



# CHEMISTRY DISTILLATIONS

THE NEWSLETTER OF THE DEPARTMENT OF CHEMISTRY  
COLLEGE OF WILLIAM AND MARY

WINTER 1995-'96  
WWW at <http://pooh.chem.wm.edu/>

This is the third Chemistry Department Newsletter to appear in recent years. It is intended to bring you up to date on our current state and to review changes which have occurred since the last newsletter in late 1994. We wish to list our graduates, both bachelors and masters students, and describe some of their accomplishments. New faculty will also be introduced. We also wish to announce the new Alfred Armstrong Fund and to explain why this looks likely to play an increasingly important part in our future endeavors.

As mentioned in last year's newsletter—and this is intended especially for the “real old timers”—the department is located in Rogers Hall, on the new part of campus, diagonally across Barksdale playing field from Phi Beta Kappa Hall. By all means stop by for a visit should you be in the area. Most of the faculty you may remember from the 70's (or even earlier!) are still here, as well as a good many additions.

We consider this newsletter an important part of our effort to maintain a high quality academic program and to promote a sense of continuity over the years and decades. We will be happy to hear from you; please send any comments to Editor, Chemistry Distillations, at the address on the back, or via e-mail at [gcdefo@chem1.chem.wm.edu](mailto:gcdefo@chem1.chem.wm.edu).

## Remarks by the Chair

I am pleased to continue “Remarks by the Chair,” following Steve Knudson's precedent in the first two editions of *Chemistry Distillations*. This past July, Steve stepped down from the department chair, after three years of assiduity in that role. He is now very happily devoting his efforts to teaching and research, undiluted by the frequent meetings and paperwork required of the Chair. The Department is very grateful for his service. We are also grateful to Gary DeFotis for editing this newsletter, after having performed the same task for the first newsletter.

Since the last newsletter, our enrollments have grown, we have added new faculty, seen the departure of others, and added more research labs. In the Fall of 1994 we introduced a fifth section each to the Phys-Chem and Instrumental Analysis Labs (meeting at 6–10 p.m.) to accommodate the 80–90 requests for



these classes. Enrollments in our General Chemistry and Intro Organic courses are also growing, partly because this year's freshman class had an acceptance rate that exceeded expectations by 10%.

Kathleen Morgan and Barbara Siles joined us this fall in tenure-track positions to teach organic and analytical chemistry, respectively. Both have jumped enthusiastically into the workings of the department. Barbara does her research in the laboratory that Dave Thompson left when he moved to Tercentenary Hall (see below), and Kathleen is moving into a beautiful, new research laboratory obtained by renovating a classroom (Rogers 109). Eric Dawnkaski joined us in the Fall of 1994 for a three-year appointment. He has been a mainstay in the P-Chem Lab, teaches the first semester of Cultural Chem, and with Knudson is our computer guru. This past August Eric and our Debbie Bebout were married. We also have Melissa Ravenscroft with us as a Visiting Assistant Professor teaching P-Chem and I.A. Labs and a section of General Chem II. This year we welcomed back Trevor Hill (who took early retirement in 1992), after he and his wife sailed leisurely to Florida last year. He is teaching organic in replacement of Chris Abelt, who has a one-year sabbatical. This fall we also had valuable part-time help from Patricia McDaniel, Anne Mooring, and Billy Stump (recently retired from the Virginia Commonwealth University's Chemistry Department) in the introductory General and Organic Labs. We are currently searching for a tenure-track organiker to start next fall as a replacement for Gary Hollis. Since the last newsletter a new secretary, Shirley Elder, and a new laboratory specialist, Derhong Shih, have also joined the department.

This fall, Alfred Armstrong did not teach chemistry at William and Mary after 63 years of almost continuous service. Alfred still comes by the department occasionally for his afternoon coffee. His meticulous attention to detail and strong emphasis on fundamental principles leaves an unfillable gap in our program. In honor of his incomparable service, the Department proposes to establish an Alfred Armstrong Fund and solicits contributions from alumni.

Those of you who “surf the Web” may be interested in knowing that Chemistry has a page on the World

Wide Web at <http://pooh.chem.wm.edu/>. We are thinking about ways to make it more useful to Chem alums, e.g., generating a directory of e-mail addresses of alums and making the WWW page interactive. We'd welcome your thoughts, which can be addressed to [alum@chem1.chem.wm.edu](mailto:alum@chem1.chem.wm.edu).

This past Homecoming, Tercentenary Hall was dedicated. Located on the south side of the Sunken Garden between Washington Hall and Crim Dell, this new building houses the Computer Science, Geology, and Applied Science Departments. Chemistry shares the top floor with Applied Science. Kiefer, Kranbuehl, Thompson, and I have moved our research labs over there. Thompson and I have offices there too. This and the new lab for Morgan have helped reduce the severity of our space problems, but they have not eliminated it. When Rogers Hall was completed twenty years ago, William and Mary had 4000 undergraduates compared to 5400 today; and we were graduating 20 chemistry majors per year compared to 59 in 1995 and 65-70 in 1996.

I have saved some of the most exciting news for last. In mid-December, Governor Allen presented a budget to the State Legislature that includes support for renovation and expansion of Rogers Hall. Although that budget will undergo changes as it moves through the legislative process in Richmond, we are hopeful that the decision makers will continue to recognize our pressing need for more space and updated facilities. The possible renovation/expansion is described in an article later in this newsletter.

We enjoy hearing from former students. Drop us a line and let us know what you're doing. Best Wishes for the New Year!

*Bob Orwoll*

## Current Faculty

- Chris Abelt**, organic  
[cjabel@chem1.chem.wm.edu](mailto:cjabel@chem1.chem.wm.edu)
- Debbie Bebout**, biochemistry  
[dcbebo@chem1.chem.wm.edu](mailto:dcbebo@chem1.chem.wm.edu)
- Randy Coleman**, biochemistry  
Dir., Freshman/Sophomore Advising  
[racole@chem1.chem.wm.edu](mailto:racole@chem1.chem.wm.edu)
- Eric Dawnkaski**, physical  
[ejdawn@chem1.chem.wm.edu](mailto:ejdawn@chem1.chem.wm.edu)
- Gary DeFotis**, physical  
Garrett-Robb-Guy Professor  
[gdefo@chem1.chem.wm.edu](mailto:gdefo@chem1.chem.wm.edu)
- Dick Kiefer**, polymer/radiochemistry  
[rlkief@chem1.chem.wm.edu](mailto:rlkief@chem1.chem.wm.edu)
- Steve Knudson**, physical  
[skknud@chem1.chem.wm.edu](mailto:skknud@chem1.chem.wm.edu)

**Dave Kranbuehl**, physical  
[dekran@chem1.chem.wm.edu](mailto:dekran@chem1.chem.wm.edu)

**Kathleen Morgan**, organic  
[kmmorg@chem1.chem.wm.edu](mailto:kmmorg@chem1.chem.wm.edu)

**Bob Orwoll**, physical  
[raorwo@chem1.chem.wm.edu](mailto:raorwo@chem1.chem.wm.edu)

**Bob Pike**, inorganic  
[rdpike@chem1.chem.wm.edu](mailto:rdpike@chem1.chem.wm.edu)

**Ted Putnam**, departmental administrator  
[tdputn@chem1.chem.wm.edu](mailto:tdputn@chem1.chem.wm.edu)

**Gary Rice**, analytical  
[gwrice@chem1.chem.wm.edu](mailto:gwrice@chem1.chem.wm.edu)

**Barbara Siles**, analytical  
[basile@chem1.chem.wm.edu](mailto:basile@chem1.chem.wm.edu)

**Bill Starnes**, polymer  
Gottwald Professor  
[whstar@chem1.chem.wm.edu](mailto:whstar@chem1.chem.wm.edu)

**Dave Thompson**, inorganic  
Chancellor Professor  
[dwthompson@larc.nasa.gov](mailto:dwthompson@larc.nasa.gov)

## Emeriti

Alfred Armstrong, 1976; Ed Katz, 1979;  
Trevor Hill, 1992 (adjunct) [tbhill@chem1.chem.wm.edu](mailto:tbhill@chem1.chem.wm.edu);  
Cirila Djordjevic, 1992

# Departmental Doings

## Faculty Changes

### On leave for 1995-1996:

**Chris Abelt** (Research Leave)

### Visiting faculty for 1995-1996:

**Patricia McDaniel**, polymer (Fall 1995)  
(Ph.D., William and Mary, 1994)

**Anne Mooring**, organic (Fall 1995)  
(M.S., UCLA, 1985)

**Melissa Ravenscroft**, analytical  
(Ph.D., West Virginia U., 1994)  
[mrave@chem1.chem.wm.edu](mailto:mrave@chem1.chem.wm.edu)

**Billy Stump**, physical (Fall 1995)  
(Ph.D., U. Tenn., 1959)

## Welcome!

**Eric Dawnkaski** [B.S., Canisius College (1988), Ph.D., Pennsylvania State University (1995)] joins the department. His research is in theoretical physical chemistry.

**Kathleen Morgan** [A.B., Dartmouth College (1988), Ph.D., Yale University (1994)] joins the department following a postdoctoral experience at Indiana University. Her research is in physical organic chemistry.

**Barbara Siles** [B.S., Thomas More College (1989), Ph.D., University of Cincinnati (1993)] joins the department following a postdoctoral experience at The National Institutes of Standards and Technology. Her research is in analytical chemistry and applications in biochemistry.

## Bon Voyage!

**Gary Hollis** leaves the department after a number of years to assume an appointment on the faculty of Roanoke College. A much loved instructor, Gary's ebullient personality will be missed by all.

**Jerry Hoffman** leaves the department after a year as Visiting Assistant Professor. He has now joined the faculty of Pomona College.

**René Kanters** leaves the department after two years as a Visiting Assistant Professor. He returns to the University of Richmond, where he had worked previously and where a special position utilizing his talents with computers and educational technology became available (and where his wife is located on the faculty).

**Jim Kirby** leaves the department after a year as Visiting Assistant Professor. He has now joined the faculty of Northwestern State University of Louisiana.

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## Curriculum

The department is moving along toward instituting new certified degree opportunities endorsed by the American Chemical Society in 1992. We have in place now an approved baccalaureate track in polymer chemistry. In addition the department has made application to the ACS for the institution of new tracks in biochemistry and chemical physics. These are currently under review.

The department's masters degree program was put on probationary three-year review by the College—not too bad an initial result, since a number of masters programs were eliminated. In times of budget difficulties an emphasis on higher profile programs, whether at the undergraduate or graduate levels, is apparent, and all masters programs become open to challenge. We are attempting to persuade the administration that the many virtues of the chemistry masters program should recommend it for continuation. A recent report by an outside evaluator, Professor Slayton Evans of UNC, Chapel Hill, was quite favorable on the whole, though certain ideas for improvement were suggested. Final word on the outcome of the present review process should appear in the next newsletter.

## Enrollment in the Department

The previous newsletter provided detailed statistics documenting the growth of enrollment in the chemistry department in the last decade, our ranking nationally in this area, and related information. We won't repeat all of that this year (maybe in the next newsletter!) for the state of affairs is much the same. It can be summarized briefly: extraordinarily high enrollments in all chemistry courses.

The department recently reviewed its enrollment in comparison with those of chemistry departments in other leading undergraduate institutions and in comparison with national figures. For example, no other Arts and Sciences department at William and Mary has such a high number of majors as chemistry, viewed as a fraction of the total number of A&S undergraduates *and* in comparison with national averages. Thus, bachelors degree recipients in biology at William and Mary have accounted for about 13% of the undergraduate degrees awarded in recent years, while the national average for biology is slightly over 11%. But bachelors degree recipients in chemistry at William and Mary in the same period have constituted about 5.5% of the undergraduate degrees, with the national average for chemistry at 2.3%. Only geology rivals chemistry at William and Mary in terms of producing bachelors degrees far above its expected proportion relative to national averages.

And, if one compares with other prominent undergraduate institutions, some striking contrasts emerge. With 59 chemistry graduates in 1995 the department is far ahead of schools like Amherst (20), Bucknell (30), Franklin and Marshall (26), Grinnell (17), Williams (30), etc. Even more impressive perhaps, the ratio of chemistry graduates to faculty for the same schools is W&M (3.9), Amherst (2.2), Bucknell (2.5), Franklin and Marshall (2.4), Grinnell (2.1), Williams (2.3), etc. This means, of course, that faculty here are teaching higher loads, and that they are highly efficient at serving the students who major in chemistry. We don't want to take credit for the quality of our students, but we do take justifiable pride in the success they have in pursuing subsequent careers beginning with graduate school, or medical school, or in private employment. As has been the case for some time, our graduating class is composed of about 50% men and 50% women, which means that we are attracting women to chemistry at a rate significantly above the national average. We are proud of this contribution to the nation's pool of scientific talent.

There are, however, severe challenges associated with the remarkable numbers just discussed. While the recent opening of Tercentenary Hall and the transfer of four faculty research laboratories to that building, has

freed up space in Rogers, we are far from being awash in space. The new hires that we have finally been able to make (thanks to the released space in Rogers), combined with one more position we hope to fill, will once again saturate our research laboratory space. It will continue to require exceptional efforts to serve all our majors, especially in the matter of research opportunities. Such offerings require money as well as space, because a major part of our undergraduate research effort—as so many of you know—is the summer research program. This costs money, primarily for student stipends and for reasonable increases in the size of the stipend with time, but also for research equipment and for other expenses associated with such research.

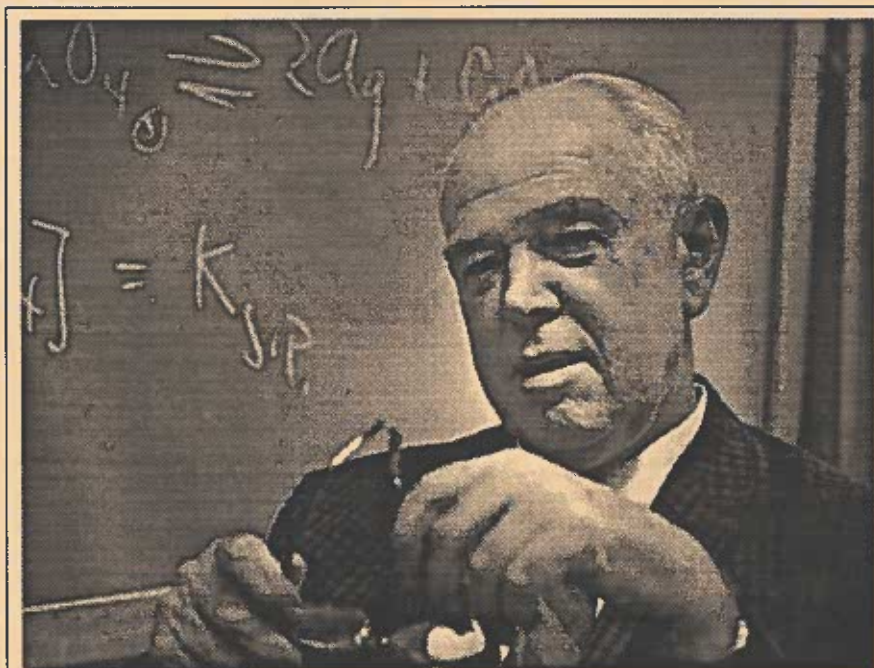
Although our faculty are quite successful in obtaining external support for their work, it is very difficult to raise enough money this way to support all the students who wish to participate in the summer program, to continually increase the stipend from year to year, and to meet all the other costs of research. This is especially so in an era of declining state support for higher education: from 1990 to 1995 the state contribution to the College's annual budget fell from 35% to 23%. This is why we are soliciting your support in helping to create the Alfred Armstrong Fund in the Chemistry Department. An insert explaining this fund is enclosed. Many alums in many departments invest in the future of their departments. We encourage you to consider supporting your department *alma mater*, for the remarkable success manifested here in undergraduate education in chemistry is undeniable.

## Old Rogers Recollections

We initiate here an occasional and more or less anecdotal column devoted to recollections of the intermediate to distant past. The first effort in this series is by Drs. Armstrong and Hill, and may be called "Old Rogers Recollections". It is appropriately devoted to a remembrance of Dr. William George Guy, singularly one of the professors most remembered by our graduates from the 20's through the 60's!

## Chancellor Professor William George Guy: A True Gentleman and Scholar

Dr. Guy was born in Carbonear, Newfoundland in 1899 and earned two degrees (B.Sc. 1919; B.A. 1920) from Mount Allison University in New Brunswick (Canada). He was selected as a Rhodes Scholar which resulted in his studying at Oxford in the years 1920-1923, earning a highly coveted A.B. degree. He obtained his Ph.D. degree from the University of Chicago in 1925, at which time he joined the William and Mary faculty. He was elected to Sigma Xi while at Chicago and was soon elected to Omicron Delta Kappa and Phi Beta Kappa in his early years at William and Mary. He was promoted to Professor after five years and appointed Chancellor Professor of Chemistry in 1945: he served as Head of the Department from 1946 to 1968. He was selected for the Thomas Jefferson Faculty Award in 1964 and was a recipient of the Algernon Sydney Sullivan Award. He was also selected for the Distinguished Service Award by the Virginia Section of the American Chemical Society (1958), where he served as Chairman in 1951-52. He was President of the Virginia Academy of Science (1957-58) and served on the Board of Trustees at the Williamsburg Community Hospital. He taught first year chemistry from 1926 through 1965 and physical chemistry for almost as long.



William George Guy, 1899–1969

There is a lot missing from the previous paragraph. Dr. Guy's office door was always open to students and faculty alike. He smoked a pipe and oftentimes was seen from the hall, sitting at his desk and scraping the thing out. He was seldom absent from his desk or classroom or teaching laboratory, except perhaps during the World Series or a round on the tennis courts and grading time at final exams. He viewed

the telephone as an abomination and he saw no reason why you should not communicate with him either in person or in writing; either way, but always *in English*. How often in conversation we may say "this guy did that, so that guy did this". In the presence of Dr. Guy, the word "guy" brought out strong and loud admonition to mind your words, but always with a smile. His lectures were revered and presented in impeccable fashion and always with the right mix of assertiveness, humility and humor. The thought of naming our new chemistry building "Guy Hall" did not meet with the approval of Dr. Guy; he thought it more important that the name Rogers not be lost from, or downgraded at, William and Mary. However, the Guy Lecture Hall (Rogers 100) was dedicated on April 24, 1981.

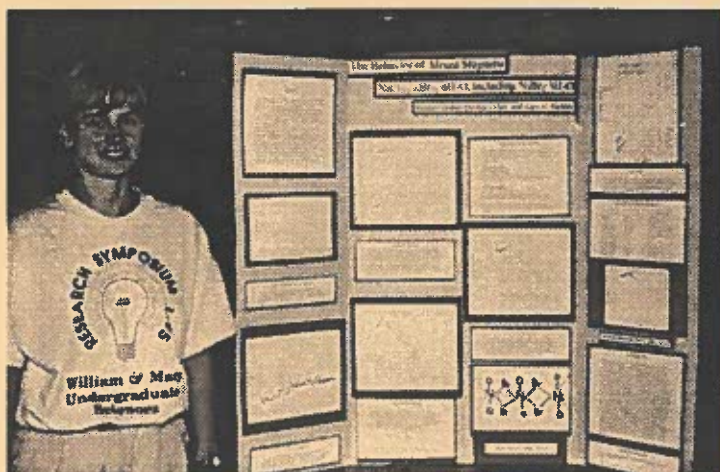
Dr. Guy married Gladys Elizabeth Bennett of Williamsburg in 1926. Gladys Guy still lives in Williamsburg in the retirement community Williamsburg Landing. Dr. and Mrs. Guy entertained in their home on many occasions over the years, leaving fond remembrances of convivial evenings. Through their generosity the Guy estate was instrumental in establishing the Garrett-Robb-Guy Chair in Chemistry; the Guy prize for an outstanding chemistry senior was established by one of our premedical students, Dr. Albert Cornell, now deceased.

Scores of alumni returning on visits to the campus remember and ask about Dr. Guy: a remarkable and well-loved man.

## National Organic Symposium

More than 1,100 chemists gathered on June 12-15, 1995, in William and Mary Hall for the 34th National Organic Symposium. Attended by scientists from industry as well as colleges and universities, the event was the largest academic conference ever held at the College. It is the premier event for the international organic chemistry community. Chris Abelt, associate professor of chemistry, was the local organizer, and William and Mary was the first primarily undergraduate institution to host the gathering.

The content of the symposium focused on the latest methods for synthesizing organic compounds such as drugs and structural materials. Representing about a third of participants, chemists from the pharmaceutical industry were on hand to discuss disease-fighting and therapeutic drugs including compounds designed to attack HIV and cancer.



Joanna Goodey shows her poster.

## Undergraduate Research

Many of you reading this newsletter will recall participating in an important curricular opportunity as William and Mary students. Undergraduate research activities still thrive in the department. Guided by a member of the faculty, a student begins his or her investigations in the junior year. This year about 48 qualified students elected to undertake an independent study or Honors project. Papers on student research are presented at professional meetings and frequently published in leading scientific journals. During each summer about 35 undergraduates work alongside faculty and graduate students on projects supported by the National Science Foundation, the Jeffress Memorial Trust, the Petroleum Research Fund, the Howard Hughes Medical Institute, the Merck Foundation, NASA, the Dow Corporation and DuPont. We are grateful for the external support which allows us to continue this significant enhancement in our curriculum.

## Undergraduate Research Symposium

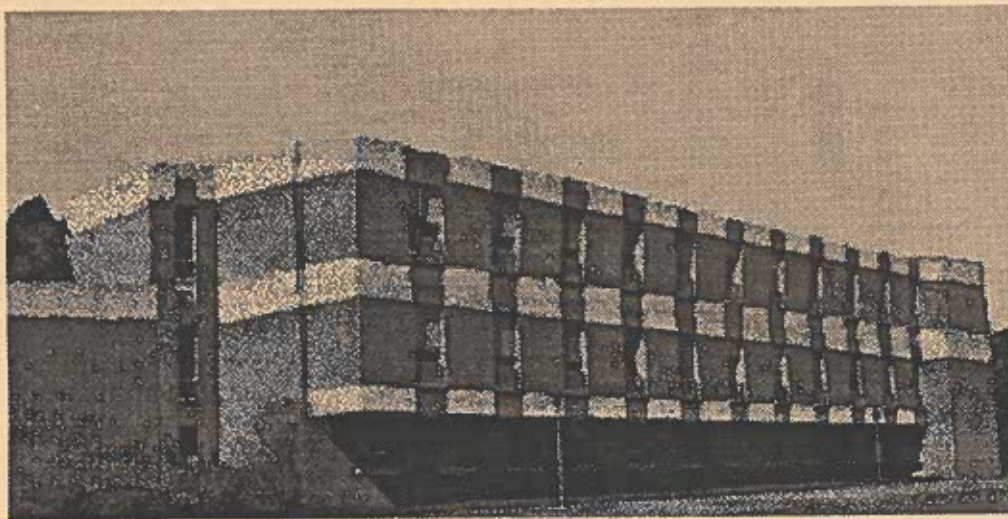
On September 8, 1995 the Second Annual Undergraduate Research Symposium took place at William and Mary, held in the new University Center. The first such symposium occurred in 1994. At the 1995 event 65 student research presentations were made, most in poster format and 10 as ten-minute talks. Both the physical sciences and the life sciences were represented, with student participants from each of the departments of biology, chemistry, computer science, geology, mathematics and physics. Not surpris-

ingly, in view of this department's emphasis on undergraduate research, the majority of the participating students were from chemistry. The quality of the talks and posters was exceptionally high, and one faculty member was heard to say that his expectations for this event were much exceeded. One of our new faculty members, Professor Debbie Bebout, deserves great credit and commendation for doing a superb job in initiating and organizing this Symposium series. It is supported by an award from the Merck Foundation, administered by the American Association for the Advancement of Science, and supplemented by funds from DuPont.



David Soles and Kevin Bocek examine a poster.

## Renovation and Expansion of Rogers Hall



As reported in the last newsletter, we have been studying plans to renovate and expand Rogers in order that we can continue to provide our students with the same quality of education as we have in the past. Although the renovation and expansion of Rogers has been the second highest priority on the College's capital improvement proposals for the last several years, it has not made it as far as the Governor's budget—until last month. This past December the Governor recommended the Rogers Hall project in this budget to the Legislature. We hope that the final version signed by the Governor in late spring will still have the Rogers Hall project in it.

The initial plan calls for adding a third floor and for attaching a wing to the west end of the present structure extending toward Millington Hall. Eric Dawnkaski has generated this pictorial rendition of Rogers after such expansion. The present teaching labs would be brought up to contemporary standards of safety. To alleviate the crowded conditions we are now experiencing, there would be increased amounts of space for both teaching and research labs, the library

would be enlarged significantly, and a second lecture hall would be added under this plan. All of this has generated considerable excitement from us and others. Gillian Cell (College Provost) is "delighted" and "astounded" by the Governor's proposal. She hopes "it survives because we need it desperately." We all have our fingers crossed.

# Student News

## Class of 1995

Michael Amendola	William Limburg
Pamela Arnold	Jonathan MacDonald
Mark Baghdassarian	William Martin
Paul Barrett	Holly Meany
Laurie Beilstein	Gregory Miller
Laura Brennehan	Christian Muller
Bryan Cheek	Amy Narducci
Carol Clower	Hung Nguyen
Brian Courchaine	Kenneth Owen
Duy–Thu Dinh	Ryan Pasternak
Tara Director	Rahul Patel
Andrea Dobberman	Amar Patnaik
Wesley Eargle	Caryn Prairie
David Eldridge	Jose Quinteiro
Christine Enos <sup>M</sup>	Adam Rawlett
Caitlin Freeman	Bethany Revak
Seren Frantz	Tara Roberson
Robert Gaudette	Jeffery Rogozinski
Paulo Gazoni	Leslie Rule
Leslie Harrison	Amena Saiyid
Vicki Healy <sup>M, G</sup>	Kathryn Saylor
Laura Hoover	Anthony Serafino
Maria Huacani <sup>M</sup>	Thomas Simpson
Jennifer Johnson	Susan Switzer
Ashley Jones <sup>M, G</sup>	David Tunstall
Stephanie Jones <sup>M</sup>	Glenn Vanderver
Brian Katt	David Tunstall
Susy Kim <sup>M</sup>	Michael Welch
Melody Kipp <sup>M</sup>	John Yang <sup>M</sup>
Justin Krieger	

<sup>M</sup> Monroe Scholar    <sup>G</sup> Goldwater Scholar

## Master's Candidates, 1995

Rhonda Barksdale	teacher, Va. public schools
William Bryant	Ph.D. program, VA Tech
Jadee Cabral	Ph.D. program, EVMS
Sharon Fitzhenry	Hoechst Celanese
Leslie McCullough	Ohio Center of Sci. & Industry
Robin Southward	Applied Science, W&M
Scott Thompson	Ph.D. program, U. of Ill.

## Chemistry Honors and Awards for 1995

In academic year 1995 the following students did senior honors research and graduated with honors:

Pam Arnold, *I. Measurement of the Displacement Products in the Reaction of 4-Fluorophenyl-4'-nitrophenyl Methanone with m-Cresol; II. Molecular Weight Determination of a Random Copolymer by Light Scattering* (Orwoll)

Vicki Healy, *Dansylated 4-Phenyl-3-Butynoic Acid: A Potential Mechanism-based Inhibitor for Peptidylglycine  $\alpha$ -Amidating Monooxygenase* (Bebout)

Maria Huacani, *Trans-(2-Phenylcyclopropyl)Acetic Acid: A Potential Suicide Substrate for Peptidylglycine Alpha-Amidating Monooxygenase* (Bebout)

Bill Limberg, *Computer Simulation of Polymer Phase Separation and Glass Transition* (Kranbuehl)

Will Martin, *Dielectric Relaxation Mechanisms of Super-cooled Organic Solutions in Porous Glass* (Orwoll)

Amy Narducci, *A Study of the Magnetic Properties of  $Co_{1-x}Ni_xCl_2 \cdot 2H_2O$  and  $Fe[S_2CNC_4H_8O]_2Cl$*  (DeFotis)

Caryn Prairie, *NMR Studies of Synthetic Models of Protein Metal-Bonding Sites* (Bebout)

Jon Trinidad, *The Purification of Products from the Paternó-Büchi Reaction between Alkenylboronate Esters and Aromatic Carbonyl Compounds* (Hollis)

The following students also received awards at graduation:

**Pam Arnold**, Alumni Undergraduate Research Award

**Viki Healy**, American Chemical Society Distinguished Achievement in Chemistry Award

**Maria Huacani**, Hypercube Award

**Ashley Jones**, American Institute of Chemists Achievement Award

**Caryn Prairie**, William G. Guy Prize in Chemistry

## Special Honors

**Vicki Healy** received the Bottetourt Medal at Commencement ceremonies, making 1995 the third consecutive year in which this award for scholarship has been given to a graduating Chemistry concentrator. Vicky was also recipient of a Howard Hughes Medical Institute Predoctoral Fellowship. The Class of 1995 included eight Monroe Scholars and two Goldwater Scholars.

Eight senior concentrators (Class of 1995) were inducted into the Alpha Chapter of Phi Beta Kappa:

<b>Pam Arnold</b>	<b>Duy–Thu Dinh</b>	<b>Tara Director</b>
<b>Vicki Healy</b>	<b>Maria Huacani</b>	<b>Ashley Jones</b>
<b>Melody Kipp</b>	<b>Caryn Prairie</b>	

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The College of



## Faculty Profile



Cirila Djordjevic with students in lab

On a hot August day in 1968 Cirila Antolovic Djordjevic arrived at William and Mary with her 17 year old son Boro. The Brafferton offered them hospitable guest rooms for the first few days, and her husband Branko and her mother joined them after two months. To Cirila Djordjevic Williamsburg was a charming, sleepy, hot and humid little town, a big change from her native Slovenia, located at the southern outskirts of the Alps. The winds of the Second World War had perturbed her highschool and undergraduate years.

She got her B.S. at the University of Zagreb, Croatia, in 1950. Her Ph.D. Degree in Inorganic Chemistry was obtained in 1959 at University College, London, England. Returning to the University of Zagreb, she worked at the Faculty of Science and Mathematics teaching chemistry, and at the Research Institute "Rudjer Boskovic", supervising at times the research

of 20 research associates and postdocs, along with a number of masters and Ph.D. students. Summers she used to spend in England at her *alma mater*, which was at the time one of the best centers for inorganic chemistry. There she met most of her American chemist-friends, who were passing through or staying at University College for a while.

The "Old Rogers Hall" of 1968 looked to Cirila Djordjevic like a uniquely enchanting kind of building—with a touch of history of chemistry. From 1968 to 1992 she lectured in various courses to over 3,000 students, and supervised the research of 50 students, several of whom proceeded to a masters degree at William and Mary. With her students she published many papers. In 1986 the College of William and Mary honored Professor

Djordjevic with the Garrett-Robb-Guy Professorship "in recognition of her academic distinction as a dedicated teacher and an eminent scholar". In 1991 she received the Thomas Jefferson Award. Now "retired", she continues to write (three papers and a chapter for a book in 1995). Some of her best friends are her previous students.

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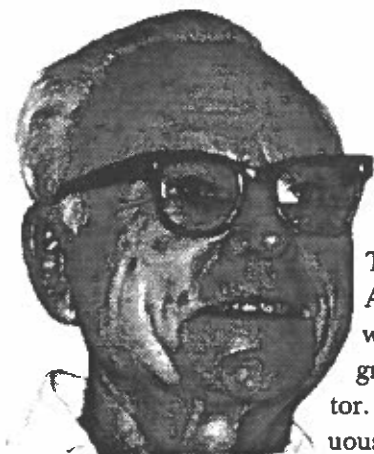
### Ode to P-Chem

*Oh, p-chem, p-chem chars the brain;  
Too many labs drive one insane.  
Though liquid N<sub>2</sub> sure is fun,  
You cannot wait till lab is done.  
And yet some night in December deep  
Your tortured mind won't let you sleep.  
"P-CHEM," it cries, "how I miss you;  
I cannot wait for 302!"*

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Emily Buehler, Class of 1996





## Alfred Armstrong Fund

The Department of Chemistry is establishing a fund in honor of Alfred Armstrong. Alfred began his 67-year (and still counting) association with William and Mary when he enrolled as a freshman in 1928. After graduation four years later, he joined the chemistry faculty as an instructor. Apart from time spent earning his doctorate, Alfred has taught continuously at his *alma mater*. His dedication to high standards and rigor are remembered by thousands of students who learned analytical and general chemistry from him. Returning alums have discovered that memories work both ways. With a twinkle in his eye, Alfred is inclined to pull an old grade book out from his drawer to remind a visiting graduate how well he or she had calibrated a particular pipette or analyzed for chloride many years earlier in his analytical laboratory. (Regarding pipettes, many do not know that Alfred is responsible for the color coding that is commonplace on pipettes today. Years ago as a consultant to reduce errors in a hospital laboratory, he discovered a high frequency of careless mixing of sizes in the pipette storage bins. So he proposed to their manufacturer that different sized pipettes be marked with different colors to make it easier to sort the glassware by size—a clever suggestion from someone with red-green color blindness.)

In the profile of Alfred Armstrong featured in the last *Chemistry Distillations*, we included this Armstrong quote: "The laboratory experience is essential in science. Where else does one learn the inordinate cussedness of inanimate objects?" To honor Alfred's dedication to the chemistry laboratory, we are asking donors to contribute to the Alfred Armstrong Fund to generate funds for purchasing and maintaining instrumentation for our Chemistry laboratories and for a number of other important purposes. The need is great. Instrumentation grows more diverse, more sophisticated, and more expensive at the same time that our funding becomes tighter and tighter and our enrollments grow. A particular problem arises for the purchase of instruments in the \$5,000-20,000 range—too expensive for the department's operating budget yet below the usual range of funding by major federal and private funding sources. Other important needs include summer research scholarships for undergraduate chemistry concentrators and the purchase of chemicals and glassware for their research, travel by students to conferences, computer software, and occasional distinguished lectureships that will enhance the teaching and research mission of the department.

## How to Contribute

Many Chemistry alumni already support the College with gifts to the William and Mary Annual Fund. For this, we are very grateful. It would be wonderful to have gifts directed to the Alfred Armstrong Fund as well. The Development Office advises us that donors may write a single check supporting the William and Mary Annual Fund and the Alfred Armstrong Fund with a designation of how the gift should be allocated. (Checks should be made out to College of William and Mary and sent to Office of Development, College of William and Mary, Williamsburg, VA 23187.) As with all such gifts to the College, this will be tax deductible, will be formally acknowledged by the College, and will result in the donor's name being included in the annual report of donors. The Chemistry Department also has larger projects for which it seeks support. These include purchasing major instruments and, if the College is successful in getting state funding for an addition to Rogers Hall, equipping the new laboratories. Individuals interested in such projects should contact either Robert Orwoll (Chemistry Chair) at 804-221-2540 or Dennis Slon (Vice President for Development) at 804-221-1001.