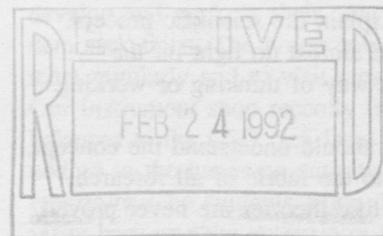


Cornell Chemistry



February 1992
Issue 53

An Essay on Teaching Science

by Professor Bruce Ganem

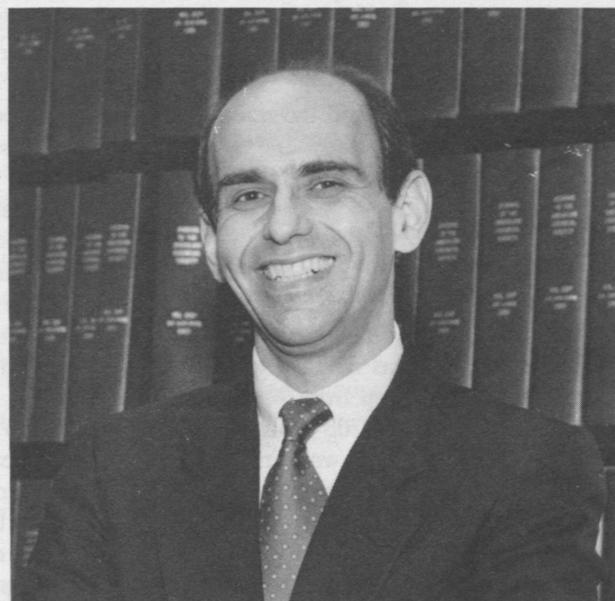
Professor Ganem joined the Cornell faculty in 1975. He has taught Chemistry 104, 251, 357, 358, 359, 360, and 498, and will teach Chemistry 203 in the Spring 1992 semester. Professor Ganem won the Clark Distinguished Teaching Award for 1985-86.

To paraphrase Ezra Cornell's now-classic words, the mission of the Chemistry Department is to provide instruction to any student in any aspect of chemistry. Each fall around 1500 students, mostly first-year, enroll in one of our general chemistry courses (i.e., Chemistry 103, 207, or 215). That count has fallen somewhat over the past 15 years; however, the number of students taking organic chemistry (i.e., Chemistry 251, 357-360) has remained steady, indicating continued interest in career choices favoring the biological sciences and health-related professions. Thus, while the health of our teaching program remains strong, these statistics belie the situation in two important respects.

First, only about 40-50 of those general chemistry students graduate as chemistry majors, and perhaps 30-40% of those students pursue graduate study in chemistry or biochemistry. In part this is due to the rigorous demands of the major, which requires that over 60 credit hours of chemistry and related subjects be crammed into an already crowded Arts & Sciences core curriculum. Many of our courses have carefully structured prerequisites, and latecomers to the major may find it a challenge to catch up. Moreover, the schedule leaves little

room for exploring and evaluating the allied physical sciences, or investigating potential interdisciplinary options. Therefore our department has taken steps to attract a greater number of scientifically minded students to the field by offering the *alternative chemistry major*. Designed around the notion that chemistry truly is "the central science,"* the alternative major encourages undergraduates to consider dual concentrations by combining a core curriculum in chemistry (often the same prerequisite courses as for other science majors) with some highly flexible electives to complement the interdisciplinary program. The alternative major has become quite popular among biology, biochemistry, and premedical students.

Alongside the specialized training of chemists and other scientists, which has a long and successful tradition at Cornell, we have a second very important teaching imperative. Liberal arts students and other nonspecialists need to gain a more general understanding and appreciation of science and technology. Recent studies at the national level document the lackluster performance of American students on science aptitude tests. Compared to other developed countries we rank at the bottom of the pack in scientific literacy. Clearly, science education in our country is in deep trouble.



Until now, this aspect of our mission has remained largely unfulfilled. The problem is how to teach nonscientists about science. More specifically, how can we inform the next generation of nonscientists about the major scientific and technological issues that will affect our personal and national welfare? This complex question has many college and university faculty deeply divided. Since science education is "vertical" and builds upon preexisting knowledge, some faculty members want to add more general science courses to the core curriculum. After all, science and engineering majors at Cal Tech and M.I.T. commit 20% of their coursework to the humanities, so why shouldn't liberal arts students devote the same time to science? Perhaps this makes sense, but it isn't quite so easy to design effective science courses for the nonspecialist. Many survey courses for nonscientists

emphasize factual memorization but do little to explain the scientific process. They shed almost no light on the scientist's way of thinking or working.

Everyone should understand the concept, woven into the fabric of all research, that scientific theories are never proved, they are instead *deduced* from impartial experimental observations. These theories may then gain wide acceptance, or be disproved, but they can never be proved. Scientists know implicitly that theories are always subject to further testing, and that many theories will wither as better ones come along. This is the essence of the scientific method, and the relentless questioning in search of better explanations is an integral part of the way science works.

During the Spring 1991 semester our department offered a course for nonscientists entitled *The World of Chemistry*, which was taught by Professor David Harpp from McGill University. Chemistry 203 aroused quite a lot of interest when it was first announced, and its enrollment of nearly 400 students was gratifyingly large. The course curriculum was broadly based and included such topics as the chemistry of food and nutrition, the development of additives and sweeteners, the history of drugs and their sources, household chemistry, the chemistry of plastics and polymers, biotechnology, the scientific publication process, and ethics in science. Slides and other visual aids were used extensively, and several in-class demonstrations by Professor Harpp were particularly well received. I attended many of the lectures during the

semester and spoke with students to find out their impressions of the course.

Not surprisingly, some of the liberal arts students I met had been discouraged by their first science course in high school. I was impressed that, despite such negative experiences, many seemed to approach the course material with an open mind. As they reach out, we must meet these students halfway, both by doing a more effective job as teachers and by recognizing that the needs of the nonscientist require innovative changes in our curriculum. Much in the format and protocol of our current courses remains the familiar drill of homework and exams, problem sets, and test questions. This approach may be fine for the promising scientists in our classrooms, but it is not very meaningful to other elements of the student population who are more interested in understanding and appreciating the major intellectual methods of science. We must be careful not to confuse one challenge — the job of inspiring and training young science students for math and science careers — with the equally important but much different job of educating nonspecialists in the scientific process. Just as a proper balance of fact and method must be reached, so must we balance the needs of those learning to *do* science with those being educated *about* science.

Another obstacle that affects the teaching of science to nonscientists is the rather tarnished image we scientists enjoy. Scientists are usually regarded as a breed apart, and people are suspicious of what we do. We are often portrayed as

absent-minded or inept, sometimes helpless in the face of our own creations. With a large, captive audience of nonscientists one may be tempted to turn courses like Chemistry 203 into a tirade in defense of science; however, this tactic can easily backfire. A better way to help improve current attitudes toward science is for each of us to explain more skillfully what we do (and why we do it). We must write more clearly in our textbooks, teach more enthusiastically in our classes, and interact more positively and effectively with one another on matters of science and public policy.

Chemistry 203 represents a promising new step in this direction for our department. Judging from end-of-term questionnaires, the course was an unqualified success, and we plan to continue offering it on a regular basis. Unfortunately, the problem will not be solved by our efforts alone at the university level. The entire educational system in the United States places too low a priority on understanding science at a time when we as a society are called upon increasingly to make informed and intelligent decisions on a variety of important technological issues. Rather than stress the barriers imposed by the vertical nature of classical science education, educators should devise an innovative and exciting curriculum starting in high school (or better yet, grade school) to help young people understand the discipline and methodology that is central to science.

* Reference to most recent National Academy of Sciences Report on Chemistry.

Cornell Science Connection

The Cornell Science Connection is an organization of Cornell undergraduate and graduate students and faculty volunteers whose goal is to foster interest in science among elementary school pupils.

The group got its start two years ago. Brad Pendley, then a graduate student in Hector Abrufia's group, asked his son's kindergarten teacher and the school

principal about the school's science curriculum. Brad was invited to attend an "in-service" session for elementary teachers sponsored by the Ithaca Science Center. He discovered that many elementary school teachers did not teach physical science because they felt uncomfortable with the subject matter. They were frustrated by their inability to answer the questions raised by their naturally curious pupils. The support

system established to help them answer those questions was cumbersome; students often lost interest in the question by the time the answer came back to the classroom.

At this same time, Brad became acquainted with Baiba Woodall, a Trumansburg elementary school teacher who had received the Presidential Award for Excellence in Science and Math

Teaching. Brad heard a similar story from Woodall — primary school teachers need support in order to teach good classroom science.

Brad, together with Mark Banaszak Holl, a member of the Wolczanski group, went to Trumansburg Elementary School and to Ithaca's Belle Sherman Elementary School to conduct demonstrations designed to captivate both children and teachers. Brad and Mark recruited several of their fellow graduate students to the effort. Asked how the students could help, the teachers had answers ready. "First of all," they said, "we need a phone number we can call when our pupils ask questions we can't answer, and we need to know that the answer will come back to us the same day or the next day. We need to know how best to teach physical science: How do we get the message across? How do we get our pupils really involved in science? What activities can we use?"

The graduate students set up a network of Cornell students and faculty who were

willing to volunteer as resources for answering questions. The group identified four primary subject areas for which they would develop activities: properties of matter, energy, forces, and states of matter. They put together simple science activity projects and took them to each school, explaining the activities and the ideas behind them. The teachers were delighted, and in late fall 1990, the students, calling themselves The Cornell Science Connection, began to go out in teams of two to classrooms in Ithaca and Trumansburg. From the outset, each team consisted of one female and one male, a conscious effort to teach something besides science.

Carol Kappel, a fourth-grade teacher at Trumansburg, comments, "It's good for children to see young adults who are really involved with math and science. I think it's so important for scientists to get involved with the community, especially at the beginning of their careers, and to share their knowledge with the children: they have so much to give."

The CSC is now helping teachers to develop and perform their own demonstrations. The group continues to meet regularly and to visit area schools. Our instrument shop recently donated six balances to the CSC (see Issue 52), adding to the hands-on activity repertoire. The students enjoy doing the visits because "the enthusiasm level is still high" in elementary school. "The kids are the best part, especially when they ask really good questions," said Kimberly Lawler, a third-year grad student in Roald Hoffmann's group.

Brad Pendley is now an assistant professor at Rhodes College in Memphis, Tennessee. Mark Banaszak Holl is a postdoctoral associate at the T.J. Watson Research Center in Yorktown Heights, New York. More students, including undergraduates, have joined the CSC. Although most will leave Cornell and the Ithaca area as they launch their careers, their contribution to science and to education will endure.

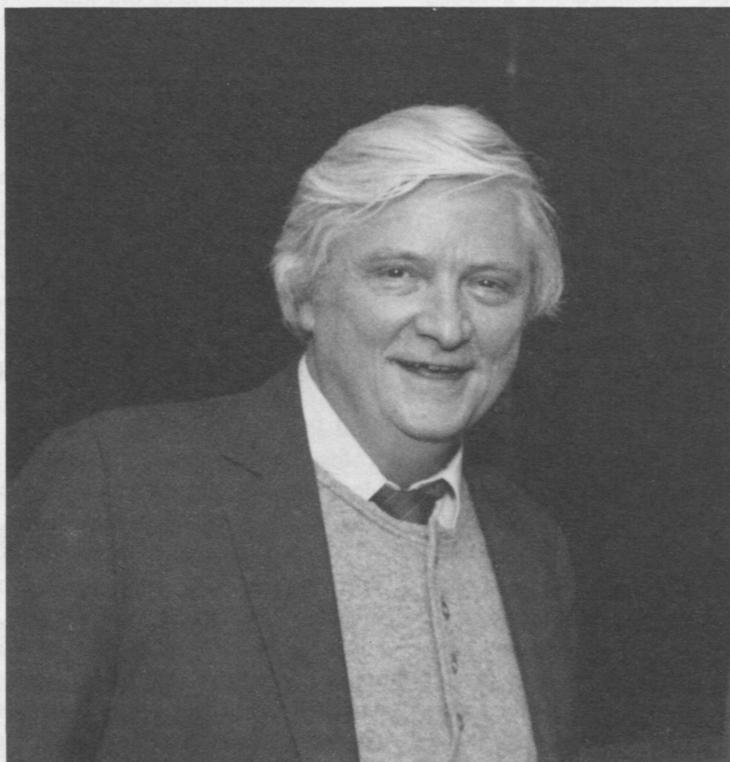
Chemistry Lecturer Wins Clark Teaching Award

Sandra McGuire, Associate Director of the Learning Skills Center at Cornell, and an LSC Senior Lecturer for Chemistry, has received the 1991 Clark Distinguished Teaching Award in the lecturer category.

McGuire received her BS in chemistry from Southern University in Baton Rouge, Louisiana, in 1970 and the MAT in chemical education from Cornell University the following year. While a graduate student at Cornell, she received the DuPont Teaching Prize. She received her PhD in chemical education from the University of Tennessee at Knoxville in 1983. Her academic career has included teaching positions at the State University of New York at Brockport, The University of Tennessee at Knoxville, and Alabama A&M University.

McGuire's most recent teaching assignment has been Chemistry 011, the support course for Chemistry 211. While reviewing concepts relevant to the 211 lectures and emphasizing study skills, she also aims to get the students to the point where they can solve the problems themselves. Students who wisely signed up for her Monday night classes gained confidence and an understanding of chemistry as well as a sense of "personhood." Her friendly manner, accessibility, and high standards were cited by her students in their nominating letters. We are proud and grateful that Dr. McGuire teaches chemistry at Cornell.





Richard F. Porter 1928-1991

All of us were deeply saddened by the death of Professor Richard F. Porter on September 1, 1991. We all miss his gentle, friendly smile and his clear insight. The following remembrance was written by his good friend, Professor W. Donald Cooke.

Dick was born on February 8, 1928 in Fargo, North Dakota. He attended Marquette University, graduating with a Bachelor of Science degree in 1951. He received his PhD from the University of California in 1954, under the direction of Professor Leo Brewer. His postdoctoral days were spent at the University of Chicago under the tutelage of Professor Mark Inghram. It was at Chicago, working with Inghram and Cupka, that Dick acquired his lifelong association with mass spectrometry. He joined the faculty at Cornell in 1955, and spent the rest of his career with us.

Recognition by his peers came early for Dick. From 1960 to 1964 he was an Alfred P. Sloan Fellow. In 1964 he was named a John Simon Guggenheim fellow by the National Research Council. In 1970 he was a NATO Senior Postdoctoral Fellow at the University of Freiburg. He was honored

with appointments as a visiting professor at the University of Florida, as a visiting scientist at Exxon Research and Development Corporation, and as a visiting collaborator at the Brookhaven National Laboratory.

While Dick was an excellent experimentalist who used the most sophisticated techniques, his primary research goal was the exploration of the basic characteristics of matter. His interests focused on mass spectrometric, electron diffraction, and spectroscopic studies of gaseous systems at high temperatures. These included thermodynamic studies of vaporization reactions, high temperature boron chemistry, the photochemistry of boron molecules, and studies of the ionization of inorganic compounds. His work spanned a broad range of science, as evidenced by the fact that his bibliography includes 144 articles in 35 different periodicals.

Dick served as a scientific catalyst for others. He co-authored papers with colleagues in the Department of Chemistry and in Cornell's College of Engineering, as well as with faculty members at other

universities, and with scientists at the laboratories he visited. In recent years he developed a new technique, referred to as "neutralized ion beam spectroscopy," for preparing and studying unstable radicals and metastable states. He was a distinguished scientist and remained an active researcher even into his final illness.

Dick was a dedicated and enthusiastic teacher and adviser to his undergraduate students. Last July, he fully intended to continue teaching, and looked forward to greeting his class in September. When that no longer appeared possible, he was deeply concerned about what would happen to his course and his students.

He was a mentor and friend to his graduate students and postdoctoral associates, who will feel the loss all the more keenly because of the close relationships he had with many of them.

Dick was a modest, kind, generous, and straightforward colleague. We will miss him.

W. Donald Cooke

Faculty News

Hector D. Abruña has edited *Electrochemical Interfaces: Modern Techniques for In-Situ Interface Characterization*, published by VCH in 1991.

The National Science Foundation recently announced that **Barbara A. Baird** has won a grant of \$50,000 for five years, under the Faculty Awards for Women Scientists and Engineers program. Professor Baird's project is entitled "Dynamic Studies on Individual Cell Surface Receptors."

Jerrold Meinwald has been selected as a Sigma Xi National Lecturer by the Sigma Xi Scientific Research Society. The Sigma Xi National Lectureships Program arranges for researchers who are at the leading edge of scientific inquiry to communicate their insights and enthusiasm to the general public and to groups not otherwise able to attract such speakers. Meinwald will participate in the program for two years, beginning in July 1992.

Meinwald and his frequent research collaborator, Cornell biology professor **Thomas Eisner**, received Silver Medal awards from the International Society of Chemical Ecology in July 1991 for their pioneering research in insect chemical ecology.

Fred W. McLafferty is the co-author, with **Doug Stauffer**, PhD '84, of *Important Peak Index of the Registry of Mass Spectral Data* published by John Wiley and Sons. The book was released in the summer of 1991.

In commemoration of its fortieth Jubilee, the Japan Society for Analytical Chemistry granted honorary membership to a limited number of distinguished foreign analytical chemists. **George H. Morrison** of Cornell University and Professor **Bert L. Vallee** of Harvard Medical School were given this honor on November 22, 1991 at Keio University, Tokyo, and received a diploma and medal

on this occasion. These awards are given only once each decade. Japanese scientists who also received honorary membership on this occasion were: Professor **Motoham Tanaka** of Nagoya University, Professor **Shigeru Ohashi** of Kyusho University, and Professor **Masakichi Nishimura** of Hokaido University. Professor Morrison presented lectures at The Japan Society for Analytical Chemistry, the University of Hiroshima, and Osaka University.

Ben Widom won the 1992 Joel Henry Hildebrand Award in the Theoretical and Experimental Chemistry of Liquids from the American Chemical Society.

Professor Widom was also honored by the University of Wisconsin by being named the Inaugural Lecturer in the Joseph O. Hirschfelder Lecture Series, established by the Theoretical Chemistry Institute in 1991. In addition, he received an honorary DSc from the University of Chicago in October 1991.

Student News

Graduate Students

Third-year graduate student **Kathryn Uhrich**, known as "Penny" to her colleagues in the Fréchet research group, has been chosen to receive the 1991 Sherwin-Williams Student Award in Applied Polymer Science. Penny presented a paper entitled "Silicon-Assisted Synthesis of High Molecular Weight Polyethers" at the ACS meeting in New York last August. She will receive the award at the next ACS Division of Polymeric Materials Science and Engineering meeting in San Francisco. Penny's research work is supported by the National Science Foundation and by a fellowship provided by The Johnson's Wax Fund.

David Rydberg, a fifth-year student in the Meinwald group, was named the 1991 Procter and Gamble Fellow. David's research has involved the synthesis of

palasonin, a plant nor-terpenoid that may play a role as a defensive agent and sex pheromone for a species of pyrochroid beetle. He is now working on a synthesis of enantiomerically pure inhalational anesthetics for use as chiral probes in studying the molecular mechanisms of anesthesia and its side effects.

Brad Pendley and **Marla Weetall** were Mobil fellows for Fall 1991. Brad completed his graduate study with Hector Abruña, and is now on the faculty at Rhodes College in Tennessee. His research at Cornell involved the preparation, characterization, and use of ultramicroelectrodes. He also carried out experimental work and computer simulations on the use of those electrodes for kinetic studies of electrode reactions. Marla is a fifth-year student with Barbara Baird. She is investigating the structure of a cell surface immuno-receptor and the molecular mechanism by which it mediates signal transduction.

Tom Petersen, a fifth-year graduate student in the research group of Barry Carpenter, is the Dow Fellow for 1991-92. Tom is working on a project involving fundamental aspects of organic reaction mechanisms and kinetics.

The 1991-92 Robert W. Work Award was awarded to **Uday Kumar**, a fifth-year student in Jean Fréchet's research group. Uday received the award for his excellent academic performance, dedication to research in the field of polymers, and his creativity in research. The award was established by Robert W. Work, PhD '32, a polymer chemist who is now an emeritus professor of textiles at North Carolina State University.

Michael Badding is the IBM Fellow for 1991-92. Michael is a fourth-year student in the DiSalvo research group. He is working on the synthesis and characterization of novel cluster materials.

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Alumni News

1930-1939

Burt Belden, PhD '31, is secretary of the Retired Chemists Association of New York. The group, sponsored mainly by the Chemists Club, meets monthly in New York.

1940-1949

Charles A. Brown, PhD '48, and **Emily B. Brown**, MS '48, write from Gates Mills, Ohio, to say, "Retirement is good, but tennis is even better." Charles retired from General Electric in 1983 as Manager of Engineering in the GE Lamp Group. They support the Cleveland Museum of Natural History's research and education programs.

Peg Conan, BChem '45, writes, "It was fun to see a name or two that I recognized from the early 40's. My Freshman Advisor was Prof. Laubengayer. His advice was, 'Pick a different major; women are not much wanted in chemistry.' I gather things have changed somewhat. It wasn't a very useful major, but I never regretted the choice."

Attending their 50th reunion last June were **Jack Weikart**, **Duke Ramsey**, **John Borst**, **Bob Herrmann**, **John Powers**, **Julian Smith**, **Norman Ryan**, **Bill Robinson**, **Herb Hinrichs**, and **Bob Finn**. **Jack Weikart** tells us he got the next to last BChem degree, and **Art Wessles** got the last one. After that, it was AB for chemistry majors or BChE for engineers.

Robert S. Weisz, AB '39, PhD '42, wrote to add to our list of Cornell alumni who recently celebrated their 50th anniversary as members of the American Chemical Society. He names himself and **George E. Tabet**, **John C. Tallman**, **Norman Parnell**, **George Bodamer**, and **Donald R. Whitlock**.

John F. Whitney, PhD '45, has retired from DuPont and lives in Hockessin, Delaware. He thinks the unidentified man in the mystery photo in Issue 50 is Henry Taube, who was an instructor under Lauby in the early 1940s.

1950-1959

R. Channing Johnson, AB '50, was lead scientist at MITRE Corporation in development of EPA's new hazard ranking system for the "Superfund." He now lives in Glendale, Arizona, training state and federal agencies in how to use the new regulations, and reviewing sites considered for the NPL.

Constance S. Kreshtool, MS '50, now lives in Wilmington, Delaware.

James R. Michael, PhD '57, has retired from Exxon Chemical Company and lives on Hilton Head Island, South Carolina.

Robert A. Stairs, PhD '55, is a professor emeritus at Trent University in Peterborough, Ontario.

We heard from **Edward S. Wheeler**, PhD '52, who lives in Clinton, Connecticut. He says **Vincent Keenan**, PhD '42, reached the 50-year mark with ACS in 1991. Wheeler also says he saw **Harry Scheifele**, MS '50, last summer. Scheifele is retired from Rohm & Haas and lives in San Diego.

1960-1969

Shyam S. Chibber, PhD '61, is Head of the Chemistry Department at the University of Delhi in India. His elder son, **Sumat**, is studying for a PhD in mechanical engineering at UCLA.

Jane Jernow, postdoc '64-'65, is manager of bulk pharmaceutical chemical registration with Hoffmann-La Roche in Nutley, New Jersey.

Alfred A. Hagedorn III, AB '69, is with Berlex Laboratories in Cedar Knolls, New Jersey. "After graduating, went to Michigan State. Then a postdoc at Columbia. Rutgers Univ. 1976-1982, then Berlex, where I worked in drug discovery, molecular modeling, and process chemistry. I'm now managing the process chemistry and analytical groups at Berlex."

David L. Hoof, AB '69, took his doctorate at Purdue in 1974, then was a postdoc at Georgetown before going to the Department of Energy in 1977. Retiring from DOE in 1989, he turned to full-time writing, producing three novels. The Spike Halleck suspense novels, *Sight Unseen* (Signet, 1990) and *Blind Man's Bluff* (Signet, in press) have been optioned by Saaban Entertainment for development as motion pictures. *The Last Prisoner* was published by Avon Books in December 1991.

1970-1979

Brent A. Burdick, PhD '74, is the director of research and development with Pharmacia P-L Biochemicals in Brookfield, Wisconsin.

Rawls Frazier, PhD '76, is a research associate with Chevron Research and Technology Company in Richmond, California.

Paul B. Goldberg, AB '71, MD '75, completed his training in Internal Medicine and Gastroenterology at the University of Pennsylvania in 1980 and is the senior partner in a three-physician gastroenterology practice in Daytona Beach, Florida. He lives in Ormond Beach. He is co-chairman of the Orlando/Daytona Campaign Committee for the Cornell Campaign.

David S. Kliger, PhD '70, was recently appointed Dean of the Natural Science Division at the University of California at Santa Cruz, where he is also a professor of chemistry.

Karen P. Madsen, AB '73, received her Master of Natural Science degree from Worcester Polytechnic Institute.

Fred Maxfield, PhD '77, is a professor in the Departments of Pathology and Physiology at the Columbia University College of Physicians and Surgeons.

Thomas P. Radus, PhD '77, is a senior scientist with Westinghouse in West Mifflin, Pennsylvania.

Charles Randall Robinson, AB '78, received his MD degree from the University of Pennsylvania, and is a board-certified ophthalmologist in Bristol, Connecticut. He is married to the former Ann Murray, and they have a son, Charlie, who is three years old.

1980-1989

Carleton J. Barbour, AB '86, received his PhD in analytical chemistry in 1991 from the University of North Carolina at Chapel Hill. He now works with Rohm & Haas.

Joseph Dinnocenzo, PhD '85, won the Arthur C. Cope Award 1992 from the American Chemical Society. Joe is on the faculty of the University of Rochester.

Charles Goss, AB '85, and his wife, Karen, AGR '85, have a daughter, Jessica Vessal Goss, born March 4, 1991. Charles received his PhD in chemistry from the University of California at Berkeley, and is now a research associate at the University of North Carolina at Chapel Hill.

John S. Hallock, PhD '86, is a research chemist with W.R. Grace and Company's Washington Research Center. He lives in Ellicott City, Maryland.

Patricia M. Kane, PhD '87, was awarded a 1991 Petroleum Research Fund Grant. Pat is on the faculty of the College of William and Mary in Williamsburg, Virginia.

William A. Levinson, MS '81, is a staff engineer with IBM Corporation, and lives in Wappingers Falls, New York.

Wendy Raymond, AB '82, received her PhD from Harvard and is a postdoctoral fellow at the University of Washington in the Department of Genetics.

Steven Sinofsky, AB '87, received a MS in Computer Science from the University of Massachusetts after leaving Cornell.

He now works for Microsoft Corporation in Redmond, Washington. Much of the administrative work of our department is now done with computers, as you might have surmised. It was therefore extremely helpful to us when Steve made a generous and practical gift of almost \$3,000 worth of software, which was matched by Microsoft Corporation. In addition to the administrative software, several professors have enjoyed using software to produce slides and overheads for lectures. Thanks, Steve!

Michael Troler, PhD '88, is now at the Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado at Boulder.

1990-1991

Mark R. Witmer, PhD '90, wrote to remind us we had omitted his name from the list of PhD recipients in Issue 52. Mark is now a postdoctoral associate at The Pennsylvania State University in University Park, Pennsylvania.

Alumni Deaths

Alma Verwiebe, BChem '22, Nov. 5, 1990.

Milton Byron, BChem '24, MChem '26, July 30, 1991.

Robert M. Lintz, BA '24, MD '27, April 23, 1991.

Elmer J. Toole, BChem '43, July 7, 1991.

Patricia Roth McIntosh, AB '57, Dec. 19, 1990.

Norman T. Notley, Postdoctoral Associate, 1952-54, July 19, 1991.

Attention Alumni — Chemistry Days, Fall 1992

Plan to attend Chemistry Days in November 1992! We're planning three days of events during which alumni can interact with faculty and current students.

Thursday, November 19 A Chemistry Careers Panel for undergraduates at 4:40 p.m. in 200 Baker Lab. PhD and AB Alumni who graduated with a chemistry major will talk with current majors about the many ways to use their special training in the "real world." Any volunteers to serve on the panel?

Friday, November 20 Spend a day in chemistry classes, have lunch with chemistry majors, tour department and university facilities. Dinner at the Statler.

Saturday, November 21 Faculty seminars 10 until noon: what would you like to hear about? Cornell plays Penn at Schoellkopf Field at 2 p.m.

Send us your ideas about what you'd like to see, hear, and do. A registration form will be included in the next Newsletter.

The Society of Cornell Chemists asks you to support the cost of printing and mailing this Newsletter with your voluntary annual dues of \$10. Please make your 1992 check payable to "Cornell Chemistry" and mail it to The Society of Cornell Chemists, G-03 Baker Laboratory, Department of Chemistry, Cornell University, Ithaca NY 14853-1301.

Student News, Cont'd

Undergraduate Students

Nataki Douglas, a member of the class of 1993, has been awarded a \$1,000 National Science Foundation Incentives for Excellence Scholarship Prize for the academic year 1991-92. She was chosen for the award because of her outstanding academic record in chemistry.

Nataki, a College Scholar, is currently working on polypeptide synthesis in the laboratory of Professor Dotsevi Sogah. She has a strong interest in chemistry and biochemistry, and plans to attend medical school when she completes her undergraduate studies at Cornell.

The NSF incentives for Excellence Scholarship Prize is part of the Minority Graduate Fellowship Program. When a graduating senior successfully applies for

an NSF Minority Graduate or Graduate Fellowship, the NSF automatically gives to the undergraduate institution \$1,000 in that person's honor, to be regranted to a sophomore or junior who is a member of an underrepresented minority group. This year's regrant award was made in honor of **Ralph Jiminez '91**, who is now a graduate student at the University of Chicago.

ACS Breakfast

Please join us for the Cornell Chemistry continental breakfast during the ACS national meeting in San Francisco on Tuesday, April 7 at 7:45 a.m., in the Westin-St. Francis Hotel. Tickets will be \$5, and can be obtained at the registration desk or from Earl Peters (607) 255-8105.

Distinguished Lecture Series, Spring 1992

Miles Inc. Lectures March 9-11, Günter Wulff, Heinrich-Heine-Universität, Düsseldorf - *Template-Induced Control of Stereochemistry for the Synthesis of Polymers with Functions Imitating Biological Processes.*

Debye Lectures April 20, 22, and 23 Paul Schimmel, Massachusetts Institute of Technology - *Decoding Genetic Information by Protein Recognition of RNA Minihelices; Protein Motifs that Discriminate Between Transfer RNAs; Deducing and Manipulating Structural Motifs in Proteins with Unsolved Structures.*

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