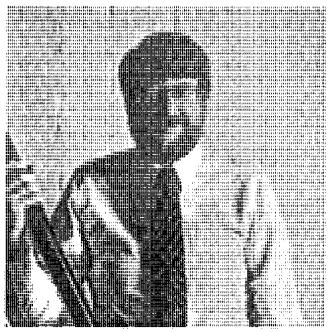
University of Washington Department of Chemistry July 1987 Volume 16

Faculty Recruiting Continues

Change is the only constant. A full 40 percent of the current faculty in the Department of Chemistry have been hired in the last six years, and the recent addition of new analytical and physical chemists paves the way for the department to expand its environmental, inorganic, organic, and polymer programs in the year to come.



James B. Callis is a happy man. With his recent promotion to professor of chemistry, Callis says he has not only the ideal job, but all the resources he needs to fulfill his scientific dreams.

It was a scenic postcard that a former girlfriend sent him from the 1962 World's Fair which prompted Callis, then an undergraduate chemistry major at UC Davis, to come to Seattle for graduate work in physical chemistry three years later.

Two postdoctoral positions followed the completion of his 1970 Ph.D. degree under Martin Gouterman's supervision. Callis's rise through the ranks of the UW chemistry department began in 1978, when he returned as a staff research chemist. Callis was made a member of the research faculty two years later, then codirector of CPAC in 1984, and last fall, appointed a full professor of chemistry.

The focus of Callis's science has shifted into analytical chemistry and its applications to biomedical processes. Callis sees himself as a problem solver and points with pride to the collaborative work he's done with faculty in surgery and electrical engineering developing a new diagnostic imaging system for burn depth diagnosis. Other collaborative work with medical school faculty may lead to noninvasive methods for measuring blood chemistry.

In the past year, Callis was made an adjunct professor of bioengineering and also accepted a position on the instrumentation advisory panel of *Analytical Chemistry*. He gave invited talks at the NIH, the University of Pennsylvania, Iowa and Arizona State universities, AMOCO, Du Pont, ARCO, Miles Laboratory, 3M, and Pacific Northwest Laboratories. He was the keynote speaker for the Conference on Process Analytical Chemistry and Integrated Systems, sponsored by the Department of Agriculture.

Callis's wife, Elzelina, whom he met on a blind date he almost didn't keep, works in the University's Burke Museum. In his spare time, Callis enjoys baroque music concerts, mountain climbing, and restoring his 1944 Indian Scout motorcycle. Callis also has dreams of retracing Marco Polo's route through the Orient someday.

After being reared and educated exclusively in the midwest, Robert E. Synovec says one of the biggest adjustments he's had to make since moving to Seattle last fall was getting used to the taped delay of Monday night football games.

Synovec grew up on a small farm in Minnesota and graduated summa cum laude from nearby Bethel College. His 1986 doctoral work on analytical techniques in liquid chromatography was supervised by Edward S. Yeung at Iowa State University. It was while working in Yeung's group that Synovec met his wife, Kristen J. Skogerboe. She is currently enrolled in the clinical chemistry postdoctoral program at University Hospital.

During his time at Iowa, Synovec was the recipient of the Pace Scholarship; Alpha Chi Sigma Graduate Research Award; fellowships from the ACS, Phillips Petroleum, and the Dow Company; and an Academic Excellence Award.

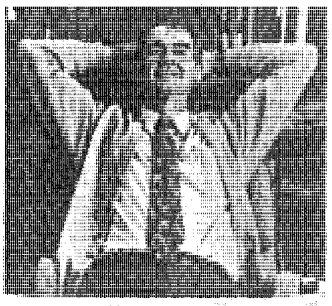
Synovec's work at the UW will focus on laser-based detectors for liquid chromatography and process stream analysis. He uses mostly spectroscopic techniques and the latest technical advances in electronics, computers, and material sciences in order to obtain optimized detection systems. The refinement of a senior-level course in separation techniques has also been Synovec's responsibility since joining the faculty.

Noting that his wife attended college on a basketball scholarship, Synovec admits to mediocrity in golf and softball. He tries to fit jogging into his schedule at least three times a week, and used to enjoy pheasant and duck hunting. Synovec doubts he'll ever be able to enjoy duck hunting again, however, after becoming friendly with the ducks that inhabit Drumheller Fountain.

For a guy who was expelled from the British Army Cadets at eighteen for insubordination—he deliberately tripped up his sergeant during a parade—Robert O. Watts hasn't done too badly for himself. The fact that he's "been insubordinate ever since" may even have helped his career.

It was the feeling that he had more on the ball than his college-educated supervisor at a British laboratory which prompted Watts, at age twenty-two, to start college. After graduating with bachelor's and doctoral degrees in only five years, he stayed on at the Australian National University.

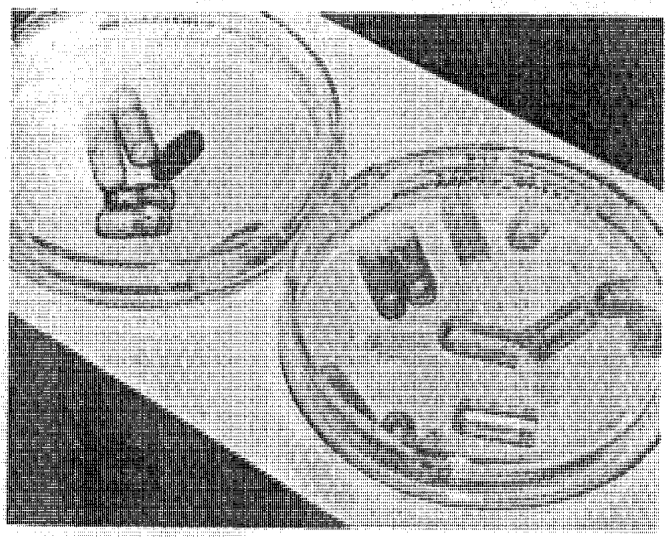
Until he was recruited to the UW as a full professor last fall, Watts had spent most of his professional career at Australia's leading research institute. There, he was a senior research fellow in the physical sciences school, as well as director for computing services for the specially funded university of eight thousand students. Watts served as the chairman of the physical chemistry division of the Royal Australian Chemical Institute until last year, was an editor for *Computer Physics Reports* for the last three years, received a Fulbright fellowship, and currently serves on the International Advisory Committee for the Symposia on Molecular Beams. He has written over one hundred publications.



In 1985, he was the P.C. Cross lecturer in physical chemistry at the UW. In addition to that speaking engagement, Watts has given invited talks in the last few years at four Gordon Conferences, Yale, Columbia, Purdue, Illinois, California at San Diego, IBM, Argonne and Livermore National Laboratories, the National Bureau of Standards, and at a host of European universities.

Watts's work deals with the theoretical and experimental properties of gaseous, solid, and liquid bulk phases and of small molecular clusters. His group uses statistical mechanics, quantum mechanics, and quantum scattering theories in computer simulations, and molecular beam techniques with infrared lasers to learn more about the strengths, shapes, and interactions of individual molecules.

Watts has been married for twenty-six years and is the father of four grown children. His wife, Diana, is an attorney. He enjoys rock climbing in his spare time.



Contaminated capsules change color in the presence of iron compounds.

Even Tamperers Get the Blues

Comedian George Carlin does a funny skit on the fact that there are no blue foods. Mars, Inc., used to make blue M&Ms but stopped after research showed people weren't eating them. Assistant professor David E. Honigs is betting that peoples' natural aversion to blue consumable products will prove advantageous for his research in chemically based, antitampering detectors.

Honigs's work became the focus of widespread national attention last fall after a press conference held in Bagley Hall publicized his finding that products laced with cyanide, and a number of other toxins, turned deep Prussian blue in the presence of iron compounds that can be applied either directly into the product (such as soft drinks, capsules, and bread) or to the packaging (such as plastic wrappers and pull tabs). For the first time, the general public would be able to determine for itself if a product had been injected with a foreign, possibly deadly, substance.

It was a cum question in graduate school that originally prompted the twenty-eight-year-old analytical chemist to consider ways in which chemistry could thwart a tamperer's efforts. Although he flunked the question, his interest in this area continued. It was at a group meeting last February that the issue resurfaced.

Honigs knew that cyanide was used to detect the presence of hemoglobin in places where blood is not supposed to be, such as in a stool. Studying the relationship inversely, he reasoned that iron could alert people to the presence of cyanide. However, he felt that the idea was so obvious that somebody else must already be working in this area of antitampering research.

It wasn't until after deaths in Seattle resulted from poisoned Anacin 3 that Honigs began pursuing his idea with discretionary money from his postage and xeroxing accounts.

In an effort to remove funding as a constraining factor in future, antitampering research, Honigs recently hosted representatives from over thirty national pharmaceutical firms, chemical companies, food manufacturers, and government agencies at a one-day conference which highlighted his progress and outlined the work which remains to make his idea commercially viable.

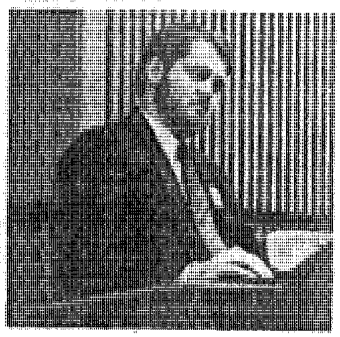
Two-year, $50,000-a-year commitments from these companies would enable Honigs to work on problems such as cross-reactivity, taste, shelf life, and humidity. Maintaining the stability of the dark-blue color in liquids remains to be solved, as well.

Despite the media coverage his idea has received, Honigs is still the only person in the country, to his knowledge, working on antitampering research from a chemical perspective. Companies are reluctant to change the basic ingredients of their products, even if it only entails adding iron—a nutritional staple—to the formula. Therefore, most antitampering research is presently directed toward the development of new glues, new plastics, new wraps, and the addition of holograms to packaging.

What is to prevent future generations of tamperers from turning to different poisons which can't be detected by iron additives? Honigs says that the limited availability of other poisons and the general public's basic lack of chemical knowledge will probably stop tamperers from shopping around. Besides, Honigs also pointed out that the more toxic a substance, the more likely a tamperer is to kill himself first.

All of this attention has diverted a portion of Honigs's efforts away from his other projects. Some members of his group are currently involved in NIR analysis from mathematical, instrumental, and spectroscopic approaches, while other graduate students are working on a project involving Fourier transform IR and Raman spectroscopy. Honigs also has interests in new spectroscopic instrumentation design, the development of new process chemical monitors, and novel separation techniques.

While it is this work that ultimately will decide if Honigs, the father of a seven-year-old son and a year-old daughter, receives tenure, it is the



antitampering research which has generated the most interesting press so far. Even the *National Enquirer* wrote about it. Honigs wonders about the quotes attributed to him in the article, however, since the magazine never contacted him for an interview.

$2M IBM Grant Received

The Department of Chemistry will directly benefit from a five-year, $2-million grant the UW has received from IBM to study advanced materials and their applications.

The search for a senior faculty position, funded by the University as a matching commitment, is expected to narrow soon as the department looks for a polymer chemist to enhance the research objectives of the grant. A simultaneous, yet independent, faculty search is also being conducted to hire a materials sciences professor to participate in this program.

Acting chemistry chair Bruce E. Eichinger serves as co-principal investigator in the program. The primary goal will be the development of new ceramic polymer composites for use in the electronic industries. Eichinger points specifically to mainframe chips as an example of the use of this materials technology.

The original industrial grant has been parlayed into a far larger investment by the University. A matching $1 million in cash has been offered by the Washington Technology Center, and the Graduate School has funded an additional graduate student fellowship and annual seminar program in keeping with the grant's research and educational objectives.

In addition to a 4381 mainframe computer, UW project investigators will be acquiring 300MHz NMR, GC, HPLC, FTIR, and UV/VIS instruments to assist in their work. Chemistry faculty who will be participating include Nancy M. Doherty, Gary Drobny, Bruce H. Robinson, and Eichinger.

IBM awarded only 12 like grants to the more than 150 universities that applied for the money. The UW is the only institution west of the Mississippi to receive funding, which also supports a half-time systems operator and a full-time research associate.

Eichinger hopes that a master's program in polymer science will eventually be offered once new faculty are hired and new courses are developed. Until that time, the University has authorized an Advanced Materials Committee, of which Eichinger is the chair, to foster the growth of interdisciplinary instruction in these areas.

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John E. Corbally

When John E. Corbally was a boy, he attended Seattle's Montlake Elementary School with about twenty-five other children in his grade. When Corbally was named president of the nation's second-largest charitable foundation in 1980—the James D. and Catherine T. MacArthur Foundation has $2.6 billion in assets—he heard from about eighty people who claimed to be old friends from grade school days.

Such is the life of a philanthropist. Corbally, who earned his UW bachelor's chemistry degree in 1947, says people relate to him differently now that he's in charge of giving away $120 million a year to worthy causes. People have a tendency to hang onto his every word, but they forget it's not really his money—it's the foundation's.

Corbally came to his current position down a somewhat circuitous path. From high school chemistry teacher in a small town to president of a major midwest university with three campuses and sixty-five thousand students, Corbally enjoyed a highly successful, thirty-two-year career in education before being named a MacArthur Foundation director in 1979.

While the South Bend, Washington, native claims always to have fun in whatever job he tackles, he admits his present responsibilities are definitely the most attractive. There are no deadlines to meet, no legislative hearings to attend, no budget requests to submit, and no alumni meetings to host. The stress of maintaining the proper presidential image during the five to six evenings a week devoted to school business is gone.

Things were not always as easy, however. After Corbally finished his Ph.D. in education at UC Berkeley in 1955, he joined the faculty at Ohio State University. He was vice president for academic affairs and provost when he left there in 1969 to become chancellor and president of Syracuse University. Two years later, he became president of the University of Illinois, which at the time had twenty thousand faculty and staff employees. Because of the campus unrest caused by opposition to the Vietnam War, Corbally says he functioned more like a warden or police officer than a university president during his years at Syracuse.

Still, he remembers many of his administrative days with pride. While at Ohio, he oversaw the total reorganization of the school's major colleges. Ten years later, a review labeled his efforts among the best things to have ever happened at OSU. He is also proud of the growth of Illinois's Chicago Circle campus during his tenure as president there.

Because the role of a university president's wife is usually much less defined, Corbally's wife, the former Marguerite Walker, surveyed five hundred presidents' spouses and wrote a book, *The Partners*, based on how these people described their jobs. For a while, a grant Mrs. Corbally secured from the Exxon Education Foundation financed a newsletter she wrote exclusively for presidential spouses. Both Corbally's son and daughter are employed by regional telephone companies.

Corbally's ties to the Northwest are still very strong and he intends eventually to retire to a home he owns on Whidbey Island. His mother lives in a north Seattle retirement home and Corbally's late father was a UW professor of education for forty-two years.

While Corbally enjoys his N gauge model train, he is spending some of his current spare time teaching himself computer programming so that he can keep up with his five- and seven-year-old granddaughters. Education remains in his blood.

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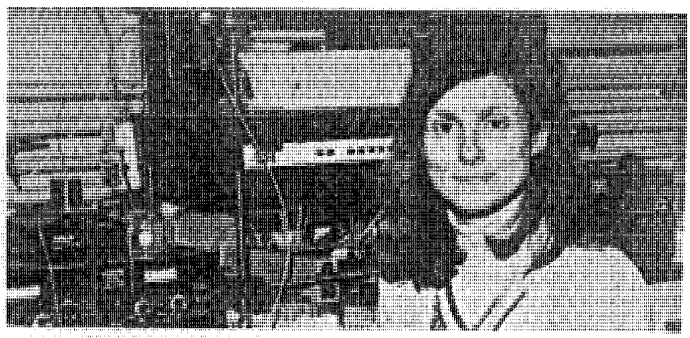


Barbara Ramsay Shaw

Mention Barbara Ramsay Shaw's name to physical chemistry faculty who were at the UW in the late 1960s and watch their faces light up.

"A wonderful person" is what Mickey Schurr, Shaw's Ph.D. supervisor, calls her. Perhaps he pays her an even higher compliment by saying she has a real knack for determining what is truly important.

It is obvious her colleagues at Duke University and granting officials at the American Cancer Society agree with Schurr's assessment. The tenured, associate professor of chemistry has just received a five-year career development award from the national health organization which will allow her to continue working on DNA structure and ionized base pairs in mutagenesis.

Shaw's group is trying to relate structure to function; and by understanding how the genetic material is packaged into a normal cell the group will gain insight into how the process goes wrong in an abnormal cell. Using sea urchin embryos, Shaw's group analyzes nucleosome structure changes during both temporal and spatial development. Another group of students in Shaw's laboratory is examining the hypothesis that protonated base pairs cause mutations in the complementary strand and may be involved in a new pathway of DNA mutagenesis.

The ACS prize is the second significant grant Shaw has received for her work. In 1976, she was named a Dreyfus Scholar, and her research was partially supported for five years on that award.

Even though Shaw's doctoral training was in physical chemistry, she has gravitated over the years to biochemistry. She enjoys the expanded freedom that molecular and developmental biology provides, saying that with physical chemistry, the methods often dictate which problems the experimentalist can study. In biochemistry, the problems choose the methods.

When Schurr says Shaw is not afraid to delve right into things, he does so admiringly and accurately. After she graduated from her native Pennsylvania's Bryn Mawr College in 1965, she decided it was time for adventure. Coming to Seattle, a city she had not even visited, was a decision which boded well both professionally and personally. During her stay at the UW, she met and married Bob Shaw, a Ph.D. student with Bob Vandenbosch. Ironically, the two grew up less than 40 miles apart in Pennsylvania.

Just as she left her mark at the UW, Shaw is making an impact at Duke. Not only has she been an elected representative to the university's Academic Council, the provost's chief advisory body, she was one of the founding members of a commission that formalized Duke's policy of hiring and tenuring women faculty. Shaw is currently the only woman at Duke in a tenure-track position in chemistry.

While Shaw doesn't normally find herself with extra time on her hands, she does teach Sunday School, plays the piano, and enjoys tennis and swimming with her husband and six-year-old daughter, Molly. Shaw credits her "wonderful family" with much of her success, as well as having had the opportunity to work with outstanding people during her career.

Schurr pays Shaw a final compliment by saying her data is always of the highest quality and her results significant. It's clear he's not referring to the time, when Shaw was about fifteen, that she almost set fire to her mother's kitchen trying electropheresis on paper. Schurr says she has gone on to perform pioneering work on several important biophysical problems using an impressive variety of chemical and biological techniques.

Niels H. Andersen (organic): Andersen's research interests in the areas of molecular pharmacology and NMR as a tool for examining the stereochemical details of biorecognition phenomena are supported by the NIH, NSF, and the pharmaceutical industry (Syntex and Squibb). During the past year, Andersen has collaborated with computer graphics groups at UCSF and the Squibb Institute for Medical Research. He has also given invited lectures at the 6th International Conference on Prostaglandins and Related Compounds in Italy, and at the 28th Experimental Nuclear Magnetic Resonance Spectroscopy Conference in California. Andersen served on the NIH study section that reviewed requests for major NMR instrumental facilities.

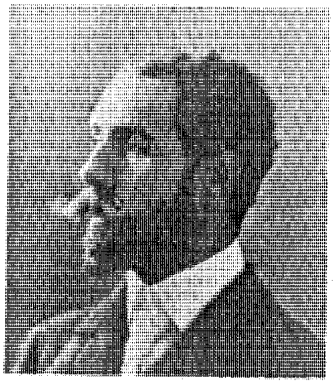
Arthur G. Anderson (organic): Associate Chairman Anderson and his wife, Sue, were injured last June in an automobile accident in Barbados while on vacation. During recovery, Anderson worked at home and finally returned full-time for the Spring Quarter.

Weston T. Borden (organic): Borden served on the NSF Minority Graduate Fellowship Selection Panel last year, as well as on the NSF Triennial Oversight Committee. During the last year, he lectured at Oregon and Oregon State universities, Washington State University, and the University of Idaho. In addition, he spoke at a symposium on the organic transition state at the National ACS meeting in Anaheim.

Robert J. Charlson (adjunct, atmospheric sciences): Last year, Charlson gave invited lectures at Stockholm University and at the American Geophysical Union meeting. He serves on the panel of Global Transport Mechanisms in the Geological Sciences of NATO until 1988, and on an international atmospheric chemistry commission, which met last year in Sweden.

Roots

Henry Collinberry Myers served as the first chairman of the Department of Chemistry from 1887 to 1898. He was hired to organize the newly independent chemistry program, which spun off from the Department of Science in 1886. According to archival documents, Myers had one assistant and there were about 35 chemistry majors at that time. Today, there are over 200 undergraduate and 140 graduate students in the department, which services nearly 5,000 students a quarter.



Gary D. Christian (analytical): *Trace Analysis—Spectroscopic Methods for Molecules* is the title of Christian's latest book, written in collaboration with JAMES B. CALLIS. Christian was appointed to the editorial advisory board of *The Analyst*, bringing his journal board membership to seven. He was appointed to another two-year term as a member of the GRE Chemistry Test Committee of Examiners, and has given invited talks in the last year in Greece, Denmark, Egypt, and Saudi Arabia. He has also been invited to lecture at a number of universities in the Western U.S.

Nancy M. Doherty (inorganic and organometallic): Doherty presented the results of her work on transition metal nitride-bridged complexes at the Denver ACS meeting. Her science, which is increasingly more directed toward problems in inorganic chemistry related to new transition metal-containing materials, is supported by the PRF and the Research Corporation. She also organized a symposium on metal ligand multiple bonds for the regional ACS meeting last month.

David F. Eggers (physical): During ANDY ANDERSON'S recovery, Eggers served as acting associate chairman. Last fall, Eggers delivered two papers at the Optical Society of America and with the recent addition of BOB WATTS to the faculty, has become engrossed with the analysis of rotational structure of infrared spectra which WATTS brought with him from Australia. Eggers hopes to aid in understanding the cluster structures of these acetylene dimers, trimers, and tetramers spectra.

Thomas Engel (physical): Seven-year-old son Alex joined Engel for a kayaking vacation late last summer off Vancouver Island. Also last summer, Engel started to build—with his own hands—a log cabin in the Cascade foothills. On the science front, Engel has given talks at Simon Fraser University, Iowa State University, the ACS Anaheim meeting, and at the International Workshop on Gas-Surface Dynamics on Campobello Island. His group has recently built a scanning tunneling microscope to look at oxide nucleation, diffracting helium beams from metal surfaces to determine their structure and studying the corrosion kinetics of silicon surfaces using molecular beams of O_2, F_2, O, and F.

Michael H. Gelb (organic and biochemistry): The UW Department of Biochemistry has recently appointed Gelb an adjunct professor. His work is supported by the NIH, Petroleum Research Fund, a Merck New Faculty Development Award, and by the UW Graduate School Research Fund. He attended the American Society of Biological Chemists meeting and two Gordon conferences last year, as well as gave a series of invited lectures in Switzerland for a course on bioorganic chemistry. Following this two-week class, Gelb was relaxing in an outdoor Parisian cafe and witnessed a terrorist bombing of a French restaurant across the street.

Martin Gouterman (physical): The ACS Symposium Series 321, *Porphyrins, Excited States and Dynamics*, recently has been published. Gouterman coauthored the work, which is a report on the symposium held in Little Rock, Arkansas, in November 1985.

Sen-Itiroh Hakomori (adjunct, biochemical): During the past year, Hakamori received an outstanding investigator grant from the National Cancer Institute for his research on glycolipids. In addition, he has become scientific director of The Biomembrane Institute, a new nonprofit research institute in Seattle that will focus on the study of the chemistry, biology, immunology, and genetics of cell surface membrane components. He also continues to serve as head of the Department of Biochemical Oncology at Fred Hutchinson Cancer Research Center.

Eric J. Heller (physical): Heller served on the Presidential Young Investigators selection committee this past year and along with MICKEY SCHURR, is one of only two chemistry faculty sitting on the Chemistry Chair Search Committee. He is writing a textbook on quantum mechanics, and during the past year, has given talks in, among other places, Mexico and Israel, and at the University of Maryland. Heller also helped organize the International Laser Science Conference, which was held in Seattle a few months ago. Heller has just received a special, two-year creativity extension of his NSF grant.

David E. Honigs (analytical): In addition to the work he is doing in chemical antitampering science, Honigs has organized NIR sessions for the Denver ACS meeting and the Eastern Analytical Symposium. He has presented lectures at the Federation of Analytical Chemists and Spectroscopists, International Conference on Diffuse Reflectance, Rocky Mountain Conference, and the national ACS meeting in Anaheim. Other groups which have hosted Honigs in the past year include Colgate Palmolive, Avery International, The Getty Art Conservatory, Pacific Scientific, and UC Riverside. Honigs's work is supported by the NSF, CPAC, and the Dairy and Food Supply Association.

Paul B. Hopkins (organic): Last spring, Hopkins was a visiting scientist in the Department of Molecular Biology at the Scripps Institute. During the past year, he has spoken at Caltech, Ohio State University, UC Irvine and Davis, Oregon State University, Procter & Gamble, and the Upjohn Company. His studies in molecular recognition are supported by the NIH. He organized, along with MIKE GELB, a bioorganic symposium for June's regional ACS meeting in Bellingham, Washington. Hopkins and BRUCE ROBINSON happily greeted recent news that the NSF will fund their DNA dynamics research. Hopkins continues to be recognized by the popular press as *Pacific Northwest Magazine* cited him in its January issue as one of the forty hottest Seattlelites under the age of forty to do something significant.

Dan G. Imre (physical): Renovation recently has been completed on the laser spectroscopy laboratory which Imre and BOB WATTS will share. Imre lectured at the Illinois Institute of Technology last month and is doing collaborative work with faculty there. He is a member of the National Open Field Coursing Association (NOFCA) and has spent his last several vacations in the Washington, Oregon, Wyoming, and California deserts hunting for jackrabbits with his four Salukis, one Borzoi, and his wife.

Kenneth A. Krohn (adjunct, radiological sciences): Krohn has moved into renovated laboratories at University Hospital this past year to begin using a new Positron Emission Tomograph and an NMR Imager for studying *in vivo* biochemistry. He is the PI on a new National Cancer Institute program project to study metabolic imaging of cancer and its response to therapy, and on a National Heart, Lung, Blood Institute grant to develop new radiopharmaceuticals. Krohn has participated in NIH Consensus Conferences on Radiolabeled Monoclonal Antibodies and on Radionuclide and NMR Measurements of Perfusion. He has given invited talks at the International Radiopharmaceutical Symposium, at the Society of Nuclear Medicine, and at an International Conference on Tumor Predictive Assays.

Edward C. Lingafelter (emeritus, physical): Although officially retired, Lingafelter has continued to do research, lecture, and write. He participated in last summer's Institute for High School Teachers and attended last year's American Crystallographic Association meeting in Ontario and this year's meeting in Texas. Lingafelter has presented papers at the last two Northwest Regional ACS meetings.

James M. Mayer (inorganic and organometallic): Research in Mayer's group has taken off in his third year at the UW with the discovery of a tungsten complex that will cleave carbon-oxygen double bonds. He recently has received NSF funding for his work and in the last year has given invited lectures at Pacific Lutheran and Washington State universities, the University of Oregon, and the DuPont Company. In addition, Mayer is coauthoring a book on metal-ligand multiple bonds.

Yeshayau Pocker (organic and biophysical): In the past year, Pocker has been elected to the Protein Society. He continues to serve on the board of reviewing editors of *Science*, as well as on the editorial advisory board of *Inorganica Chimica Acta—Bioinorganic Chemistry*. Last summer he gave invited lectures at the Third Congress of the International Society for Biomedical Research on Alcoholism and at the International Workshop on Enzymology of Carbonyl Metabolism, both in Finland. Pocker has also delivered lectures on site-directed mutagenesis at the International Workshop on Genetic Physico-Chemical Approaches for Analysis of Biological Catalysts in Italy. Last year, Pocker spoke abroad at the Universities of London, Helsinki, Florence, and Milan.

B. Seymour Rabinovitch (emeritus, physical): Rab spent three months last fall in England, where he visited several universities and presented seminars. During this past year, he has been winding up research on problems in intramolecular energy relaxation. He has inaugurated work in a new area of p chem on some aspects of silversmithing and on the chemistry of conservation and antiquarian aspects of silver. In keeping with these interests, Rab was made an overseas corresponding member of the Silver Society of London. He was also named an honorary research fellow of University College in London and was elected fellow of the Royal Society of London.

Robert Vandenbosch (physical/nuclear): Following his participation last May and June in a symposium in Beijing, China, Vandenbosch visited laboratories in Shanghai, Lanzhou, and Xian. Later in the summer, he spent two weeks in Buenos Aires as an invited lecturer. An Argentinean airline strike, however, prohibited much exploring of the rest of the country.

William H. Zoller (analytical/nuclear/environmental): Zoller was appointed adjunct professor of atmospheric sciences earlier this year. He continues to make remarkable recovery following his extremely serious car accident last January.

The Bagleys in happier times.

Ghostbusters Trailing Bagley Although Daniel Bagley died in 1905, parishoners in a Seattle church and tenants of an adjoining house which once served as the parsonage, insist he has returned. Strange sightings of diaphanous figures, strange noises, strange objects, and strange disappearances have convinced them that Bagley and his wife, Suzanne, are back. Or maybe they never left.

Bagley was Seattle's first Methodist minister and because of his efforts in establishing the University of Washington, the building which houses the Department of Chemistry is named in his honor. Coincidentally, Bagley once owned the land on which the church he reportedly haunts was built in 1906. Also coincidentally, he ministered to this same congregation when they used a site nearer the water as their place of worship.

A little over two years ago, the occupants in the neighboring house noticed that objects, such as their coats, would disappear and show up in different locations several days later. Then one night, the bluish, transparent figure of an old woman appeared before one of the tenants as he lay in his bed. After ignoring his answer to her question on how to get out of his room, she floated through the third-story window. The next morning, the other tenant of the house reported seeing an old woman, cast in a blue light, drifting down the second-floor hallway. It wasn't until the renters were browsing through a volume of photographs on historic Seattle in a bookstore one day, however, that they identified their guest as Mrs. Bagley.

Meanwhile, the reverend and deacon of a congregation which rents the adjoining church were having their own beyond-the-pale experiences with "Reverend Bags," as they call him. Doors could be heard opening and closing and toilets flushing late at night after all the people were gone and the building had been securely locked. One evening, the reverend was standing in the first-floor meeting room, appropriately called "Bagley Hall," and a piece of brass pipe about a foot long fell from "out of nowhere." After it finished spinning like a top, it rolled across the floor and stopped outside an office door. The reverend locked the pipe in his desk drawer that night for safekeeping, but it was not there in the morning. He hasn't seen it since. The two church men also claim to have seen Bagley at night. Silhouetted in a bluish light, he disappears when the overhead bulbs are flipped on.

While all those concerned with the Bagleys appear nonchalant over their return, there is at least one Seattle woman who is delighted a local newspaper has publicized this phenomenon. Years ago she was the caretaker of the adjoining house and frequently ran into Mrs. Bagley after hours. She never felt she could tell anyone about her experiences, however, as the house was then being rented as a halfway shelter for the mentally ill and she didn't want to be confused with the tenants.

Getting up close and personal with Bob Hope during the entertainer's annual Christmas show was one of the perks of being an All-American.

From Gridiron to Grignard

Mark Stewart didn't even know where Seattle was when he got on the airplane in 1978 to come up for his Husky football recruiting visit. But why not, the California native figured, go for the free trip and a few free meals?

Two NCAA All-American teams, six bowl games, NFL career, and chemistry degree later, Stewart, his wife, and two-year-old son wouldn't consider living anywhere else.

This fall, Stewart plans to take his UW chemistry degree and enter the College of Education's Secondary Teacher Certification Program. The realization of this goal has been a long time coming, however, and the road has been circuitous.

College had never loomed as a distinct possibility for the 6'2", 190-pound high school football star. No one in his family had ever gone, but then again, no one in his family had ever grown as big as Stewart and had excelled in sports—track and football—as he had.

When the Berkeley representative failed to pick him up for his prearranged recruiting trip, Stewart concentrated his attention on UCLA and Washington. After a weekend in Seattle, including a tour of Puget Sound waters on an alum's yacht, Stewart knew he was going to be a Husky.

He didn't know he was going to redshirt his first year, however. Although disappointed, he used the time to beef up to 230 pounds and to become proficient—at least in his mind—with Washington's defensive playbook.

There was no looking back by the time he was a sophomore. Stewart started for the next three years as an outside linebacker, became team co-captain, was named an NCAA Pre-Season All-American, an NCAA All-American, to the Playboy All-America team, and to the 1982 All-American Strength and Conditioning Team. He ran 40 yards in 4.6 seconds and was bench pressing 430 pounds. He was touted as the best linebacker Washington had ever produced and was assured of going in the first round of the NFL draft that spring.

When he wasn't selected by the Minnesota Vikings until the fifth round, Stewart was depressed but not totally surprised. For one thing, he knew he lacked the killer instinct professional coaches value in defense players. Secondly, he knew he was a better player against the run than against the pass, and professional sports emphasize pass offense. But perhaps most importantly, Stewart had already been accepted into the highly competitive physical therapy program at the University, and had been forced to divide his time between academics and athletics.

As Stewart puts it, he succumbed to the allure of big money and the show business nature of big-time sports. Dropping out of the physical therapy program, Stewart went off to Mankato, where a severely sprained Achilles tendon kept him on injured reserve for a year. Midway through his second season, he was cut by the Vikings new head coach Les Steckel. After playing football for 15 of his 23 years, somebody told him he wasn't good enough anymore.

Stewart had never intended for football to become more than a serious hobby, and short stints in the USFL and CFL resulted in a strained shoulder and blown-out ankle. Even though he felt he had one more trial in him, Stewart and his wife returned to the Pacific Northwest to get on with their lives.

His career goals slightly altered, Stewart has been combining his chemistry curriculum for the last two years—during which time he has maintained an A-minus average—with football coaching responsibilities at Mercer Island High School. Stewart looks forward to the day when he'll be in charge of his own classroom and hopes that those same students who currently see him as an athletic role model will eventually come to see him as an academic role model, as well.

▼

Benson Family Supports Undergraduates

Even though Henry Kreitzer Benson's name is more immediately connected with chemical engineering, the family of the former chairman of the combined Departments of Chemistry and Chemical Engineering has recently established a tuition scholarship for undergraduate chemistry majors.

Benson was educated as both a minister and a botanist and he even worked as a public high school principal before returning to Columbia University to finish his doctoral work in chemistry. He came to the UW to build the chemical engineering program and served as the department's third chairman from 1919 until after the end of the Second World War. The building that houses the Department of Chemical Engineering is named in his honor. Money originally donated by his widow, Eva, created scholarships for engineering students. Benson's son, W. Ronald, recently authorized a reallocation of these funds and fashioned a similar scholarship for chemistry majors.

Mark Stewart, a senior intending to earn a secondary teaching certificate in chemistry and biology, is the first recipient of this money.

The twenty-seven-year-old chemistry major works part-time in the Husky athletic department and part-time at Mercer Island High School to finance his education. Stewart's wife, Maria, works evenings as a grocery store checker, and intends to pursue doctoral work in counseling once Stewart has completed his education. They have a two-year-old son.

Alumni George Hutton (B.S. 40) and Mary Simeon (B.S. 33, M.S. 35) join [illegible] center, from the Arts and Sciences Dean's Office, in honoring George Hitchings (B.S. 27, M.S. 28) at a luncheon last summer at the Faculty Club, for his pioneering work in the fields of nucleic acid metabolism, and the body's immune system, and the subsequent development of immunosuppressive drugs that first made kidney [illegible] successful between nonidentical twins in the early 1960s. Hitchings was named a 1990 Alumnus Summa Laude Dignatus.

Departmental Donors Detailed

Recent contributions to the Department of Chemistry have increased dramatically since the formation last year of a development committee chaired by assistant professor Paul B. Hopkins.

Hopkins's group has already overseen two successful direct-mail solicitation campaigns and planning has begun for a phone solicitation effort to be held later this summer.

Profits from the fund-raising appeals have allowed the department to partially pay for the expenses of nearly twenty exceptional graduate student applicants who visited Seattle this past spring to meet the faculty and tour the research laboratories. Contributions have also paid for the expenses incurred when undergraduates attend the Puget Sound Section ACS Student Affiliates meetings.

Hopkins noted that the four weekly seminar programs have been revitalized as a direct result of alumni generosity. In the past year, the number of seminars has jumped nearly 30 percent and the department has brought in such noted speakers as Cornell's Gregory Ezra, Ohio State's Daryle Busch and Heinz Floss, William P. Reinhardt from the University of Pennsylvania, Yale University's Jerome A. Berson, Walter Klemperer from the University of Illinois, and Pittsburgh's Jules Rebek. Seminar speakers from the West Coast include Michael Blades from the University of British Columbia and James Ingel from Oregon State University.

The annual meeting of the Rocky Mountain Chemistry Chairs was hosted by the UW for the first time last October. Nearly fifty heads of chemistry departments from universities and colleges in the Pacific and Southwestern states, excluding California, gathered for the conference, which was partially financed through donations from alumni and friends.

In an effort to publicly thank those people who have remembered the chemistry department since April 1986, the following list has been prepared. Apologies are made for any unintentional omissions, and Hopkins requests that any errors be brought to his attention.

Under $249

Adams, Cameon S.
Adams, Gerald S.
American Chemical Society (Puget Sound Section)
Andersen, Niels H.
Anderson, Arthur G.
Antipas, Y. Artemis
Barker, John R.
Beck, Ted
Bednekoff, Alexander G.
Beilby, Alvin L.
Berkelhammer, Gerald
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Borman, Cornelius H.
Bouknight, Joseph W.
Bowden, Deborah
Breazeale, Almut F.
Breazeale, Robert D.
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Christian, Gary D.
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Crooks, Shelly M.
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Davis, Raymond A.
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Stenkamp, Ronald E.
Stewart, Mary Jane
Stewart, Robert D.
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Vanden Bosche, Edmond R.
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Varornum, Joel V.
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Webster, Frances R.
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Williamson, Lorna J.
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Young, Stanley D.
Youngman, Edward A.

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Saegebarth, Klaus A.
SmithKline Beckman Corp.
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The Dow Chemical Co. Foundation
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A In addition to serving as an assistant professor at King Saud University, HASSAN MOHAMMED AL-SWAIDAN (Ph.D. 83) is an adviser for the Saudi Arabian armed forces. . . . ABDULRAHMAN ATTIYAT (Ph.D. 79) has come back to the UW for a year as a Fulbright scholar. When he returns home this summer, he will resume his position as dean of students at Yarm University in Irbid, Jordan. There, he has also served as the chairman of the chemistry department and as director of admissions. . . . NATALIE AHN (B.S. 79) is working as a postdoc, supported by an NIH fellowship, in the UW's Department of Medicine. She received her 1985 biochemistry doctorate from UC Berkeley. . . . ROBERT ALDAPE (B.S. 86) is working at the Genetics Institute in Arlington, MA. . . . At the same time she earned her B.S. in chemistry, CAMEON ADAMS (82) received an undergraduate degree in chemical engineering. She has been working at the Puget Sound Naval Shipyard for four years as a nuclear engineer. Recently, she has been doing nondestructive testing and analysis of metal alloy piping and tubing in heat exchanges at nuclear power plants. . . . ALI AFRASSIABI (B.A. 93) currently attends the UW medical school. He earned a master's degree in bioengineering in 1986. . . . CHRIS ARROYO (B.S. 83) has graduated from the UW medical school and will be starting his urology residency soon in Seattle. . . .

B MICHAEL BROWN (B.S. 76) earned his medical degree in 1983. . . . PATRICE BLAKEWAY earned bachelor's degrees in chemistry and chemical engineering in 1980. She has been working for the Atlantic Richfield Company since graduation. . . . The College of Staten Island/CUNY is where RICHARD BROTZMAN (Ph.D. 82) has been since 1985 as an assistant professor of chemistry. Prior to that, he worked for Owens Corning Fiberglas and IBM. . . . S. B. BISWAS (Ph.D. 81) has been an assistant professor in the University of Maryland's medical school since 1984. He worked for three years prior to that as an ACS postdoctoral fellow at Stanford University. . . . MARK BURNS (B.S. 74) became a full-time pediatric urologist at Children's Hospital and Medical Center in Seattle last summer. His 1979 medical degree is from the UW, where he is now also an assistant professor of urology and surgery. . . . ALVIN BEILBY (Ph.D. 58) is spending a sabbatical year at the University of Uppsala in Sweden, involved in research on carbon electrodes for electroanalytical methods. He returns next fall to his position as professor of chemistry at Pomona College in California. . . . CHARLES BISHOP (Ph.D. 69) is the vice president of technology for the A. O. Smith Corporation in Milwaukee, WI. His company manufactures automotive structural parts, water heaters, electric motors, water system tanks, reinforced plastic pipes, and electronic funds transfer equipment. He writes, somewhat wistfully, that he still owns two season tickets to the Seattle Seahawks. . . . After a career that spanned more than 40 years, GENE BAXTER (B.S. 44) retired in 1985. For much of that time, he worked in industrial polymer research for adhesive products at the Martin Marietta, Weyerhaeuser, and Georgia Pacific companies. He holds numerous patents in the field of thermosetting polymers and has been nominated for inclusion in Personalities of America and International Book of Honor. Currently, BAXTER works as a consultant. . . . LINDA BROOKS (B.A. 83) picked up a 1985 M.S. from the Institute of Paper Chemistry. She now works as a senior process engineer for James River. . . . A Medical Scientist Training Program scholarship from the NIH supports CHRIS BEAULIEU (B.S. 82) as he works toward his M.D./Ph.D. at the UW. . . . BRIAN BOWE (B.S. 76) was a Peace Corps physics and math teacher for four years in Fiji. He then went to medical school at USC and will soon be moving to Louisville, KY, to do his residency in ophthamology. . . . Since earning his 1982 Ph.D. in chemistry from USC, ARTHUR BERRIER (B.S. 76) has been working at Martin Marietta Laboratories. . . . ANTHONY BOHORFOUSH (B.A. 77) earned his 1981 medical degree at Creighton University. He currently is doing a gastroenterology fellowship at the University of Wisconsin in Madison. . . . FRANK BOSHEARS (B.A. 79) earned his master's degree in chemistry from Washington State University in 1986. . . . KEVIN BULLEY (B.S. 80) is now doing an anesthesiology residency at Seattle's Virginia Mason Hospital. He finished his UW medical degree in 1984. . . . MARK BRUSICH (B.S. 81) is finishing his chemistry Ph.D. at Caltech. . . . MELODY BROWN (B.S. 81) worked for a while in industry and is now at home caring for her three young boys. . . . GARTH BUTTERFIELD (B.S. 84) works for Pfizer Pharmaceutical in Groton, CT. . . . RICHARD BOGAR (B.S. 93) works as a chemist at the Northwest and Alaska Fisheries Service. . . .

C KARRI CHINN (B.A. 84) is attending the UW school of medicine. . . . FRANK COMS (B.S. 83) is performing research directed toward a Ph.D. in physical organic chemistry at Caltech. . . . DAVID CLARK (B.S. 82) finished his inorganic chemistry Ph.D. in 1986 at Indiana University and has recently begun postdoctoral research at the University of Oxford in England. . . . MELANIE CHUN (B.S. 81) will soon be finishing her degree in education from the University of Nebraska in Omaha. Prior to this, she worked at Cornell University Medical Center and attended graduate school at the University of Nebraska's Medical Center Eppley Cancer Institute. . . . EDWARD CELARIER (B.S. 81) finished his chemistry doctoral work at the University of Toronto in 1986. He is now a postdoctoral fellow at Princeton University. . . . After earning his UW medical degree this June, ROY COLVEN (B.S. 83) is staying in Seattle to do his primary medicine residency. . . . KEVIN CRONIN (B.S. 81) has recently finished writing his doctoral dissertation in chemistry. He attended graduate school at UC Berkeley. . . . CARON COMSTOCK (B.A. 84) works as a quality control chemist for Jarvie Paint Company. . . .

D CYNTHIA DARANCIANG (B.S. 76) earned a teaching certificate in 1980. She currently is at home raising her family. . . . Since this program in 1975. . . . DONALD DERLACKI (B.A. 78) is the medical director of two clinics, one a walk-in center for minor emergencies and the other for naturopathic medicine, in Anchorage. He also teaches anatomy and physiology part-time at the University of Alaska. Before receiving his 1984 medical degree, DERLACKI earned an M.S. in biochemistry from Northwestern University. . . . ROARK DOUBT (B.A. 72) earned a degree in chemical engineering in 1977 and has been working in that field since. . . . DIANE DEL BECCARO (B.S. 85) worked for a year at the National Marine Fisheries Service and is now in the chemistry Ph.D. program at Caltech. . . . SUSAN DAHL (B.A. 84) is currently employed as a chemist at the National Marine Fisheries Service. Prior to that, she worked as a technical writer. . . . RUSSELL DILLS (B.S. 77) finished his Ph.D. in toxicology last year at the University of Kansas. Currently, he is a postdoctoral researcher in the UW Department of Pharmaceutics. . . . GRANT DONA (B.S. 81) completed his UW medical training in 1985. . . . Lackland AFB, TX, is where GREG DAVIS (B.S. 81) is currently doing his psychiatry residency. He graduated from the UW medical school in 1985.

E JEANE EGAN (B.A. 85) has been commissioned as an officer in the U.S. Navy Supply Corps. . . . For the last eight years, SAM EMERY (B.S. 79) has been working at Northwest Chemical Milling in Renton, WA. . . . RALPH ERICKSON (B.S. 81) is now a physician in the U.S. Army Medical Corps. He received his medical training at the Uniformed Services University of the Health Sciences. . . .

F JAMES FALLAVOLLITA (B.S. 83) moves to to New York City this summer to start his primary medicine training after graduating last month from the UW medical school. . . . SHARON FARMER (B.A. 76) finished her UW medical degree in 1980. . . . Since completing the work for his 1979 doctorate, ED FEY has been employed by IBM in Endicott, New York. His jobs have included R & D work in analytical, inorganic, and electrochemistry. . . . After doing research for a year at the Veterans Administration Medical Center in infectious disease, JOHN FANKHAUSER (B.S. 84) began medical school at the UW. . . . After working as an analytical chemist for a short while, CHRISTOPHER FINLEY (B.S. 83) entered medical school. He is in his third year at the Oregon Health Sciences University. . . . ALAN FENSTERMAKER (B.S. 76) is currently an advanced composites research manager at American Cyanamid in Maryland. He earned advanced degrees in chemistry at SUNY Buffalo and in business at the University of Puget Sound. . . . After he finishes his fellowship at Harvard University this summer, DANIEL FLUGSTAD (B.S. 76) will begin a private practice in orthopedic surgery at Seattle's Mason Clinic. . . . TED FLANAGAN (Ph.D. 55) teaches at the University of Vermont and was named the University Scholar in Physical Sciences last year. . . .

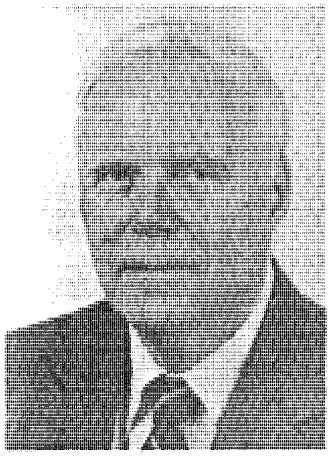
G LARRY GULBERG (Ph.D. 80) taught high school chemistry in a Seattle suburb until 1986 and has recently been working in instrumentation sales for Fisher Scientific Company. . . . After LINDA GUSTAVSON finished her 1986 Ph.D., she worked as a graduating with his 1984 Ph.D., PAUL DEPREE has been a senior research chemist at Dow Chemical's agricultural chemicals and pharmaceutical research division in Pittsburg, CA. . . . KLARESE DORPAT (B.S. 48) is the physician-coordinator for the emergency medical technician training program for San Juan County, WA. She earned her medical degree in 1952 and helped start

Symposium Honors Crystallographer

When Lyle Jensen's distinguished thirty-nine-year career drew to a formal close last year, crystallographers from around the world gathered for a three-day symposium to honor the UW professor emeritus of biochemistry and biological structure.

Many of the twenty-six speakers, who came from as far away as Australia, England, France, and Norway, had studied under or collaborated with Jensen. Highlighting the conference was a presentation by Nobel Laureate Dorothy Hodgkin, who spoke about her diffraction experiments to determine the structure of water in insulin.

Jensen earned his 1943 chemistry doctorate with Edward C. Lingafelter. During his tenure at the UW, he served as chief administrative officer of the Department of Anatomy (now Biological Structure), an associate dean in the Graduate School, and as an adjunct professor of chemistry. In addition to the "Precision and Molecular Structures" symposium, Jensen was feted at a separate reception and banquet.



Alumnus Advances at Du Pont

John T. Lund has been named vice chairman and executive director of the Du Pont Company's Committee on Educational Aid.

The 1954 Ph.D. chemistry alumnus oversees a program that provides support to science, engineering, and business departments in over 360 colleges and universities. Du Pont plans to award over $11 million in grants to improve academic training in these areas this year alone.

Lund's entire professional career has been spent in chemical research on textile fibers at Du Pont, which he joined after finishing his doctoral work under Paul C. Cross on "The IR Spectrum of Gaseous Free Radicals." Lund first met Cross at his undergraduate alma mater, Brown University, and followed him to the UW when the noted physical chemist assumed a faculty position in Seattle.

More recently, Lund earned a 1985 master's degree in computer science from the University of Delaware. He has been married for thirty-three years and has two sons. One is a computer scientist in Delaware and the other is on the civil engineering faculty at UC Davis.

postdoc in the UW Department of Medicinal Chemistry. She is now employed at NeoRx in Seattle. . . . KATHRYN GILLILAND (B.S. 86) is in medical school at St. Louis University. . . . ROCHELLE GARCIA (B.S. 84) worked in industry for a year before beginning medical school. . . .

H After completing postdocs at Texas A&M and Emory University, CHU-NGI HO (Ph.D. 80) has been working as an assistant professor at East Tennessee State University since 1983. . . . KI-JUN HWANG (Ph.D. 81) has been employed as a project manager since last summer at the Korean Research Institute of Chemical Technology. . . . STEPHEN HADLEY has been working at NeoRx Corporation since receiving his Ph.D. last summer. . . . RON HAASETH (Ph.D. 82) has been an instructor at Bellevue Community College. Prior to that, he was an assistant professor at the University of Minnesota. . . . The UW medical school is where VICTOR HIRTH (B.S. 85) is currently a second-year student. . . . BRIAN HILL (B.S. 85) is a graduate student at the University of Arizona. He was awarded a DuPont/Marvel fellowship during his first year of chemistry graduate work. . . . THOMAS HAFF (B.A. 76) is finishing up his master's degree in education this quarter. He has been working as a high school science teacher and in the construction industry. . . . For the last two years, RICK HARRISON (B.A. 76) has been a member of the UCLA School of Medicine faculty. He earned his medical degree from the UW in 1980. . . . GEORGE HASHISAKI (B.A. 77) completed his UW medical training in 1981. . . . JEANNE HSU (B.S. 79) finished a UC Berkeley M.B.A. in 1984. She is currently customer support manager at Rolm, a subsidiary of IBM. . . . Calling herself an entrepreneur, ROSE ANN HILL (B.A. 84) has been working in the computer industry since before her graduation. . . . SONJA HANSEN (B.S. 82) has had a series of industrial jobs since graduation. She has also had a baby. . . .

I THOMAS IKEDA (B.A. 79) has been working as a corporate analyst for three years. He has an additional B.S. degree in chemical engineering and earned a UW M.B.A. in 1983. . . . LARRY IVERSON (B.S. 79) works in the semiconductor industry in California. He is also enrolled in the master's degree program in electrical engineering at Santa Clara University. . . . HEP INGHAM (B.S. 81) went on to earn a master's degree in chemical engineering from Arizona State University in 1986.

K . . . ERIC KNUDSON (M.S. 73, Ph.D. 76) is a research associate at the Stroh Brewery in Detroit, MI. He has worked there for 10 years. . . . RAYMOND KUSUMI (B.S. 81) is working as a criminologist for the Washington State Crime Laboratory in Seattle. . . . STEPHEN KING (B.A. 86) is working towards the completion of an additional degree in electrical engineering at the UW. . . . DAVID KEIRE (B.S. 85) is working towards his chemistry doctorate at UC Riverside. . . . PATRICK KING (B.S. 82) has joined the Air Force. He has earned additional degrees in biology and electrical engineering and is currently working on a master's degree in systems management. . . . Since leaving the UW with a B.S. in 1983, JOHN KRISTOFZSKI has been in chemistry graduate school at the University of Arizona. . . .

L WILLEM LEENSTRA (Ph.D. 79) was promoted to associate professor of chemistry in 1986 at the University of Vermont. . . . STEVEN LOVEJOY (Ph.D. 84) has been working as a postdoctoral fellow for SRI International in Menlo Park, CA, for the last nine months. . . . MIN DUAN LIU (B.S. 86) is pursuing doctoral work at Purdue University's chemistry department. . . . STEPHEN LEE (B.A. 84) works for the Hercules Aerospace Company. He received a master's in engineering in 1985 from the University of Utah. . . . DOUG LARSEN (B.S. 83) is working at Hercules in Salt Lake City while concurrently pursuing a master's degree in chemical engineering at the University of Utah. . . . RODNEY LUCAS (B.S. 82) also has an undergraduate degree in chemical engineering. He worked for three years at the Exxon Company and is presently employed at the Naval Ordnance Station in Indian Head, MD. . . . Physical bioorganic chemistry is ROBERT LEE'S (B.S. 83) field as he pursues a graduate degree at UC Santa Barbara. . . . GARY LEMOINE (B.A. 78) is finishing law school at the University of Puget Sound. In 1981, he earned a UW master's degree in industrial hygiene safety. . . . CHRIS LEWIS (B.A. 80) has been in private dentistry practice since 1984. . . . After finishing his UW medical degree in 1984, RICK LINDQUIST (B.A. 80) entered a family practice residency. . . . HEATHER LAWTON (B.S. 80) is now a certified industrial hygienist, as well as the mother of three young children. She now lives in Illinois. . . . TIMOTHY LOVELL (B.S. 81) finished his UCLA medical degree in 1985. . . . ALAN LANE (B.S. 77) received his Ph.D. in chemical engineering from the University of Massachusetts in 1984. He is on the faculty at the University of Alabama. . . . MARK LANDREVILLE (B.S. 83) earned his secondary teaching certificate in 1986 and is teaching high school chemistry and math. . . . JOHN LEE (B.S. 85) was commissioned as a naval officer and has spent the last two years in the nuclear power and submarine training program. . . . When last heard from, STEVE LEOVY (B.S. 86) was working as an instructor/patrol/track maintenance person at a cross country ski area in Taos, NM. . . .

M For the last five years, TERRANCE MURPHY (Ph.D. 82) has been an assistant professor of chemistry at Ithaca College in New York. . . . Ten years after receiving his 1974 B.S. in chemistry, LANCE MATHESON earned his M.B.A. Currently, he is in a UW doctoral program in business administration, majoring in operations management and industrial engineering. . . . DOUGLAS MACDUFF (B.A. 65) is in private anesthesiology practice at Spokane, WA's, Sacred Heart Medical Center. He earned his 1969 medical degree from the UW. . . . Director of chemistry at Redmond, WA's, Technology Dynamics is DAVID McCRAE's current job title. He worked as a postdoc at the UW for three years and in 1981 he was promoted to research associate faculty. He left the UW in 1986. . . . MICHAEL MARONEY (Ph.D. 81) has joined the faculty as an assistant professor of inorganic chemistry at the University of Massachusetts. . . . PATRICK McGRATH (B.S. 86) is working at Ecology and Environment in Seattle. . . . CINDY MITCH (B.S. 85) is attending medical school at McGill University in Montreal, Quebec. . . . BILL MULLIGAN (B.S. 83) finished a master's degree in chemical engineering from the University of Michigan in 1985. He has been working at Fairchild Semiconductor in Puyallup, WA, since then. . . . CRAIG MITCHELL (B.S. 83) has been working as a math and science teacher at Winlock High School for the last two years. . . . REBECCA MURPHY (B.S. 83) is a sales engineer for Air Products and Chemicals in California. . . . JANIS MORTENSEN (B.S. 83) taught high school science courses in Central America after graduating. She has had her commercial pilot's license for a year. . . . TOM MATROS (B.S. 82) has been working as a chemist for over three years. He received an M.B.A. from California's National University in 1985. . . . RICHARD MEIXNER (B.S. 76) earned a master's degree in soil science from UC Davis in 1979. He then worked for three years in Costa Rica with the Peace Corps. He is now in graduate school at Colorado State University. . . . DAVID MURPHY (B.A. 79) is currently a graduate student in electrical engineering at the Georgia Institute of Technology. He has worked since graduation as a chemical oceanography technician. . . . MARTIN MIKELSONS (B.S. 61) finished his analytical chemistry Ph.D. from Purdue University last year and has taken a position at the Upjohn Company in Michigan. . . . KIM MELLOR (B.S. 81) is now a second-year resident in family practice in Ventura, CA. He earned his UW medical degree in 1985. . . . LESLIE MOORE (B.S. 83) works as a chemist at the Northwest and Alaska Fisheries Services and plans to begin graduate school next fall. . . .

N RICHARD NORMAN (B.S. 80, M.S. 83, Ph.D. 85) has spent the last two years at Birkbeck College, University of London in a postdoctoral position . . . . PETER NALOS (B.S. 76) finished his UW medical degree in 1981. He is currently finishing his cardiology fellowship. . . . SCOTT NEILSON (B.S. 79) finished his University of British Columbia medical degree in 1983. . . . JACK NETTLETON (B.S. 79) finished his UW medical degree in 1983 and he now has a private practice in internal medicine. . . . JAY NELSON (B.S. 81) completed a master's degree in zoology at the University of Wisconsin in 1984. . . . PAMELA NALLI (B.S. 81) is a computer operator. . . . JUDITH NADLER (B.A. 77) was last employed as a quality control chemist at the Boeing Company. . . . MIKE NELSON (B.S. 71) is the chief chemist at Seattle's Lauck's Testing Laboratories. . . . DOUGLAS NITTA (B.A. 76) is a board certified fellow in family practice in Fullerton, CA. He is also on the staff at St. Jude's Hospital doing primary care and rehabilitative medicine. NITTA earned his UW medical degree in 1980. . . .

O After serving as a sabbatical replacement for a year at Pacific Lutheran University in Tacoma, WA, JOSEPH OSBORNE (M.S. 79, Ph.D. 83) is presently working at the Boeing Company. After receiving his degree, OSBORNE did postdoctoral work at UC San Diego. . . . JOHN O'LOUGHLIN (B.S. 86) is working at Ecology and Environment. He was a co-winner of the 1986 Merck Index Award. . . . After earning his UW dental degree in 1986, ROBERT OSBORNE has opened a private practice in

Since graduating in 1976 with his B.A., DONALD WILLIAMSON has worked in the construction industry and as a high school teacher. . . . MARK WALKER (B.A. 77) has had a private dental practice since 1981, when he graduated from the UW dental school. . . . ROBERT WEBER (B.S. 78) has recently begun a job with the New Hampshire Health Department. He has worked in this field for six years in Seattle/King County. . . . DANIEL WINDER (B.S. 82) has finished the UW medical school and begins his internal medicine residency soon in Pittsburgh. . . . REBECCA WONG (B.S. 79) finished a master's degree at the Institute of Paper Chemistry and she has been working for the last five years in a paper mill as an environmental engineer. . . . LOREN WILLIAMS (B.S. 81) finished his Ph.D. in chemistry at Duke University in 1985. He is currently working as a postdoctoral researcher in the Department of Pharmacology at Harvard University. . . . DON WOTHE (B.S. 83) is currently supported by a Medical Scientist Training Program grant from the NIH as he pursues his M.D./Ph.D. degrees from the UW. He is doing his research in the Department of Biochemistry. Y HORNG CHIN (Gene) YEH (Ph.D. 80) has been working in the plastic packaging research laboratories of Crown Zellerbach Corporation. . . . Research Engineer is LYMAN YOUNG'S (B.S. 81) title at Chevron Research Company in Richmond, CA. . . . Z MARGARETHE ZONNEVYLLE (B.S. 86) is working in infectious disease at Children's Hospital in Seattle. Her sister, MARJANNE ZONNEVYLLE (B.S. 83) is working on her doctorate in chemistry at Cornell University.

Chairman's Message

Well, here I am, back in the chairman's office—this time for a period of six months. Alvin Kwiram returned from his sabbatical last July and resumed his duties as chairman; however, it was not long before he accepted a position as vice provost. I'll be here until the end of the academic year, by which time we hope our search for a new chair will have been successful.

This has been an active year for the department. In addition to the chair search, we are currently looking for a senior organic appointment, a junior inorganic professor, and a polymer/materials science person. All the while this is going on, the department is undergoing its ten-year review by the Graduate School.

A string of bad luck has left some of our faculty either in the hospital or otherwise laid up for a while. Andy Anderson and his wife Sue were rather seriously injured while vacationing in the West Indies last summer. Andy is still recovering from a compound fracture of his right leg and has returned to teaching just this past Spring Quarter. Sue injured her wrist and ankle and is, likewise, recovering.

The morning after a light snowfall in early January left the highways slick for Bill Zoller and a visitor from Los Alamos. On their way to the airport, a multiple-car collision left Bill with very serious injuries. He spent several weeks in the hospital recovering from a ruptured diaphragm, collapsed lungs, broken ribs, a broken pelvis, and other injuries. He, too, is on the road to recovery and we hope to have him back teaching before too long.

This past winter, Bob Vandenbosch broke his ankle while downhill skiing at Crystal Mountain. He was on crutches for about two months.

Fund-raising efforts we initiated last year have been gratifying and I want to personally thank you for your contributions to the department. Please know that your donations are used judiciously in the advancement of chemistry students, faculty, and programs at the UW. I want to extend a personal note of thanks to Paul Hopkins and Nancy Cooper for their unstinting efforts to enhance our fund-raising abilities. Nancy, especially, has done a tremendous service to the department in maintaining contacts with you, our alumni. She is also the one who has written, produced, and edited these highly pleasing CHEMLETTERs that you have been receiving for the past several years.

I am happy to report that I have a sabbatical coming up next year. The administrative challenges of the last two years have left me with a nagging desire for some scientific refreshment.

While I look forward to that time, we in the department can also look back on the past year as one of some remarkable acccomplishments. We have yet to make a handful of key appointments, but once that is done, we take the next step in establishing the UW's Department of Chemistry as one of the most productive and creative departments in the country. We do so, in large measure, with your support and encouragement.

Sincerely,

B E Eichinger

Bruce E. Eichinger
Acting Chairman

Kwiram Becomes Vice-Provost, Fellowship Honors Former Chair

When Alvin Kwiram stepped down after a decade as chairman of the UW Department of Chemistry to become vice provost earlier this year, he had high hopes that he could avoid being interviewed for the alumni newsletter. After being told an interview was inevitable, he reluctantly put it on his calendar, and then characteristically proceeded to jot down a long list of his successes and failures as chairman, and some of the initiatives which have probably fallen somewhere in between.

Kwiram feels honored that during his tenure as chairman, a number of outstanding scientists—those just beginning their careers and established investigators alike—chose to come to the UW as members of an already excellent chemistry faculty. Nearly one-half of the present faculty are Kwiram appointments. He is especially proud that women in tenure track, adjunct, and affiliate positions were added to the faculty during his two terms as chairman. Together, the old guard and the new recruits created an atmosphere of intellectual excitement that is palpable. The result has been a significant change in faculty morale and an improved self-image for the department.

To create a better environment for students and faculty, Kwiram has, in addition, actively pursued the renovation of Bagley Hall, has successfully negotiated greatly expanded space allocations for the chemistry department, and has vigorously encouraged and supported the acquisition of major new instrumentation facilities. It is rumored that he has on five separate occasions parlayed the same $100,000 into matching state and federal grants for instrumentation.

Ten years ago, chemistry was characterized by some wag as a drag on the system. Today, the UW chemistry program is viewed as one of the most creative in the country. Other departments on the UW campus and nationally have solicited chemistry's advice in a number of areas.

For the last ten years, Kwiram was also the secretary-treasurer of the ACS's Division of Physical Chemistry and played an active role in the rejuvenation of that organization. Walla Walla College, where he earned undergraduate degrees in physics and chemistry, named Kwiram their 1984 Alumnus of the Year. In 1985, he was named a fellow of the American Association for the Advancement of Science.

As chairman of the Council for Chemical Research, he moved that organization into the national political arena when he testified in 1982 on instrumentation obsolescence in American universities before a House subcommittee on Science and Technology. Based on his various contributions to the development and evolution of CCR, he was selected as the 1986 recipient of the CCR Award for the Promotion of University-Industry Relations. After donating the award proceeds to the UW, the funds were generously supplemented by the institution and his colleagues and friends, and an endowed graduate student fellowship was established in the Department of Chemistry. More recently, Kwiram was asked to head a group of regional liaison leaders established by the National Research Council to communicate the concerns of the chemical sciences and engineering community to congressional delegations nationwide.

Kwiram's fifty years are marked by a series of unexpected turns. The son of immigrant parents, he grew up on a modest Canadian farm on the prairies. Kwiram never dreamed he'd someday earn a Ph.D. degree in chemistry from Caltech. He came to the UW in 1970 from Harvard where he had served for six years as a member of the "junior" faculty. In 1976, he served on the chairman search committee with no inkling of what was to come. The committee eventually turned their eyes on him. The decision to have children was also something Kwiram had not anticipated earlier in his life. Today, he and Verla, his wife of 22 years, have a 15-year-old son, Brandt, and a 12-year-old daughter, Sidney.

For the time being, he is content as vice provost to help the UW regain its budget momentum at the legislative level. He would like to help formulate policies which will hold the UW on a good course as the twenty-first century approaches. Revving up his research program is another goal.

Regardless of the endeavor, Kwiram becomes involved because he feels he can make a difference and be of service to others. Perhaps it is because Kwiram has faced life without a shopping list of expectations that he is a content man today. He feels he has avoided a great many frustrations that way, and by not looking for his rewards in life deliberately, has definitely found them.