

#### **BIOCHEMISTRY FACULTY**

**Charles Brenner, Head** Lori Wallrath, Vice Chair Sheila Baker **Heather Bartlett** John Dagle Kris DeMali Adrian Elcock **Ernesto Fuentes Pamela Geyer George Giudice Shahram Khademi David Price Peter Rubenstein Madeline Shea Elisabeth Swain** M. Todd Washington **Daniel Weeks Ronald Weigel Marc Wold** 

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Theresa Gioannini Swaminathan Ramaswamy Nancy Stellwagen Joseph Walder Liping Yu

#### **EMERITUS FACULTY**

Arthur Arnone
Thomas Conway
John Donelson
Alice Fulton
Rex Montgomery
Bryce Plapp
Arthur Spector
Earle Stellwagen
Charles Swenson

#### **BIOCHEMISTRY STAFF**

Brenda Kunkel Karen LeVelle Julie Lueth Paul Rogers Rosemary Stratton Maggie Spencer

#### **BIOCHEMISTRY STORES**

Justin Rogers, Director Don Boehme Benjamin McClintock Lori Streb Troy Struzynski

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Summer, 2011

# BIOCHEMISTRY @ IOWA

### Dear Alumni & Friends of Iowa Biochemistry,

I write you from lowa City, where the regional unemployment rate is still among the lowest five in the US, where the University is undergoing nearly



a billion dollars worth of construction, and where faculty in Biochemistry are continuing to compete effectively for NIH and other funding.

To keep our labs funded, faculty here are spending unprecedented amounts of time on grant writing. To cope with the fact that all of our existing research funding ends on dates certain and paylines are so low, most of us are continuously writing one or more proposals under time pressure. This feels like being stuck in the time warp of a second year graduate student's comprehensive exam. However, whereas the vast majority of comps are given a passing grade, only a fraction of meritorious grant proposals are funded. Note to students: we are training you for the real world.

By now, almost everyone in the Department has had his or her ego bruised by peer review. The most common complaints are that there isn't enough money in the system to support all of the good science, that there isn't enough resolution in scoring to distinguish a 10th percentile proposal from a 15th percentile proposal, and that reviewers don't know our experimental systems as well as we do. Whereas the first two complaints are undeniable, applicants have to take the position that any errors that reviewers make in understanding our proposals are our fault. And, whereas "bad calls" happen in peer review just as they do in ball games, over the fullness of time and averaged over a group of individuals, we largely get what we deserve. Applicants succeed in obtaining and retaining funding by being extraordinarily creative, crystal clear, and by showing high productivity from prior support. In this regard, current paylines are applying selective pressure that has the potential to make us better, more evolved scientists.

Selective pressure, by definition, can also kill projects. This is where our values as a Department come into play. Essentially, by budgeting to help colleagues and assisting with teaching in order to support research proposal revision, we embrace collective responsibilites, while also incentivizing hard work and rewarding success. This type of altruistic environment will be necessary to make the Department and all of its members stronger in coming years.

Faculty who brought new or renewed units of NIH funding in the last year included **Sheila Baker**, **John Donelson**, **Miles Pufall**, **Daniel Weeks** and myself. There are early indications that **Adrian Elcock**, **Kris DeMali** and others will receive new federal funding in the coming year.

For timely news on the Department, please visit our website at http://biochem. uiowa.edu, like us on http://facebook.com/iowabiochem, and follow our blog at http://medcom.uiowa.edu/biochem. We need to hear from you to spread the word about your achievements since leaving the Department — I encourage you to email me or to pick up the phone and call. It is always an honor to learn Departmental history, to meet alumni and friends and, along with outstanding current personnel, to extend the influence of our Department into the future.

Finally, save the date: we will celebrate the Department's 65th birthday at our Annual Retreat on August 24, 2013. If you are interested in helping organize this event, please be in touch.

Best,

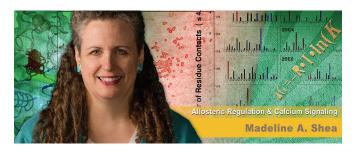
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Roy J. Carver Chair and

Head of Biochemistry

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### FACULTY AWARDS



In May, Madeline Shea was inducted into the Johns Hopkins University Society of Scholars, which honors former postdoctoral fellows, doctoral degree recipients, house staff and junior or visiting faculty who served at least one year at Johns Hopkins and thereafter gained marked distinction elsewhere in the fields of physical, biological, medical, social or engineering sciences or in the humanities. The citation stated that Madeline, a PhD alumna of Johns Hopkins, "is known for a consummate depth and quantitative clarity. Her investigations explore the very essence of living systems; and her outcomes continue to transform prevailing views of how networks of biological molecules maintain and regulate cellular life."

In addition to this ringing praise from her alma mater, Madeline received the Michael J. Brody Service Award from CCOM. Among her major service achievements, Madeline was cited for serving as Interim Head of Biochemistry and for developing the CCOM FUTURE Program (see page 5).

P1 TEACHER OF THE YEAR Elisabeth Swain, Lecturer Biochemistry, was selected as the 2011 College of Pharmacy P1 Teacher of the Year. The selection was based on student voting, letters of support from students, and the selection committee's review of her teaching philosophy. She will be recognized this fall at the Elisabeth Swain, PhD College's Scholarship Reception.



This is the second time Elisabeth has been recognized by the student body of the College of Pharmacy.

Charles Brenner recently became chair of the Publications Committee of the American Society of Biochemistry and Molecular Biology.

Todd Washington accepted an invitation to serve as a standing member of the Molecular Genetics A initial review group at NIH.

#### CCOM AWARDS BANQUET

Lori Wallrath was honored this year with the Collegiate Teaching Award from CCOM. Beyond the classroom, Lori has trained a diverse array of individuals, including two high school students, over 30 undergraduates, two junior high school teachers, numerous graduate rotation students, five PhD candidates, five postdoctoral fellows, three technicians, and a faculty member at a primarily undergraduate institution.



Lori Wallrath and CCOM Dean Paul Rothman at the CCOM Awards Banquet

**Rubenstein** received the 2010 Faculty Service Award from CCOM. In addition to being an internationally known expert on the structure and function of actin, Peter is a beloved teacher of medical students, and a tireless, vocal and effective member of college committees too numerous to name.

Peter Rubenstein accepts his award from Dean Paul Rothman at the CCOM Awards Banquet

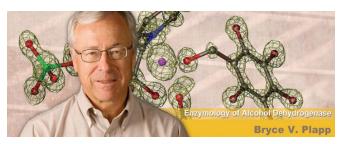


Pamela Geyer accepted an invitation to serve as a standing member of the Molecular Genetics B initial review group at NIH. Pam also recently became an Associate Editor of Genetics.

David Price gave the keynote address at the first international meeting on P-TEFb in September, 2010 at Ringberg Castle, Germany.

### MILESTONES: END OF THE PLAPP-DONELSON ERA

Two faculty members with a combined 77 years of service to lowa Biochemistry have announced their transitions to Emeritus, effective this summer. Together, **Bryce Plapp** and **John Donelson** personified accomplishments in biochemistry and molecular biology at lowa throughout the last four decades.



A Michigan State BS, Bryce Plapp earned his PhD in 1966 at Berkeley, where he characterized multiple forms of  $\beta$ -glucuronidase and worked on the protein chemistry of RNase with R. David Cole. He went to Frankfurt as an American Cancer Society post-doctoral fellow with

Gerhard Pfleiderer to synthesize active site directed reagents for alcohol dehydrogenase (ADH) and returned to the US as a research associate at Rockefeller with William Stein and Stanford Moore, shortly before they won the Nobel Prize. He characterized lysyl residues of DNase and ADH and discovered a way to increase the activity of ADH by 10-fold. Bryce came to Iowa as an assistant professor in 1970, where he and co-workers characterized the structure, mechanism and function of ADH isozymes using protein chemistry, site-directed mutagenesis, kinetics, and X-ray crystallography. During a research leave in Uppsala, he determined the 3D structure of the first ADH-substrate complex.

In addition to his 1971 *JBC* paper with Stein and Moore, which is a citation classic, Bryce is an author of 10 of the most highly cited papers on ADH structure and function. His >100 publications have accumulated more than 3000 citations in the last two decades.

Bryce received 41 years of R01 funding plus a unit of Continued on page 6

# SCIENCE WRITING SYMPOSIUM

On April 27 and 28, Lori Wallrath hosted Perspectives on Science Writing, co-sponsored by the Council on Teaching, the School of Journalism & Mass Communication, the Departments of Biochemistry, Anatomy & Cell Biology, Physiology, Pharmacology, the Obermann

Center, and CLAS.

The Symposium featured a keynote address by Judith Swan, Associate Director for Writing in Science & Engineering at Princeton. Her research focuses on writing development during scientific training and on ways language

shapes the interpretation of emerging science. Judith is the author of several articles, most notably "The Science of Scientific Writing" (American Scientist, 1990) which argues that considering the cognitive needs of readers can increase clarity and effectiveness.

# **Publication Highlights**

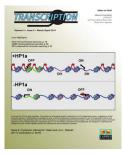


Chemical & Engineering News (2010), volume 88, issue 48

**Adrian Elcock** and **Sean McGuffee** made a big splash with a paper in the March 2010 issue of *PLoS Computational Biology*. In the November 2010 issue of *Biopolymers*, their Brownian dynamic simulations of the *E. coli* cytoplasm were described as "an instant, towering landmark in biophysics." The impact of this paper was also highlighted in an October 12 *PNAS* commentary and a figure was featured on the cover of *Chemical and Engineering News*.

Pamela Geyer, Lori Wallrath and colleagues continue to publish high-profile papers, including a September 2010 *Development* article on lamin C in muscle and a June 2011 *Current Opinion in Cell Biology* review on nuclear organization. Diane Cryderman, Michael Vitalini and Lori also scored the March 2011 cover of *Transcription*.

**John Dagle** and co-workers published a featured article in the July 2011 *Journal of Pediatrics* on CYP2D6 genotype and pre-term infant blood pressure.



Transcription (2011), volume 2, issue 2

# POSTDOCTORAL ACHIEVEMENTS

**Ugur Akgun** (Khademi lab) accepted a position as an assistant professor at Coe College in the Department of Physics. **George Dialynas** (Wallrath lab) was awarded a research fellowship from Association Française contre les Myopathies to conduct a screen for drugs that ameliorate a model of muscular dystrophy in flies.

**Rebecca Fagan** (Brenner lab) was awarded an American Cancer Society Postdoctoral Fellowship, which she will use to characterize and identify inhibitors of DNA methyltransferase 1.

**Michael Vitalini** (Wallrath lab) has accepted a position at St. Ambrose University as an assistant professor in the Department of Biology.

### GRADUATE STUDENT NEWS

#### RECENT PhD Graduates and Current Positions

Sarah Bergeron (Rubenstein lab)—postdoctoral fellow with Heather Bartlett, University of Iowa Elke Nelson (DeMali lab)—postdoctoral fellow with Aaron Blaisdell, University of California at Los Angeles Xiao Peng (DeMali lab)—postdoctoral fellow with Keith Mostov, University of California at San Francisco Tyson Shepherd (Fuentes lab)—postdoctoral fellow with Anthony Forster, Uppsala University, Sweden

The Department has been working to track information regarding PhD graduates. At http://medcom.uiowa.edu/biochem/?p=569 we provide data on publications per student and time to PhD for entering classes from 1985-2005. These 21 entering classes produced 126 PhDs. Remarkably, all but one continued his or her education with either medical school or an academic

post-doctoral fellowship. Average time to degree was 5.5 years and average number of publications per PhD was 3.25. For the first three class years, six of the 18 PhDs now hold the title of director of research and eight hold the title of professor. Further information on PhD alumni can be found at http://biochem.uiowa.edu/graduate/alumni.html.

#### GRADUATE STUDENT SPOTLIGHT

Several graduate students received awards this year. **Susan O'Donnell** (Shea lab, 2009 PhD) received the 2010 Clarence Berg Award for "scholarship, integrity, cooperativeness, consideration and willingness to help others." **Bret Freudenthal** (Washington lab, 2010 PhD) won the 2010 Subramanian Thesis Award. **Xiao Peng** (DeMali lab, 2011 PhD), was named the 2011 Sandra H. Barkan Outstanding Graduate Student Mentor for her work with undergraduates in the DeMali lab. Notably, two of her three undergraduate collaborators will have published papers with her. **John Pryor** (Washington lab) has been awarded a two year fellowship from the American Heart Association to complete his PhD on the role of replication accessory factors in promoting translesion DNA synthesis.

Sarah Bergeron (Rubenstein lab, 2010 PhD), visited Washington DC in September, as part of the ASBMB 2nd Annual Graduate Student/Postdoc Hill Day. Along with ten other young scientists from around the country, Sarah met with senators and representatives and lobbied for NIH funding support to ensure consistent, sustainable growth in future years.

Sarah's DC visit was featured in *ASBMB Today*. In an interview, she summed up her commitment to the issue succinctly: "Sustained federal commitment to scientific research is the only way to promote the science required to keep up with the ever changing needs of our population. As researchers, it is our responsibility to give decision-makers the necessary tools to support science progress."



Sarah Bergeron with Senator Tom Harkin during her Washington DC visit with ASBMB

### Undergraduate Programs



Left to Right: Drew Jones, Aditi Khanna, Peter Kim, Melissa Palma, Michael Zhang, Caitrin McDonough

Five Biochemistry Honors students presented research at the 7<sup>th</sup> Annual **Gene F.** Lata Undergraduate Research Symposium, dedicated this year to the memory of Gene and his first two graduate students, **John Franz** and **Arthur Fishkin**, both of whom passed away in the last year.

This year, **Caitrin McDonough**, an undergraduate alumna (Wallrath, 2005), gave a talk at the Symposium. She recently finished her PhD at Wake Forest University, and is now a postdoctoral fellow at the University of Florida.

Several of the Lata honors students plan to attend medical school including Michael Zhang (Monick lab), entering the MSTP program in CCOM; Melissa Palma (DeMali lab), who is attending CCOM; and Drew Jones (Elcock lab), who is working on his applications to MD and DO programs. Aditi Khanna (Plapp lab) is now a research assistant in Ophthalmology at lowa, and Peter Kim will enroll in the MPH program at lowa in the fall.

#### Undergraduate Student Spotlight

Ashley Angell, a senior biochemistry major in the DeMali laboratory, received the prestigious 2011-2012 Stevens Phi Beta Kappa Scholarship, awarded each year to a junior in the College of Liberal Arts & Sciences pursuing a degree in natural science who exhibits a high standard of academic excellence and personal integrity. She also received Honorable Mention for the Goldwater Scholarship, a premier undergraduate award in the fields of mathematics, the natural sciences and engineering. Currently, Ashley is conducting research in the DeMali lab under an ICRU fellowship (see below).

We are pleased to report that many of our undergraduates were awarded fellowships to support their research. Four students were awarded an Iowa Center for Research for Undergraduates (ICRU) fellowship this summer. The fellowship provided students with a stipend to work on a faculty member's research project. **Rutviben Patel** is in the Brenner lab studying nicotinamide riboside metabolism in yeast; **Ashley Angell** is in the DeMali lab studying vinculin mediated cell-matrix adhesion; and **David Simoens** 

and **Dylan Thiemann** are in the Wallrath lab studying the role of chromatin proteins in gene expression and the role of lamins in gene expression, respectively.

Three students were awarded fellowships for offcampus study this summer. **Emmalee Boyle** from the Wallrath lab and **Allyson Mayer** from the Brenner lab both received a study abroad scholarship to study in Spain. In addition, **Rini Kasinathan** from the Geyer lab is a summer fellow in John Stamatoyannopouls' lab in Genome Sciences at the University of Washington.





Above: 2011 BSURF Students
(L to R): Brian Darling, Kristen Syring,
Abigail Sieman, Adam Verhoef,
Chelsea Backer, Ernie Fuentes
(Advisor), Charlotte Feddersen, AaronAlbert Hargrave.

Left: Biochemistry FUTURE Participants

(L to R) Kristy McClellan, Maria Dean (back row) and Caitlin Hof, Katelyn Marshall (front row) CCOM's FUTURE in Biomedicine program, now in its third year, welcomed faculty fellows and their accompanying students from six schools across lowa, two of whom were placed in Biochemistry laboratories: Kristy McClellan of Buena Vista University and her student Caitlin Hof are working with Pamela Geyer on transcription factor function in development; Maria Dean and her student Katelyn Marshall from Coe College are working with Sheila Baker on Xenopus as a model system for expression of secreted proteins. This program was founded and is directed by Madeline Shea.

Under the direction of **Ernesto Fuentes**, the Biochemistry Summer Undergraduate Research Fellowship (BSURF) program welcomed seven students from around the country this summer. These rising college seniors participated in a 10-week program to do research. BSURF concluded with a poster symposium in which students presented their work to the University community.

### PLAPP & DONELSON, CONT.

#### from page 3

K-series funding from NIH, and a research award from NSF. His research established paradigms for enzyme mechanisms and provided insights on therapeutic approaches for treatment of acute alcohol poisoning. He co-edited the series *Enzymology and Molecular Biology of Carbonyl Metabolism*, served on the editorial boards of *JBC* and *ABB*, and on several NIH review panels. He has also been a national and international representative for lowa Biochemistry by giving lectures in Australia, New Zealand, Germany, Finland, Sweden, Ireland, Canada, Taiwan and Mexico.

A stalwart contributor to the educational mission of the department, Bryce taught 3000 undergraduate and graduate students in the classroom, and trained 25 post-doctoral fellows, 13 PhDs, an MS student, and 14 undergraduate honors students. Though Bryce is known to be challenging, he is devoted to teaching, making himself available to students in one-on-one sessions. His remarkable command of facts, figures, methods and interpretations have made him an unforgettable and invaluable critic to his own students and to the many students with whom he interacts. Bryce's trainees are a remarkably accomplished group of investigators, who are leaders in industry, biotechnology, academics, and the NIH. Bryce plans to be an active Emeritus, finishing many papers for publication and doing some lab work.



An Iowa State BSc, John Donelson joined the Peace Corps and spent the following two years teaching physics and mathematics in a junior college in Ghana, West Africa, where he saw firsthand the havoc wrought by infectious diseases. After reading about the molecular biology revolution in Scientific American issues that arrived six months late via sea freight, John returned to the States to attend graduate school at Cornell University, where he earned his PhD in Biochemistry in 1971 for work on exonucleolytic DNA sequence determination with DNA polymerase I. He was then awarded a Helen Hay Whitney fellowship to further develop DNA sequencing and phage molecular biology in Cambridge, England, with Nobel Laureate Fred Sanger. Indeed, work that John and other luminaries did with Sanger during this period contributed to Sanger's second Nobel Prize. After a brief additional postdoc stint at Stanford University with David Hogness, John joined the Department in 1974 as an assistant professor, where he has conducted leading edge research in molecular biology and characterization of African trypanosomes.

Among his most important research discoveries were his 1974 *Cell* paper with Pieter Weinsick and David Hogness on chromosome mapping in flies, his 1980 *Nature* paper reporting the sequence of the yeast 2 micron circle, and his groundbreaking contributions to the genomics of trypanosomes in three *Nature* and *Science* papers. Twenty years after first reading *Scientific American* articles in Africa, he wrote a 1985 review article in the same journal on "How the African Trypanosome Changes Its Coat."

John's research has been internationally lauded and supported by multiple institutes at the NIH and the Howard Hughes Medical Institute. He served on major advisory boards in New York, Bethesda, Geneva, Uganda, Nairobi and elsewhere. He co-directed the Woods Hole parasitology course for two years, lectured in every continent, and conducted sabbatical research in Kenya and Australia. At lowa, his honors and responsibilities included directing the Interdisciplinary PhD Program in Genetics from 1983-84, delivering the Presidential Lecture in 1990, and serving as Head of Biochemistry from 1998 to 2008.

At lowa, John has been an outstanding teacher and served as a mentor of 29 PhD students and 23 post-doctoral fellows. John has also been a remarkable collaborator with junior faculty and others. Among his 255 publications, he was a co-author of Carol Newlon's first paper at lowa in 1977, Tim Schedl's first paper in 1978 and Richard Maurer's paper on the first cloning of the prolactin gene, and he helped to launch the career of Mary Wilson, who remains a close collaborator. Emblematic of his enduring gifts to the University, John hands over the NIH Molecular Parasitology training grant with five additional years of funding, having earned a perfect 10 in its most recent competitive renewal submitted with Mary Wilson.

In coming years, John plans to work on his farm outside of Iowa City and do some family traveling.

### STAFF NEWS

Justin Rogers, who has been with the Biochemistry Department for 10 years, was named Manager of Biochemistry Stores in November. Biochemistry Stores also added two new Project Assistants this year, Ben McClintock and Troy Struzynski.



Back row (L to R): Ben McClintock, Julie lueth, Justin Rogers, Maggie Spencer Troy Struzynski

The Departmental office also welcomed two new staff members this year. Julie Lueth is the Project Assistant to the head and to the graduate program. Maggie Spencer, also a Project Assistant, handles grant proposal submissions and Biochemistry courses.

# **ALUMNI NOTES**



John York, PhD

Two former undergraduates of the Department were named Fellows of the American Association for the Advancement of Science: Professors John York of Duke University and Susan Wente of Vanderbilt University. After undergraduate research with Arthur Arnone, John did his PhD with Phil Majerus at Washington University, where he established a major presence in

inositol phosphate signaling. He is now a Professor of Pharmacology & Cancer Biology and of Biochemistry, and a Howard Hughes Investigator at Duke University. After undergraduate research with **Alice Fulton**,

Susan did her PhD at Berkeley and her post-doctoral work at Rockefeller before joining the faculty at Washington University, where she rose through the ranks. She then moved to Vanderbilt to chair Cell Biology. In addition to running her research group on nucleocytoplasmic trafficking, she is now Associate Vice Chancellor for Research and Senior Associate Dean for Biomedical Sciences at the Vanderbilt School of Medicine.



Susan Wente, PhD

In June, **Lourdes Cruz**, one of Biochemistry's most illustrious graduates, was honored by CCOM with the Distinguished Alumna Award. Lourdes, a 1968 PhD graduate with **Clarence Berg**, is known for her discovery of toxins in the venom of marine snails. This finding has contributed to the development of pain-killers and molecular probes to study brain function. Along with her dedication to discovery comes a determination to use science and technology to alleviate poverty within the Philippines' indigenous communities. Cruz is currently a Professor Emerita at the University of the Philippines, where she has spent the majority of her career.



Xiao Peng, Lourdes Cruz and Charles Brenner at the CCOM
Distinguished Alumni Awards Luncheon

Detach here and return

#### ALUMNI: WHERE ARE YOU NOW?

Please share your latest comings and goings with us!
Name:
Current Position:
Email Address:
Street Address:
City, State, Zip:
Degree, Graduation Year:
Ulowa Mentor:
A A . T. I.

Mail to:

The University of Iowa, Dept of Biochemistry 51 Newton Road, 4-403 BSB Iowa City, IA 52242-1109

Or email us at biochem@uiowa.edu

#### **IOWA BIOCHEMISTRY T-SHIRTS**

Gold on Black: Black t-shirt with gold Biochemistry screen print

Sizes: Adult S-XL

Black on Gold: Gold t-shirt with black Biochemistry screen print

Sizes: Adult S-XL

**Biochemistry Polo** 

Black polo shirt with gold hawk embroidered at the chest

Sizes: Men's M-XXL, Women's S-L

T-shirts are \$10 each and polos are \$20. Please add \$2 per order for shipping. Please indicate color, style and size. Make checks payable to The University of Iowa. Email biochem@uiowa.edu with questions.

Mail to:

The University of Iowa , Dept of Biochemistry 51 Newton Road, 4-403 BSB Iowa City, IA 52242-1109

### BIOCHEMISTRY O IOWA

The University of Iowa Department of Biochemistry 51 Newton Road 4-403 Bowen Science Building Iowa City IA 52242-1109

### **UI FOUNDATION**



Shelly Mott

Biochemistry is pleased to introduce our new representative at the University of Iowa Foundation, Ms. Shelly Mott. Shelly is a Tipton Iowa native and UI graduate. While

husband Joe has transitioned to a professional life post-NFL, Shelly has transitioned from a career in law to the world of philanthropy.

Private support, which has always been important for the Department, it is nothing short of critical in today's environment. Hundreds of donors have expressed their loyalty to Biochemistry and lowa through gifts, large and small. These gifts make it possible for our best graduate students and post-docs to attend meetings and receive awards, for the Department to purchase new equipment, for

us to pay for a seminar series and named lectureships, and for Biochemistry to attract and retain outstanding faculty members. To facilitate gifts, Shelly has created a donor website at <a href="http://www.givetoiowa.org/biochemistry">http://www.givetoiowa.org/biochemistry</a>.

A tax-wise adviser, Shelly also encourages conversations with friends of the Department who are thinking about creating an endowment, either with an outright gift or by estate planning. The Department is enormously grateful for the establishment of the Dr. Lois Gehring Graduate Student Scholarship in Biochemistry, the Dr. Ruth Ann Henriksen Biochemistry Fund, the Carl Vestling Lectureship Fund, and the Roy J. Carver Chair in Biochemistry. Shelly travels extensively—Bowl Games included—and would be happy to talk with friends of the Department by phone (800-648-6973) or by email (shelly-mott@uiowa.edu).

