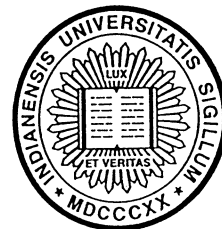


ASSOCIATION OF INDIANA UNIVERSITY CHEMISTS



NEWSLETTER



Vol. XXXIX, No. 1

College of Arts & Sciences Alumni Association

Winter/Spring 1994

NOTES FROM THE CHAIR

I am pleased to welcome **Glenn Martyna** as a new faculty member. Glenn joined us in January as part of the interdisciplinary Computational Sciences Program. He received a PhD from Columbia in 1989 and just completed an NSF research associateship at the University of Pennsylvania. He works in one of the most exciting and active fields in theoretical chemistry involving state-of-the-art methodologies.

Earlier this year **Charles Paget** (PhD'63, Purdue University) was appointed adjunct professor in the department. Chuck has been involved with IU for a number of years during his tenure at Eli Lilly. In addition, he was recently appointed to serve on the Board of Overseers of the Department of Chemistry. Chuck's involvement with IU began while his sons were in school on the Bloomington campus in the 1980s, and now we claim him as one of our own.

Once again the Department of Chemistry ranks first in the number of BS graduates in the nation for 1991-92, the last year for which figures are available. Grant income exceeds \$7 million per year, thanks to an active and exceptional group of faculty who, in addition to research, manage to teach, respond to lecture invitations, and serve on departmental, university, and national committees. In 1993, our faculty collectively published more than 200 articles, participated in more than 230 invited addresses and colloquia, and won eight national and international awards and five important university distinctions.

Six of our faculty members have received awards since our last newsletter. **George Christou** was the recipient of the 1993 Dwyer Medal and was the associated 1993 Dwyer Memorial Lecturer. The medal is awarded by the Uni-

versity of New South Wales in memory of Francis Patrick Dwyer, who held a chair in biological inorganic chemistry at the Australian National University, Canberra, until his death in 1962. Dwyer was one of the pioneers in bioinorganic chemistry. **Gary Hieftje** received the College of Arts & Sciences Distinguished Faculty Award based on his outstanding strengths in research, undergraduate and graduate teaching, and service to his profession, university, and state. **Ron Hites** received the Founders Award, given by the Society of Environmental Toxicology and Chemistry (SETAC). The award is presented to an individual who has had an outstanding career with continuous contributions that have had an impact on the environmental sciences. **Milos Novotny** was awarded a Jan E. Purkynje Memorial Medal from the Czech Academy of Sciences in Brno (Czech Republic). This medal is given in recognition of advisory service to the Czech government on reorganization of the research and educational institutions in the country since the revolution of 1989. Novotny was also the co-recipient of a 1993 R&D 100 Award. He and his associates, Vladislav Dolnik and Kelly Cobb, developed a highly effective process for the preparation of gel-filled columns for capillary electrophoresis. The process was patented and developed into a commercial product (gel-filled capillaries). It was selected by *Research & Development* magazine as one of the 100 most significant new technical products of the past year. **William Roush** was named the recipient of a 1994 Arthur C. Cope Scholar Award, presented annually by the ACS to recognize and encourage excellence in organic chemistry. **Ted Widlanski** was chosen to receive the 1993-94 Indiana University Out-

standing Young Faculty Award. Congratulations to all.

Through a generous bequest from the estate of Trula Sidwell Hardy, widow of Russel Leo Hardy, BA'22, MA'23, an undergraduate scholarship was established in 1993. The Russel Leo Hardy and Trula Sidwell Hardy Chemistry Scholarship will exist in perpetuity and will aid deserving undergraduate students.

Following tradition, the department will host a complimentary alumni breakfast at the spring ACS meeting in San Diego on Tuesday, March 15, 1994, at 7:30 a.m., in the Horton Grand, Regal C. Please make reservations with me by March 1 at (812) 855-6239 and plan to join us.

I want to thank each of you who have supported the Department of Chemistry through your generous donations in 1993. Your support and loyalty are important to our continuing growth and prosperity.

—Paul A. Grieco

Ode to Campaigne

Benadryl, Thenfadil
Ernest Edward Campaigne
He liked to put Sulfur in useful
drugs.

Thiophene is really a good
aromatic.
Replacing the benzene takes
out the bugs.

—Anon.

DEPARTMENTAL NEWS

Faculty News

Malcolm Chisholm will spend his sabbatical leave, January to August 1994, at Cambridge, England, working with various faculty there and elsewhere in Europe.

Jack Crandall returns from spending first semester 1993-94 on sabbatical leave at the Ecole Normale Supérieure, Paris, working with Professor Sinay.

Paul Grieco traveled to England to present lectures at the Pfizer Summer Chemistry Symposium, Pfizer Limited, Sandwich, and also at Glaxo Limited, Ware. In October, he returned to England to present a lecture titled "Cycloaddition Reactions in Lithium Perchlorate-Diethyl Ether" at the Cycloaddition Chemistry in Synthesis Symposium sponsored by the Society of Chemical Industry. While in England, he also presented a lecture at Glaxo Limited, Greenford facility, and participated in the Mereside Chemical Society Research Colloquia Programme, Zeneca Pharmaceuticals, Macclesfield.

Gary Wiggins served as chair of the Division of Chemical Information, which celebrated its 50th anniversary of its founding as the chemical literature group

of the Division of Chemical Education, at the fall ACS meeting in Chicago.

Peter Kovacic served as visiting professor in organic chemistry for the first semester of 1993-94. He is research professor emeritus at the University of Wisconsin, Milwaukee.

George Ewing visited the University of Alaska at Fairbanks in November. He is interested in physical and chemical characteristics of "arctic haze" and is planning a collaborative study with Professor Glenn Shaw, a geophysicist there. George reports that during his visit, the daily high temperature was about -20 °F!

George Christou was one of 12 U.S. chemists invited to speak at the first Korea-U.S.A. Inorganic Chemistry Conference in Seoul, South Korea, in April, where he toured a number of Korean industrial and academic institutions. He spent four weeks in May and June as a Wilsmore Fellow at the University of Melbourne, Australia, followed by a series of lectures at several other Australian Universities.

Alexandra Newton spoke on "Biological Regulation by Protein Modification" at the Indiana Molecular Biology Symposium VII, held at the Indiana Memorial Union in October.

Around IU Chemistry

• The fall semester has seen visits from several distinguished speakers in the special lecture series. Presenting DuPont Distinguished Lectures were **William R. Heineman**, of the University of Cincinnati, on the subject of "Electro-chemical Immunoassay: Zeptomole Detection Limits" and **Leo E. Manzer** of DuPont, on "CFC Phase-Out: The End of One Era and the Beginning of Another."

Heineman received a BS degree from Texas Tech and a PhD from the University of North Carolina - Chapel Hill. He has been at the University of Cincinnati since 1972, where he is a distinguished research professor. Recent awards include the George Rieveschl Jr. Award for Distinguished Scientific Research (U. of Cincinnati, 1988) and the Humboldt Prize (West Germany, 1990). His research interests include biosensors, optically transparent thin layer electrodes, bioelectrochemistry, radiopharmaceuticals, electrochemical immuno-assays, and EXAFS spectroelectrochemistry.

• Manzer is director of the Corporate Catalysis Center in DuPont's Central R and D unit. He was born and educated in Canada, receiving a PhD in chemistry

Staff News

On Sept. 10, 1993, a major milestone was observed with a reception honoring the retirement of **Elizabeth Greene**. Greene, who has filled a wide variety of positions during her long tenure with the chemistry department, started her career at IU on July 1, 1942. She will continue to work on a part-time basis as secretary to Professor Day and as the departmental archivist.

Several new appointments have been made since the last newsletter. **Alice Dobie-Galuska** has taken the position of assistant coordinator of general chemistry, starting in August. **Michael Squires**, who transferred from computer science, commenced in October as manager of instructional computing. Senior NMR spectroscopist-molecular modeler **Mark Pagel** came from the University of California, Berkeley, in November. **Greg Barrett-Wilt** started in January as a replacement for **Paula Wood**, mass

spec technician. **Brian Ferguson** replaced the retired **Richard Martin** in the mechanical instrument shop, starting in July.

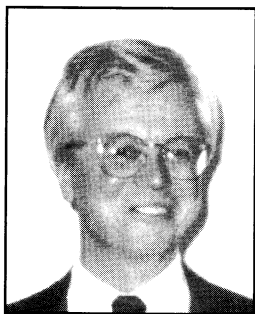
Anne Powers-Beck, Professor Novotny's secretary, left with her husband for a position in Tennessee. Her position is now filled by **Mary Hannah**. Hannah is replaced by **Eleanor Boardman**, who had worked in the chair's Office. She is now secretary for Professors Creager, Gajewski, Jenkins, and Richardson. **Janice Bishop** left the undergraduate office in June and has been working in the schools at Martinsville.

Two further additions to the extended chemistry family have been celebrated. **Marci Briles**, Professor Hieftje's secretary, had a son in August, and **Stacy Felton**, secretary for Professors Campaigne, Carmack, Shiner, and Williams, gave birth to a daughter in October.

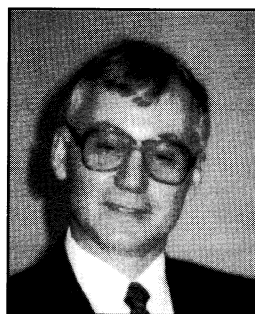
—Lloyd Hudson



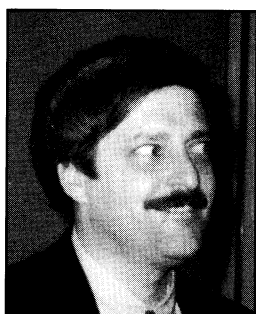
Elizabeth Greene stands beside the tree commemorating her many years of service to the chemistry department.



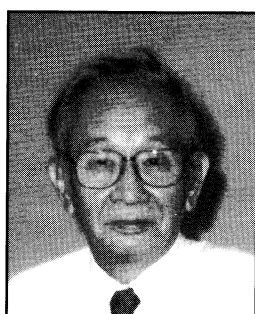
Heineman



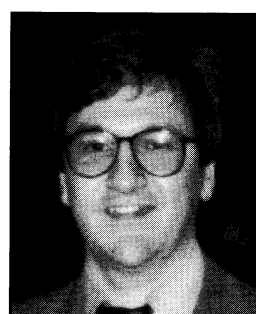
Manzer



Hart



Nakanishi



Parkin

from the University of Western Ontario in 1973. During his career, he has held management positions in Delaware and Texas and recently served on a National Research Council panel on "New Directions in Catalytic Science and Engineering." He is also an adjunct professor in the departments of Chemical Engineering, Chemistry, and Biochemistry at the University of Delaware.

• A Dow Distinguished Lecture was given by **Gerald W. Hart**, chair of the Biochemistry and Molecular Genetics Department at the University of Alabama, who spoke on "Glycobiology: The Last Great Frontier in Biochemistry." Hart is a graduate of Washburn University and received a PhD in developmental biology in 1977 from Kansas State. After post-doctoral studies with William Lennarz at Johns Hopkins University School of Medicine, he was appointed to the medical school faculty at Johns Hopkins in 1979. He rose to the rank of professor there before moving to the

University of Alabama at Birmingham in 1993. He is editor-in-chief of *Glycobiology* and serves on the editorial boards of several other journals.

• Professor **Koji Nakanishi** of Columbia University gave one of the Eli Lilly Lectures on "Photoaffinity Labeling of Rhodopsin, Bacteriorhodopsin, and Nicotinic Acetylcholine Receptor." Nakanishi received his bachelor's degree in chemistry from Nagoya University in 1947. He completed two years of graduate study with Louis Fieser at Harvard, then returned to Nagoya, where he completed his PhD in 1954. Nakanishi served on the faculties of three Japanese universities before moving to Columbia in 1969. In 1980, he was named Centennial Professor, and he served as chair of the Columbia Chemistry Department in 1987-90. He was a founding member and a director of research at the International Centre of Insect Physiology and Ecology in Kenya from 1969 to 1977. He served as director of the Suntory

Institute for Bio-organic Research in Osaka from 1978 to 1991. Koji Nakanishi also is recognized as a leader in the development of micromethods for elucidating the structures of bioactive substances. He has determined the structures of more than 160 naturally occurring bioactive compounds. The "Exciton Chirality Method," a circular dichroic technique for determination of absolute stereochemistry of organic molecules is also one of his many scientific contributions. He has received honors from many countries. His recent awards include the Imperial Prize of the Japan Academy (1990), Arthur C. Cope Award (1990), Nichols Medal (1992), and the Scheele Prize of the Swedish Academy of Pharmaceutical Sciences.

• A Monsanto Distinguished Seminar was presented by **Gerard F. R. Parkin** of Columbia University. His topic was "Multiple Bonding Between Early Transition Metals and Chalcogens." Parkin's degrees, BA, MA, and D.Phil.; are from Queen's College of Oxford University. In 1985, he moved to CalTech as a NATO postdoctoral fellow; subse-

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Indiana Silicon Sphere Update

The Indiana Silicon Sphere, a high-geometry nuclear particle detector designed to search for a phase transition in hot, expanding nuclear matter, underwent its baptism of fire during October and November at the Laboratoire National Saturne in Saclay, France. Beams of 2-5 GeV ^3He ions were used to bombard targets of silver and gold in these studies. The detector consists of successive spherical shells (~15 cm radius) made up of 162 elements of gaseous ionization chambers, 0.5 mm thick silicon wafers and 2.8 cm thick crystals. These "telescopes" measure the atomic number, kinetic energy, and position of all charged particles with $Z \leq 15$ produced in energetic nuclear reactions, thus permitting the recreation of explosion-like phenomena.

Construction of the \$615,000 detector was supported by the U.S. Depart-

ment of Energy and Indiana University. Project director was senior scientist Kris Kwiatkowski, and a large fraction of the precision construction work was performed by the mechanical instrument and electronic instrument shops in the Department of Chemistry.

Three graduate students completed their theses during these initial successful experiments: Kevin Morley (physics), Erin Renshaw (chemistry), and David Bracken (chemistry)—all of whom played major roles in detector development. Other IU Chemistry participants in the project included Janusz Brzychczyk (postdoctoral), Todd Hamilton (graduate student), Keith McDonald (graduate student), Chris Powell (undergraduate), and Vic Viola (professor). The detector has recently been moved back to IU, where it will next be used at the Indiana University Cyclotron Facility.

Harry Day's Book

Copies of Harry G. Day's book, *The Development of Chemistry at Indiana University in Bloomington, 1829-1991*, are available for purchase. The prices are as follows: \$20 plus \$2.50 shipping, for the soft cover book (\$22.50 total) and \$25, plus \$2.50 shipping, for the hard cover book (\$27.50 total). Please make your check payable to Friends of Chemistry, and mail with your name and shipping address to Book Order, Chair's Office C125, Department of Chemistry, Indiana University, Bloomington, IN 47405.

DEPARTMENTAL NEWS

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quently, he joined the faculty of Columbia University (1988) and was promoted to associate professor in 1991. He is the recipient of the American Chemical Society Award in Pure Chemistry for 1994. His research interests include synthetic, structural, and mechanistic inorganic chemistry and transition metal complexes with metal-ligand multiple bonds.

• Additional special lectures scheduled for Spring semester 1994 are:

Richard H. Holm (Harvard): (Amoco Lecture) Jan. 12, "Recent Problems in Biologically Related Metal Cluster Chemistry."

Dallas L. Robenstein (U. of California-Riverside): (Eli Lilly Lecture) Jan. 19, "Some Aspects of the Chemistry of the Neurohypophyseal Hormones."

Edward A. Dennis (U. of California - San Diego): (DuPont Lecture) Feb. 9, "Structure, Function, and Regulation of Phospholipase A₂."

Stephen J. Lippard (MIT): (DuPont Lecture) March 23, "Methane Monooxygenase."

Edward S. Yeung (Iowa State): (Dow Lecture) March 30, "Chemical Analysis of Individual Human Red Blood Cells."

Fred Wudl (U. of California - Santa Barbara): (DuPont Lecture) April 6, "Recent Advances in the Chemistry of Buckminsterfullerene, C₆₀."

Joshua Jortner (Tel Aviv Univ.): (DuPont Lecture) April 27, "Clusters: Bridging Between Molecular, Surface, and Condensed Matter Chemical Physics."

• The Department also enjoyed a return visit and seminar by R. Mark Wightman, former IU faculty member, now at the University of North Carolina. Mark's seminar subject was "In Vivo Electrochemistry Revisited."

• Since 1979, the Department has maintained a Board of Overseers to annually review and make recommendations concerning the use of private departmental support funds. These include endowments for named lectures, scholarships, and fellowships, as well as undesignated funds such as Friends of Chemistry. Members are appointed to the board by the chair of the department. One new member, Dr. Charles J. Paget Jr., was appointed this fall to replace Max Marsh, who had served on the board since its inception. Current members are professors Chisholm (chair), Bair, Campaigne, Grieco, Peters, and Shiner (ex officio); Outside members are W. LeSuer, C. Paget, and N. Sommer.

STUDENT NEWS

Graduate News

• PhD recipients with area, research professor, and first position accepted for the 1992-93 academic year are: **Julio C. Arce** (chemical physics, P.W. Langhoff), Tulane University, New Orleans, postdoc.

Otto T. Berg (physical, G. E. Ewing), University Groningen, Netherlands, postdoc.

Donna S. Brestensky (organic, J.M. Stryker), University of Minnesota, Minneapolis, postdoc.

Donna S. Carter (analytical, R.A. Hites), U.S. Geological Survey, Indianapolis, environmental chemist.

Stephanie T. Chacon (inorganic, M.H. Chisholm), California Institute of Technology, Pasadena, postdoc.

Paul S. Coan (inorganic, K.G. Caulton), University of South Carolina, Columbia, postdoc fellow.

Jon L. Collins (organic, P.A. Grieco), Harvard University, Cambridge, postdoc fellow.

Cindy M. Cook (inorganic, M.H. Chisholm), Vista Chemical Co., Austin, Texas, research chemist.

John F. Daeuble (organic, J.M. Stryker), Indiana University, Bloomington, postdoc.

Stanley K. Dunn (physical, G.E. Ewing), Centre College, Danville, Ky., assistant professor.

Cheryl L. Flurer (analytical, M.V. Novotny), U.S. Food & Drug Administration, Cincinnati, research chemist.

Todd J. Johnson (inorganic, K.G. Caulton), University of Utah, Salt Lake, postdoc.

Thomas W. Kreek (physical, J.J. Gajewski), Cambridge Scientific Co. Inc., Cambridge, Mass., computational chemist.

Linda D. Martin (biochemistry, B.A. Polisky), Iowa State University, Ames, postdoc.

David E. Modrak (biochemistry, J.P. Richardson), Tufts University, Medford, Mass., postdoc fellow.

Megan Murphy (organic, W.R. Roush), Feneca Pharmaceuticals Group, Wilmington, Del., research chemist.

Leif P. Olson (organic, J.J. Gajewski), University of California, Los Angeles, postdoc.

Mark R. Parthun (biochemistry, J.A. Jaehning), Northwestern University,

Evanston, Ill., postdoc.

Jason T. Poulton (inorganic, K.G. Caulton), Bridgestone/Firestone Inc., Akron, Ohio, research chemist.

Laura M. (Quattrocci) Racine (physical, G.E. Ewing).

Stephen C. Racine (chemical physics, E.R. Davidson), NASA, Moffet Field, Calif., research associate.

David P. Sebesta (organic, W.R. Roush), University of Colorado, Boulder, postdoc.

Osamu Shirota (analytical, M.V. Novotny), Shiseido Research Center, Japan, research chemist.

Erik B. Tjaden (inorganic, J.M. Stryker), University of Iowa, Iowa City, postdoc.

Greg A. Urove (analytical, D.G. Peters), DuPont Central Research and Development, Wilmington, Del., analytical chemist.

Michael S. Van Nieuwenhze (organic, W.R. Roush), Scripps Research Institute, LaJolla, Calif., postdoc fellow.

James B. Wakefield (inorganic, J.M. Stryker), University of Kentucky, Lexington, postdoc fellow.

Qing Wang (biochemistry, M.W. Taylor), Cell Genesys Inc., Foster City, Calif., postdoc.

Zhong-Quan Zhao (chemical physics, C.S. Parmenter), University of Colorado, Boulder, postdoc.

• Recipients of master's degrees are **Kristine K. Anderson** (P.A. Grieco), **Stephen D. Barrett** (P.A. Grieco), **George F. Dorsey** (D.R. Williams), **Stuart F. Easley** (G.M. Hieftje), **Harry J. Elston** (C.S. Parmenter), **Anuradha S. Gunale** (G. Christou), **Dave E. Huseland** (J.M. Stryker), **Jill A. Jablonowski** (W.R. Roush), **Gregory A. Marinelli** (K.G. Caulton), and **Thomas Schuster** (J.K. Crandall).

—Pat Stapleton

Undergraduate News

This fall, **Dennis G. Peters**, Briscoe Professor of Chemistry and associate chair, continued as coordinator of undergraduate studies. **Holly Willett** continued as academic counselor and manager of the Chemistry Placement Office.

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Chemistry Library News

Many of the CD-ROM products formerly available only on stand-alone workstations in separate IUB science libraries are now accessible over the IUB Libraries LAN. These include Science Citation Index and the 12th Collective Index to Chemical Abstracts.

The chemical information sessions in C500 were expanded from one to three two-hour sessions this fall.

Student budget cuts have forced a reduction in hours from 106 to 78 during the regular semesters. Consequently, all graduate students may receive keys to the Chemistry Library upon arrival at IUB.

Lin Ummel, who was the branch coordinator for five years, resigned last year and was replaced by **Esma Karic**.

Roger Beckman is serving as president-elect of the Indiana Chapter of the Special Libraries Association.

Gary Wiggins served as chair of the American Chemical Society Division of Chemical Information (CINF) during the 50th anniversary year of its founding in ACS. At the fall ACS meeting, he delivered a paper on "Using the Beilstein Database in Academic Research Libraries" and a poster session paper with visiting scholar **Diana Hernandez-Szczurek**

entitled "How the Clearinghouse for Chemical Information Instructional Materials (CCIIM) Can Help You." Gary is director of the CCIIM, which is jointly sponsored by the chemistry divisions of the ACS and the Special Libraries Association. He was a speaker on chemistry resources on the Internet at the ACS-sponsored conference "Using Computers in Pharmaceutical Chemistry." In May, Gary received the IU Libraries William Evans Jenkins Award for outstanding librarianship.

MLS-CIS News

Three students completed the master of library science-chemical information specialist (CIS) program in 1993: **Georgia Goode**, **Jenny Huang**, and **Gregory Wilhelm**. The university has given a graduate fee remission to the School of Library and Information Science (SLIS) to be used by a student in the CIS program. In recognition of past support from the Department of Chemistry, SLIS provided hourly funds to hire a graduate assistant for the Chemistry Library in spring 1993 semester. The Dow Chemical Company continued to lend support to the program with a \$1,000 donation in fall 1993.

STUDENT NEWS

(continued from page 4)

In 1992-93, we graduated 149 students (135 graduated in the 1991-92 school year). Of these students, 26 received BS degrees in chemistry, 40 received BS degrees in biochemistry, and 83 received BA degrees in chemistry. Approximately one third of our graduating seniors went to medical or dental school, a third to graduate school in chemistry or related fields, and a third to industrial positions. Thirty-three students participated in our Chemistry Honors Program and 47 students engaged in undergraduate research.

Twenty-two companies recruited at the Chemistry Placement Office this fall. These companies conducted a total of 320 interviews. The companies included

Abbott Laboratories, Berlex Biosciences, Bristol Myers-Squibb, Ciba-Geigy Corp., DowElanco, Eli Lilly & Co., Glaxo Inc., Great Lakes Chemical Co., Ligand Pharmaceuticals, Lubrizol, Marion Merrell Dow, Miles Inc., National Starch & Chemical Co., PPG Industries, Procter & Gamble Co., Radian Corp., Rhone Poulenc-Rorer, Sigma Chemical Co., Unilever, Upjohn, Wyeth Ayerst Research, and Zeneca Pharmaceuticals. Twenty of the companies recruited PhD and postdoctoral candidates; 17 recruited MS candidates; and 12 recruited BS chemistry and biochemistry candidates. A total of 37 graduate students and 21 undergraduates used the placement service.

Isabella Russ Anderson, BA'40, who retired from Argonne National Laboratory as technical librarian in 1981 wrote that she remains interested in the department and reminded us that her father had worked on the maintenance staff in the chemistry building for many years. (Your editors have many good memories of him.)

K. Balasubramaniam, PhD'65, was professor of biochemistry and head of the Department of Biochemistry, Faculty of Medicine, University of Colombo, Sri Lanka, from 1980 to 1983, at which time he moved to the University of Jaffna, Sri Lanka, and is currently serving as professor of biochemistry in the Faculty of Medicine. He is now serving his second three year term as dean, Faculty of Medicine. In 1984, he was selected Scientist of the Year by the Institute of Chemistry Sri Lanka and awarded a gold medal and certificate for his contribution to the development of science and technology in Sri Lanka.

Ram D. Bedi, PhD'60, and his family have a new enterprise, Esoc Inc. He is CEO. The feature of the company is an "Environmentally Safe Oil Change System," the basis for which is a patent granted to Bedi in 1989. The newly developed system was exhibited at the recent National Inventors Expo '93. Bedi now has 28 U.S. patents in technologies, including corrosion prevention, electrocoating, and self-locking fasteners.

George Bodner, PhD'72, member of the chemistry faculty at Purdue, is serving as an ACS local section tour speaker during 1993-94. His topics are "Eternal Verities: How Research in Learning Can Improve the Way We Teach." and "The Mismeasure of Man: How Scientists Fall into Traps of Nonobjectivity."

Talmage R. Bosin, PhD'67, professor of pharmacology and toxicology at IU, has been appointed director of the Medical Sciences Program on the Bloomington campus and assistant dean of the Indiana University School of Medicine. He had been serving as acting director for some time.

Rex H. Bradt, BA'30, and his wife, **Joanna M. Dickey**, MA'33, continue to live in Warsaw, Ind., where they are remodeling a 150-year-old house. He was listed in the first volume of *Who's Who in Science and Engineering*. She served in the department from late 1951 to 1969. During that interval, she had

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ALUMNI NEWS

(continued from page 5)

several different responsibilities, but primarily as microanalyst and then as spectroscopist.

John F. Christman, MA'46, in 1993 gave 12 lectures, largely on ACS Local Section tours in nine different states. This useful contact with so many chemists will be continued in 1994.

Donald J. Cook, PhD'44, professor emeritus of chemistry at DePauw University, is an ardent and well-informed student of the life and signal contributions of the internationally recognized chemist **Percy L. Julian**, for whom the Science Center at DePauw is named. At the 1993 annual meeting of the Indiana Academy of Science, Cook gave a most interesting review of the life and contributions of this remarkable and great African-American graduate of DePauw in 1920. In 1993, the U.S. Postal Service issued a Black Heritage Commemoration stamp in Julian's memory. Both DePauw and IU awarded honorary ScD degrees to Julian. Cook, as president of the Heritage Preservation Society of Putnam County, in October 1993, presided at the dedication ceremony in Greencastle when the Julian family home became officially listed on the Indiana Register of Historic Sites and Structures.

Alumni visitors to the department

Among the alumni who have visited us since we wrote the last newsletter copy are:

Burton Appleton, PhD'58; **Donald Cook**, PhD'44, and **Marion**; **Charles MA'48**, and **Evelyn Frohman**, BS'43; **Jack Gill**, PhD'63; **Franz Haaf**, postPhD'63-64; **Michael Horoda Jr.**, BA'50, MAT'65; **Frank Kratli**, BA'32, MA'33; **Joseph R. Leal**, PhD'53; **Gerhard Puschel**, MS'87; **Michael Rapp**, PhD'68, with his wife, Sharon, and daughter, Gretchen; **Bill Samson**, BS'43, and **Arlene**; **Allen Siedle**, PhD'73; **Nolan Sommer**, PhD'44; **Heather Webb**, BS'86; **James C. White**, BS'43, and **Mary**; **Harold**, BS'38, and **Marian Wilson**, BS'38.

—*Harry G. Day
and Elizabeth Greene*

Margaret A. Flanagan, PhD'83, for the past eight years has been with the Marion Merrell Dow Research Institute and recently was appointed program manager for restenosis in the Department of Cardiovascular Disease.

Ralph A. Froehlich, BA'74, president of Helix Environmental Inc., Dayton, Ohio, was elected to the board of directors of the Air & Waste Management Association last spring.

Benjamin Greenberg, M.D., BA'36, has had one paper accepted for publication in the Pan-American Medical Association journal and has submitted two others to American journals, and this at age 79!

Frank A. Guthrie, PhD'62, professor of chemistry at Rose-Hulman Institute, is a visiting professor of chemistry at West Point Military Academy during 1993-94. Among other responsibilities, Guthrie is a member of the Indiana Academy of Science Foundation. During 1994, he will continue to serve on the ACS Committee on Nominations and Elections.

Joel A. Hoffman, BA'83, associated with Cleveland Ear, Nose, Throat, and Facial Surgery Group, Ohio's largest Otolaryngology practice, completed his specialty training at the University Hospital of Case Western Reserve University in 1991 with a concentration in facial plastic surgery.

Tony Hugli, PhD'68, is a pioneering leader in the founding and development of "a growing, 2,800-member organization dedicated to the advancement of protein science." This is the Protein Society Inc. It was formed in California in 1986. Since 1990, the society has been publishing its journal, *Protein Science*. In the Oct. 4, 1993, issue of *The Scientist*, a full page is devoted to the new society. This includes a picture of 11 past and present officers, including Hugli.

Namku Lee, postdoc'93, returned to Korea to take a position at Sunkyung Industry.

Paul Loconto, MS'73, last year joined Michigan State University as director of the Environmental Engineering Analytical Research Laboratories. He completed his PhD in analytical chemistry from the University of Lowell in 1986.

Ted J. Logan, BA'53, has been manager of R&D technical recruiting at Procter & Gamble for a long time. In the Oct. 25, 1993, issue of C&EN, he and many other comparable representatives of major U.S. chemical firms were pictured and quoted in its survey of the "1994 Employment Outlook." It was emphasized that "There's a connection between the makeup of a company's

management and the customers its products will attract." On this, with his broad experience, Logan was paraphrased as stating that in management "diversity provides a richer, broader, more fertile environment for creative thinking—and these are the factors that lead to success in a highly competitive marketplace."

James B. Matthew, PhD'78, writes that he is assistant director, protein science, Molecular Genetics and Protein Chemistry Division for Pfizer at Groton, Conn.

Axel Harding Peterson, PhD'52, tells us that he retired from U.S. Steel in 1980, where he had developed ultrasonic instruments for steel inspection. He then went to work for Dymax with ultrasonic instruments for medical use. In 1973 he claimed two world athletic records—the Masters Mile (for those over 40) and the Long Distance Stair Climbing Record (Empire State Building), the latter with no age restriction. He says that yes, indeed, he published without perishing.

J. Michael Ramsey, PhD'79, of the Department of Energy's Oak Ridge National Laboratory, was appointed to a three-year term on the editorial advisory board of the *Analytical Chemistry* journal. He is head of the analytical chemistry division's optical spectroscopy. He served as chair of the program planning committee of the Division of Analytical Chemistry, American Chemical Society, from 1989 to 1991, and earned the Martin Marietta Energy Systems Significant Event Award in 1987 and again in 1992.

Steven F. Rodgers, D.D.S., BA'85, is an associate in the oral and maxillofacial surgery practice of David J. Howell, D.D.S., in Bloomington.

Donald G. Rose, PhD'54, although retired from his service at the Los Alamos Scientific Laboratory, is now "an expert on risk analysis and accident analysis." For him, it is part-time work, but he obviously likes it—good chemists are basically problem solvers, even in forensics.

Naoki Saito, postPhD'93, returned to his position at Meiji College of Pharmacy, Japan.

Motohide Seya, visiting scientist in '93, returned to his position at Snow Brand Milk Co. in Japan.

Dionne Stanchina, BS'92, is working toward a PhD in medicinal chemistry at Ohio State University and is involved in research on arteriosclerosis on a full scholarship at OSU.

Michaeleen Trimarchi, MS'84, has joined the Scripps Research Institute in La Jolla, Calif., as reference services li-

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TWENTY-ONE IU FACULTY ARE RELATED TO LIEBIG

If we think of the person under whom a student receives the PhD degree as his or her academic parent, it is then possible to develop a whole academic genealogy, for the preceptor's preceptor becomes the academic grandparent, and so on. Since PhD degrees in chemistry were not offered until about the beginning of the 19th century it is possible to trace most chemical ancestry back to only a few early chemists. (The earliest actual school of chemistry that awarded a doctor's degree in chemistry seems to be Upsala, which appointed a mining engineer, T. Bergman, as chair of chemistry in 1767.)

These early chemists include Bergman, Antoine F. de Fourcroy or Claude Louis Bertholet—both of whom were doctors of medicine who had chemistry students at the University of Paris, beginning in the early 1780s—and, the most famous, Justus Von Liebig, who began his laboratory at Giessen in 1824.

Although some historians trace Liebig back to Gay-Lussac, a student of Bertholet, Liebig did not take a degree at Paris. He received his degree from Erlangen in 1822, apparently approved by the administration, without credit to any preceptor. He then spent two years at Paris, in what we now call postdoctoral work with Gay-Lussac, before returning to Giessen.

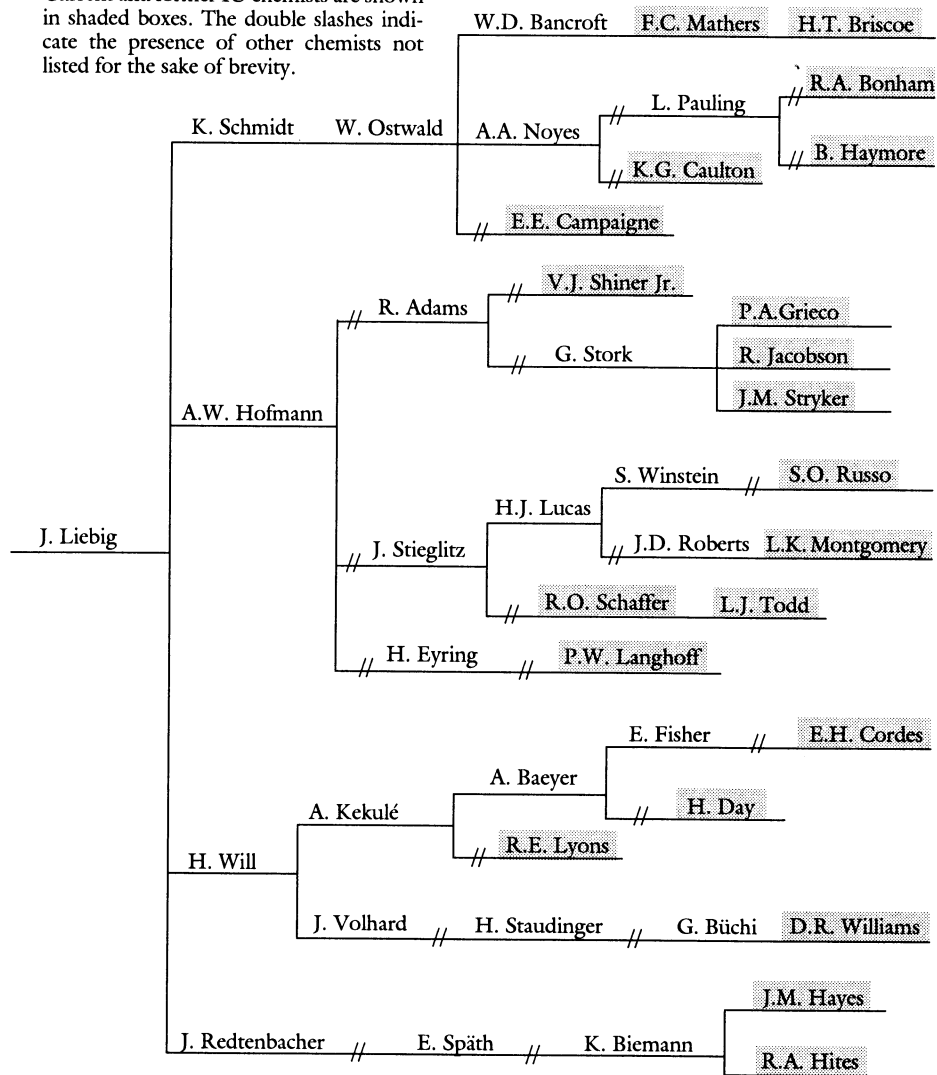
I have been able to trace 21 present and past IU chemistry faculty back to Liebig. The chart given at right is an abbreviated family tree, a modification of which appeared in *Chemical Heritage* 11:1, winter 1993-94. After this chart appeared, correspondence with Professor Klaus Biemann enabled me to add John Hayes and Ron Hites to the Liebig descendants. I will be happy to supply additional information about this chart, including the names of intermediate mentors.

I have also several other academic family trees. Fourteen present and past faculty can be traced to J.P. Cooke, who headed the Harvard chemistry department after receiving his degree in 1848. Another group of five faculty are descended from Fourcroy, and nine can be traced back to Wöhler, and then indirectly to Bergman at Upsala. If there is sufficient interest, we may publish these.

—E. Campaigne

The Liebig IU Tree

Current and former IU chemists are shown in shaded boxes. The double slashes indicate the presence of other chemists not listed for the sake of brevity.



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ALUMNI NEWS

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brarian at their Kresge Library. She also received the MLS-CIS degree in 1984.

Frank J. Welcher, PhD'32, was by far the most notable and long-term chemistry teacher at any of the IU campuses away from Bloomington. He began at the Indianapolis Extension Center in 1932 and continued through its major transformations until his retirement as professor emeritus of chemistry in 1978. For a long time, he has studied intensely and written extensively about the Civil War. Early in 1989, the IU Press published his first volume on that war. Early in 1993, it published *The Union Army, 1861-1865: Organization and Operations. Volume II, The Western Theater*.

Bernard Wolnak, PhD'43, and the consulting firm he heads, in June 1993 held their third conference directed to and focusing on the uses and economics of enzymes in industrial processes. The 15 senior level speakers presented diverse aspects of basic knowledge, commercial applications, different systems for the production of many different enzymes at low costs, enzymes in the production of pharmaceuticals, and a wide range of other needed products. Approximately 80 people attended.

Sherry J. Yennello, PhD'90, was one of 10 faculty members from various universities chosen to receive a Junior Faculty Enhancement Award from Oak Ridge Associated Universities. She continues as assistant professor, Cyclotron

Institute, Texas A&M University.

Jack P. Young, PhD'55, and his older brother, **Jay A. Young**, BS'39, were the joint authors of a letter (C&EN, Nov. 22, p. 2) that corrected a recent reference to Knute Rockne (C&EN, Oct. 25, p. 2) and a related reference that appeared 12 years earlier (C&EN, Sept. 28, p. 44). Their correction pointed out that the presumed picture of the famed football coach—and for a time, chemist—was in fact a picture of the Youngs' father, Dr. Jacob Phillip Young, who graduated from Notre Dame in 1908. The picture was indeed taken in the laboratory of the then-young J. A. Nieuwland at Notre Dame. The famed Rockne had not yet become identified with the university.

Jay A. Young, BS'39, through John Wiley, has recently published the second edition of his book *Improving Safety in the Chemistry Laboratory*. He continues to emphasize the importance of learning much descriptive chemistry as well as theoretical chemistry.

Andrew Zander, postdoc'76-77, with Professor Hieftje, was selected for the rank of captain in the U.S. Office of Naval Research. He has been affiliated as a naval reservist with the Office of Naval Research and the Naval Research Laboratory for more than 10 years as a scientific liaison officer in support of analytical chemistry programs. Zander's full-time position is director, Measurements Laboratory, E. L. Gizton Research Center, Varian Associates Inc., Palo Alto, Calif.

NECROLOGY

We have learned of the deaths of the following alumni:

Fred M. Miller, PhD'35, died Dec. 31, 1992, in Chevy Chase, Md. He specialized in organic chemistry and was first document examiner for the FBI from 1935 to 1969 and then an independent document specialist until 1975, when he retired. He served as an expert witness many times in the United States, Canada, and the Caribbean.

Harry E. Parker, MA'44, died Dec. 30, 1992, in Richland, Wash.

Elizabeth Freeman Rupp, BA'40, died April 29, 1993, in Oak Ridge, Tenn. As reported in the current INDIANA ALUMNI Magazine, she had been a consultant for the environmental sciences division of Oak Ridge National Laboratory from 1975 to 1980. Prior to that, she was a research associate in clinical hematology with the lab's medical division hospital.

Forrest L. Warner, BA'36, died June 24, 1992.

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