel**, "High Resolution  
Optical Spectroscopy of Conjugated  
Molecules. Polyenes and Psuedo  
Polyenes", December 1994 (Pratt).  
Westinghouse-Bettis, Pittsburgh, Pennsyl-  
vania.

*Studies of DNA-Carcinogen Interaction  
and Peptide & Protein Conformation*"  
April 1995 (Asher). Postdoc, UCLA.

**Hong Yong Kim**, "Part 1. Total Synth-  
sis of Cyclotheonamide A" "Part 2.  
Synthesis of Ortho Esters From α-Amino  
Acids" "Part 3. Synthesis of 7-  
oxabicyclo[2,2,1]hepta-5-en-yl Deriva-  
tives", April 1995 (Wipf). Postdoc,  
University of Michigan.

**Joseph Manna**, "Chemistry of Tungsten  
Methylidyne Complexes", April 1995  
(Hopkins). Postdoc, University of Utah

**David Muddiman**, "Characterization  
Immunosuppressants by Time-of-Flight  
Secondary-Ion and Matrix-Assisted Laser  
Desorption/Ionization Mass Spectrom-  
etry", April 1995 (Hercules). Postdoc,  
Pacific Northwest Laboratories.

**Petr Nachtigall**, "Application of Quan-  
tum Chemistry", April 1995 (Jordan).  
Research Scientist, Academy of Sciences

MCEfresh.

## MASTER DEGREES FALL 1994-SPRING 1995

**Michael Collins**, December 1994 (Dowd)  
**Renee Fossum**, December 1994  
(Hamilton)  
**Qingwu Jin**, December 1994 (Wilcox)  
**William Wilkinson**, December 1994  
(Hercules)  
**Moon-Hwan Yoon**, December 1994  
(Curran)  
**Fangping Chen**, April 1995 (Cohen)  
**Ann Marie Cognetti**, April 1995  
(Hercules)  
**David Lineman**, April 1995 (Hercules)  
**Yi Lu**, April 1995 (Michael)  
**Zhijun Wu**, April 1995 (Asher)

## PH.D. DEGREES FALL 1994-SPRING 1995

**Jeffrey Albert**, "Approaches Toward the Recognition of Biological Macromolecules Using Synthetic Substrates as Models for Specific Binding Interactions," December 1994 (Hamilton), Postdoc, California Institute of Technology.  
**Lucinda Hittle**, "Characterization of Polymers by Time-of-Flight Secondary

**Jane Valenta**, "The Development of Enhanced Extraction Media for Phenobarbital Based on Hydrogen Bond-Directed Molecular Recognition", December 1994 (Weber). PPG Industries, Allison Park, Pennsylvania.

**Paul Zimmerman**, "Practical Applications of Time-of-Flight Secondary Ion Mass Spectrometry", December 1994 (Hercules). Intel Corporation, Portland, Oregon.

**Namjun Cho**, "UV Resonance Raman

Research Scientist, Academy of Sciences, Czech Republic.

**Dana Nachtigall**, "Theoretical Studies Electronically Excited States", April 1995 (Jordan). Postdoc, Academy of Sciences, Czech Republic.

**Hongyan Qi**, "Asymmetric Radical Additions and Cyclizations", April 1995 (Curran). Postdoc, Drexel University.

**Thomas Webb**, "Molecular Recognition of Neutral Acyclic Compounds in Aqueous Media", April 1995 (Wilcox).

## SPECIAL SEMINARS FOR 1995-96

**Fredrick Kaufman Memorial Lectures:** Dr. Carleton Howard, National Oceanographic and Atmospheric Administration, September 14, *Stratospheric Ozone Depletion: Progress In Understanding Its Causes*, and Professor Veronica Bierbaum, University of Colorado at Boulder, September 15, *Kinetics and Dynamics of State-Resolved Ion-Molecule Reactions*.

**Bayer Lectures** - Professor Harry B. Gray, California Institute of Technology, November 20, *Electron Transfer in Biological Molecules* and November 21, *Spectroscopy and Electron Transfer in Inorganic Molecules*.

**Pittsburgh Conference Lecture** - Professor John Albery, FRS, University College-Oxford, April, *New Electrochemical Sensors in Medicine and Biology and Transition-State Theory Revisited*.

**Phillips Lecture** - Dr. Janet Osteryoung, Director, Chemistry Division, National Science Foundation, April, *Titles to Be Announced*.

## WHERE ARE THEY NOW...

A number of alums took a moment to fill out the card we enclosed with the last newsletter, to give us an update on where they're working and (in some cases), what they are up to. Do keep us informed.

**Alan W. Abel**, B.S. 1961, Ph.D. 1967, Retired from Chemical Abstracts Services in 1994.

**Ellis Abrams**, B.S. 1983, Ph.D. 1942, Retired Director of Research for Houghton International, Inc., Valley Forge, PA. (Father to Elliot Abrams, Vice-President of AccuWeather and heard regularly on KDKA...daughter, Cindy, a Financial Officer with METTRA.)

**John C. Harrington**, B.S. 1982, Polymer Research Scientist, Betz Paperciary, Jacksonville, FL.

**John V. Heid**, M.S. 1948, Retired, Erie, PA.

**Frederick P. Hooper**, M.S. 1992, Laboratory Director, American Reclamation Corporation, Ashland, MA.

**Laura Hovath**, M.D., B.S. 1977, Physician, Yale University School of Medicine.

**Susan G. Hitchins**, B.S. 1982, Sony Engineering and Manufacturing of America, Mt. Pleasant, PA.

**Jerry A. Jenkins**, Ph.D. 1970, Professor and Chairman, Otterbein College, Westerville, OH.

**Steven A. Koch**, B.S. 1979, Advisory Scientist, Surface and Materials Analysis

**Rosalyn Polsky Peller**, M.S. 1961, Lab Manager, Sarah Lawrence College, Bronxville, NY.

**John B. Penn**, B.S. 1981, Quality Assurance Supervisor, Hercules Inc.-Jefferson Plant, West Elizabeth, PA.

**Luann Pugh**, B.S. 1980, Ph.D. 1984, Research Associate, deNemars and Company.

**Robert J. Radnoti**, B.S. 1972, M.S. 1974, Trace Evidence Unit Supervisor, Maryland State Police Crime Lab.

**Tyraine D. Ragsdale**, B.S. 1988, Research Scientist, R.W. Johnson Pharmaceutical Research Institute, Spring House, PA.

**Keith Ramig**, Ph.D. 1988, Lead Scientist

**Barbara Jean Anderson**, B.S. 1983, Technical Manager of Antistats and Nonwovens, PPG Chemicals Group Research Center.

**Charles L. Ayers**, B.S. 1971, Deceased.

**A. Richard Baldwin**, Ph.D. 1943, Retired from Cargill, Inc.

**Raymond T. Chlodney**, B.S. 1979, Technology Director, Lilly Industries Inc., Jamestown, NY.

**Patricia J. Barns Colangelo**, B.S. 1992, Chemistry/Biology Teacher; Science Olympiad Coach, Boyertown Senior High School.

**Charles R. Coughenour**, B.S. 1982, M.S. Information Sciences, 1986, Health Care Analyst, Blue Cross of Western Pennsylvania.

**Milton N. Donin**, M.S. 1944, Ph.D. 1948, Retired from CIBA-Geigy, Pharmaceuticals Division.

**Joseph F. Ennis**, B.S. 1979, Engineering Manager, American Electric Power, Columbus, OH.

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