



The University of Iowa  
Department of Biochemistry

## BIOCHEMISTRY FACULTY

John Dagle  
Kris DeMali  
John Donelson  
Adrian Elcock  
Ernesto Fuentes  
Alice Fulton  
Pamela Geyer  
Theresa Gioannini  
George Giudice  
Shahram Khademi  
Rama Mallampalli  
Peter Nagy  
Bryce Plapp  
David Price  
Peter Rubenstein  
Madeline Shea  
Nancy Stellwagen  
Elisabeth Swain  
Lori Wallrath  
Todd Washington  
Dan Weeks  
Ronald Weigel  
Marc Wold

## EMERITUS FACULTY

Arthur Arnone  
Tom Conway  
Rex Montgomery  
Arthur Spector  
Earle Stellwagen  
Charles Swenson

## BIOCHEMISTRY STAFF

Brenda Kunkel  
Karen LeVelle  
Paul Rogers  
Jan Shields  
Rosemary Stratton

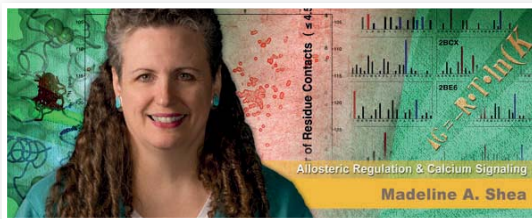
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# BIOCHEMISTRY *at* IOWA



## *Greetings to our alumni and friends,*

The academic year of 2008-9 has been one of many changes for the University of Iowa and the Dept. of Biochemistry. Last June, we were in the midst of a severe flood that damaged many treasured buildings including Hancher, the Art Museum, and the Iowa Memorial Union. All academic and research functions at the University of Iowa were halted for a week, and several bridges across the Iowa River were closed for much longer. Fortunately, Biochemistry laboratories in Bowen Science Building and the Medical and Education Research Facility were unharmed.

Last July, former Department Head Professor John Donelson stepped down from his administrative duties. In August, he began a developmental leave in Melbourne, Australia, at the Walter and Eliza Hall Institute of Medical Research (p. 3).

A search for a new Head was led by Professor Emeritus Daryl Granner. We are delighted to announce that, as a result of his tireless efforts and the generosity of Dean Paul Rothman, we will welcome Professor Charles M. Brenner as the next Head of the Department of Biochemistry on July 1. Dr. Brenner is currently Professor of Genetics and of Biochemistry, as well as Associate Director for Basic Sciences in the Norris Cotton Cancer Center at Dartmouth Medical School (<http://medcom.uiowa.edu/research/?p=1169>).

Between the terms of Professors Donelson and Brenner, I have served as Interim Head of the Department. In the fall, we had the opportunity to celebrate the selection of Art Spector for the Distinguished Mentor Award (p. 5). Our office staff changed (p. 5) as Mary Petersen and Lori Jones left Biochemistry, and Karen LeVelle was hired. I am delighted to report that two faculty were promoted during this period—Dr. Lori Wallrath from Associate Professor to Professor, and Dr. M. Todd Washington from Assistant Professor to Associate Professor with tenure (p. 2). This year, multiple faculty members were honored for their commitments to teaching and discovery. The accomplishments of Adrian Elcock, Pamela Geyer, Dan Weeks, and Marc Wold, as well as those of many of our talented undergraduate and graduate students are highlighted in this issue. A generous donation from Dr. Lois Bigger Gehring (p. 7) will allow us to offer a scholarship to deserving graduate students in the future. Gifts from the family of Gene Lata endowed our Honors Undergraduate Symposium which is held in the spring.

We have a busy summer underway. Many Biochemistry undergraduate majors are in our laboratories conducting independent research projects for course credit. They are joined by a record number of 12 students from colleges throughout Iowa and Minnesota who have been awarded a Biochemistry Summer Undergraduate Research Fellowship (BSURF). They will spend 8 weeks working under the mentorship of Biochemistry faculty members. We are also hosting three Faculty Fellows from undergraduate colleges throughout Iowa in the inaugural year of the FUTURE in Biomedicine program which I am directing (p. 7). An ongoing current appeal to honor Dr. Ruth Ann Henriksen will allow us to support additional Faculty Fellows in subsequent years.

We hope that you will enjoy catching up on Biochemistry news and will browse our newly revised website ([biochem.uiowa.edu](http://biochem.uiowa.edu)). Please visit us in person and get re-acquainted when you are next in Iowa City!



Charles M. Brenner

Madeline A. Shea  
Interim Head, Department of Biochemistry

# Biochemistry Faculty Members Promoted

The Carver College of Medicine and The University of Iowa recently announced the promotion of Dr. Lori Wallrath to Professor of Biochemistry and the promotion of Dr. M. Todd Washington to Associate Professor with tenure. The appointments are effective July 1, 2009.

**Dr. Lori Wallrath** received her doctorate from Michigan State University and postdoctoral training at Washington University, St. Louis, MO. She joined the Department of Biochemistry in 1996. Dr. Wallrath has mentored numerous undergraduates, graduate students, and postdoctoral scholars and regularly serves as instructor of both Molecular Biology of Gene Expression and the second semester of Biochemistry and Molecular Biology, as well as other courses. Her research focuses on connections between gene regulation/chromatin structure and disease (more on Dr. Wallrath's research and publications can be found at <http://www.biochem.uiowa.edu/wallrath/>). Dr. Wallrath is serving as co-organizer of the summer 2009 Midwest Breast Cancer Research Symposium to be held July 17-19 at the Holden Comprehensive Cancer Center at The University of Iowa (see poster at right).



Lori Wallrath, Ph.D.



M. Todd Washington, Ph.D.

**Dr. M. Todd Washington** earned his doctorate at The Ohio State University and received postdoctoral training at the University of Texas Medical Branch, Galveston, TX. He joined the Department of Biochemistry in 2003. He has taught several courses within the department, most frequently Biophysical Chemistry and Experimental Biochemistry, while mentoring several undergraduate and graduate students in his laboratory.

Dr. Washington's research focuses on elucidating the mechanisms of proteins involved in the replication of damaged

DNA at the kinetic, thermodynamic, and structural levels—with the understanding that replication of damaged DNA is responsible for many DNA damage-induced mutations, which play an important role in the development of cancer. More on Dr. Washington's research can be found at <http://www.biochem.uiowa.edu/washington/>



Madeline Shea, Lori Wallrath, and Todd Washington at departmental party to celebrate promotions.

## John Donelson

After 10 years as the Department Head (1998-2008), John Donelson is spending the year on developmental leave as a visiting scientist at the Walter and Eliza Hall Institute for Medical Research (WEHI) in Melbourne, Australia. WEHI is associated with the University of Melbourne and the Royal Melbourne Hospital, and its scientists conduct research on infectious diseases, cancer and immunology. John writes from Melbourne, "I am working in the laboratories of Alan Cowman and James Beeson, both experts on malaria infections and International Howard Hughes Investigators. My research is focused on understanding how malaria parasites recognize and invade human red blood cells.

The invasion process involves a number of malaria proteins that have complicated expression and processing patterns. The goal is to better understand the biochemical properties and functions of these proteins in anticipation this information will lead to better ways to block this invasion by the malaria parasites and prevent the disease. Outside of the lab, my wife Linda and I are enjoying our experiences in Melbourne and Australia. We are living in an apartment in one of the Colleges of the University of Melbourne, which is patterned after the Universities of Cambridge and Oxford in England where the Colleges serve as residence halls for students and faculty. I walk to work down a nice tree-lined boulevard each day. We don't have a car, but we have taken some weekend trips outside of Melbourne and have visited Tasmania and Western Australia. Melbourne is an interesting, diverse city, but we're looking forward to returning to Iowa City in August."



**John Donelson in the lab at the Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia.**



Biochemistry faculty gather for photograph in Bowen Science Building. Seated, left to right: Shahram Khademi, Rex Montgomery, Ernie Fuentes, Madeline Shea, John Donelson, Alice Fulton, Kris DeMali. Standing, left to right: Todd Washington, Bryce Plapp, Pam Geyer, Adrian Elcock, Arthur Spector, Dan Weeks, Earle Stellwagen, Marc Wold, Peter Rubenstein, David Price, Theresa Gioannini, Rama Mallampalli, Nancy Stellwagen, Peter Nagy, S. Ramaswamy. Not pictured, Lori Wallrath (see photo, page 2), and, at right, John Dagle, George Giudice, Ron Weigel.



**John Dagle**



**George Giudice**



**Ron Weigel**

## Awards to Biochemistry Faculty

Five Biochemistry Department faculty members are recent recipients of national, University, and collegiate awards in recognition of career achievements.



### **Marc Wold, Professor**

Marc Wold was elected to receive the distinction of Fellow of the American Association for the Advancement of Science (AAAS) for “his research on RPA, or replication protein A, which is increasing the understanding of cancer cell proliferation and

changes that occur when cells age.” Dr. Wold was honored with other new AAAS Fellows—including two Carver College of Medicine faculty, Dr. Garry Buettner and Dr. Paul Rothman—at the 2009 AAAS annual meeting in February.



### **Pamela Geyer, Professor**

Pam Geyer was one of six University of Iowa faculty members to win a 2008 Regents Award for Faculty Excellence. The award, given by the Board of Regents, State of Iowa, honors faculty members for work representing a “significant contribution to excellence in public

education.” Dr. Geyer was cited for her significant scientific contributions, along with her “long record of service to the University and to the College that included seven years as director of the Medical Scientist Training Program.”



### **Adrian Elcock, Associate Professor**

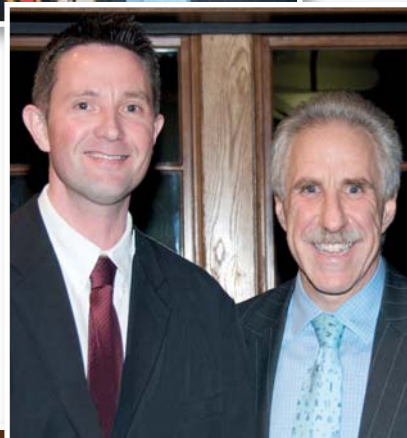
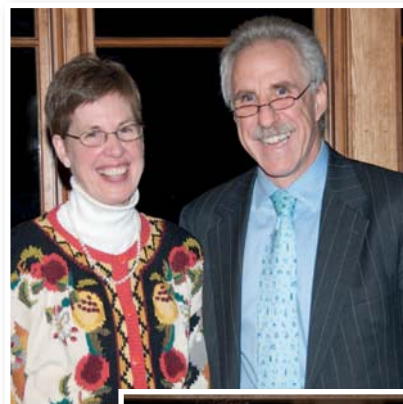
Adrian Elcock received a Carver College of Medicine Collegiate Teaching Award to honor his “significant and meritorious achievement in teaching.” In nominating Dr. Elcock for the award, many former and current students provided letters of support attesting to his excellence in teaching in both the classroom and the lab. Dr. Elcock was honored for his award at a collegiate faculty recognition dinner at the Brown Deer Golf & Country Club.

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### **Dan Weeks, Professor and Director, Graduate Program**

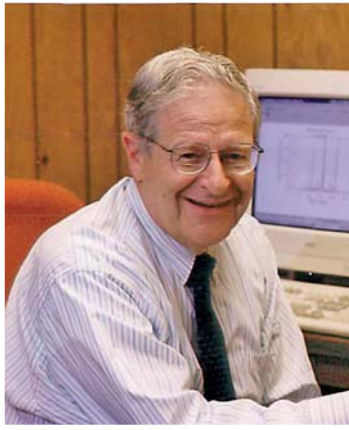
Dan Weeks received an Outstanding Educator Award, Carver College of Medicine, and was honored at a collegiate awards breakfast in November, 2008.



*Photos, Susan McClellan, Creative Media Group*

**At the Carver College of Medicine faculty awards banquet held at Brown Deer Golf & Country Club; top, Pam Geyer and Paul Rothman, Dean of the Carver College of Medicine; middle, Adrian Elcock and Paul Rothman; bottom, Adrian Elcock and lab members.**

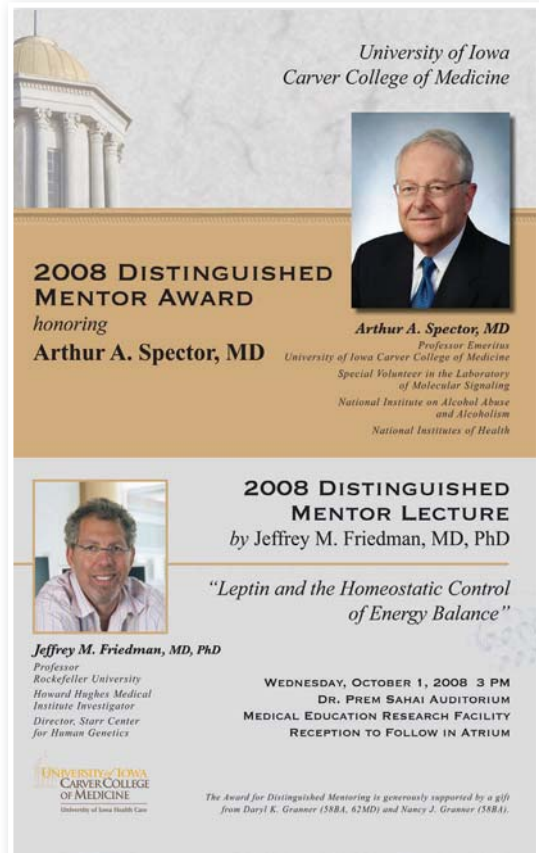
## Arthur Spector Named Distinguished Mentor



The Carver College of Medicine presented its Distinguished Mentor Award at a ceremony on October 1, 2008, to **Dr. Arthur Spector**, Professor Emeritus, in recognition of his “outstanding commitment to mentoring and substantial impact on trainees who have established their distinguished careers.” While conducting a highly successful career in research focused on fatty acids in biological systems, he also taught biochemistry to first-year medical students for many years. The Distinguished Mentor Award and Lecture (see poster below) were established and are supported by a gift to the UI Foundation from Nancy and Daryl Granner, M.D., who both received bachelor's degrees at the UI. Daryl Granner, a Distinguished Alumnus of the UI, also received a Master of Science degree and a medical degree from the UI and was

a Biochemistry Department faculty member from 1970 to 1984 .

Arthur Spector retired from the Department of Biochemistry in 2008 and now lives in Maryland with his wife, Jean. He is currently associated with the Laboratory of Molecular Signaling, National Institute of Alcohol Abuse and Alcoholism (NIAAA) of NIH as a Special Volunteer working on the function of lipids in the brain. He reports he is “having a great time ... advising people within his group, evaluating results, and offering suggestions for new research directions.” He remains a member of the NIH Special Emphasis Panel on Vascular Biology, several editorial boards, and the McGraw-Hill Yearbook Board.



Poster announcing Arthur Spector’s Distinguished Mentor Award.

## Meet Karen LeVelle

Karen LeVelle is Biochemistry’s new account clerk. She joined the department in November, 2008, replacing Lori Jones who took a position with the Department of Dermatology at The University of Iowa Hospitals and Clinics. Karen assists departmental administrator, Rosemary Stratton, in the management of departmental resources and is largely responsible for procuring equipment and supplies ordered by labs in the department. Prior to joining Biochemistry, Karen worked in the University’s Accounts Payable office for seven years.



Karen LeVelle

Karen resides in the Cedar Rapids area. In her spare time, she enjoys being with family and friends, is an avid bowler, plays volleyball, and coaches her nieces’ softball and soccer teams.



Jan Shields, Brenda Kunkel, Mary Petersen, Lori Jones, and Rosemary Stratton join for a group photo at the going-away party for former departmental secretary, Mary Petersen (center), who moved to Texas.

## 5th Annual Gene Lata Undergraduate Honors Symposium

The 5th Annual Gene Lata Undergraduate Honors Symposium was held April 29, 2009, with three senior Biochemistry undergraduates—**Tze Fei Gan, Brandon Menke, and Amy Rohlfiing**—presenting the results of their year-long Honors research projects. Following graduation, the three students will be headed in different directions—Amy Rohlfiing to graduate study at Harvard, Brandon Menke to medical school at Iowa, and Tze Fei Gan to her home in Malaysia.



Students presenting at the 2009 Lata Symposium pose with their mentors and Honors Advisor, Dr. Bryce Plapp. Left to right: Dr. Bryce Plapp, Brandon Menke, Dr. Andrew Norris, Tze Fei Gan, Dr. Marc Wold, Dr. Kris DeMali, and Amy Rohlfiing.

Students in the University's Honors Program must maintain at least a 3.3 GPA, complete an honors research project, write a thesis, and give a seminar in order to earn the designation of graduating with honors.

The Symposium is named for former Biochemistry faculty member Dr. Gene Lata, who in 1971 helped initiate the Biochemistry undergraduate majors program at The University of Iowa and served as its director until he retired in 1992. About 100 undergraduates at Iowa are currently majoring in biochemistry.

## Gates Cambridge Scholarship Winners

Two undergraduate biochemistry majors, **Emily Alden** and **Garth Strohbahn** (pictured at right), were among only 45 U.S. winners of the 2008 Gates Cambridge Scholarship, a highly selective international award. Both are currently pursuing graduate studies at Cambridge University in England. Emily, from Geneseo IL, is currently involved in research on the history of cancer treatment. Garth, from Boone, IA, will focus on understanding the molecular and genetics bases of obesity and insulin resistance.



Emily Alden



Garth Strohbahn

## Biochemistry T-Shirts Available to Order

Biochemistry Department t-shirts are available to order in adult sizes, S–XXL, and youth sizes, S–XL, in either gold with black lettering or black with gold lettering, and toddler size 2 in pale yellow with black lettering. Cost is \$10 per shirt. Use form at right to order your t-shirt.



Modeling Biochemistry t-shirts are Karen LeVelle (left), account clerk; Kelly Wilson, student assistant; and in front, Katie Washington, daughter of Todd Washington and Christine Kondratick.

### Order form for Biochemistry T-Shirts

Adult or youth, black shirt with gold lettering								
S	YS	M	YM	L	YL	XL	YXL	XXL
<i>Please indicate quantity. (\$10 each.)</i>								

Adult or youth, gold shirt with black lettering								
S	YS	M	YM	L	YL	XL	YXL	XXL
<i>Please indicate quantity. (\$10 each.)</i>								

Toddler sz 2, yellow with black lettering, quantity (\$10 ea.): \_\_\_\_\_

Name
Address
City, State, Zip

Make check payable to University of Iowa.

Mail to: The University of Iowa, Dept. Biochemistry, 4-403 BSB, Iowa City, IA 52242-1109

## Gift Campaign to Honor Henriksen

Friends and former colleagues of **Dr. Ruth Ann Henriksen**, who graduated with a Ph.D. in biochemistry with Whyte Owen at The University of Iowa, have initiated a gift campaign to recognize Dr. Henriksen's career and accomplishments. Dr. Henriksen has been battling cancer for two years. Funds collected from the campaign will be used to support faculty fellowships in the FUTURE in Biomedicine program held during the summer at The University of Iowa. The fellowship supports faculty from small colleges in Iowa who wish to broaden their research by taking advantage of the resources available at The University of Iowa, and thereby further their education to better their role as faculty mentors to undergraduates at their institutions.

Anyone who wishes to contribute to the campaign to honor Dr. Henriksen may do so by visiting [www.givetoiowa.org/medicine2](http://www.givetoiowa.org/medicine2) and selecting the Department of Biochemistry and designating that your gift is in honor of Dr. Henriksen. You may also send a check or money order to:

*ATTN: Biochemistry Fund  
The University of Iowa Foundation  
P.O. Box 4550  
Iowa City, IA 52244-4550*

Be sure to indicate on your check or in an attached note that your gift should be directed to the Biochemistry General Gift Fund in honor of Dr. Henriksen.

## FUTURE in Biomedicine Program



FUTURE in Biomedicine faculty fellows and their students gather outside Bowen Science Building at start of their summer research program. The faculty, from colleges throughout Iowa, were invited to nominate one of their own students to join in their research at The University of Iowa. Three of the seven faculty fellows are conducting research in Biochemistry labs. Front row, left to right: Aimee Villard, Jodi Enos-Berlage, Sujan Devbhandari, Karissa Carlson. Back row: Jerry Honts, Ryan Sheehy, Dan Pratt, David Speckard, and Alex Menning.

## Gehring Endows Scholarships

The Department of Biochemistry is the recipient of a gift of \$100,000 made by **Dr. Lois Bigger Gehring**. The gift will be used to endow graduate student scholarships. Dr. Gehring stated that she chose to make the gift because she was the recipient of two years of scholarship support while a graduate student at The University of Iowa.

Dr. Lois Bigger Gehring received a B.A. in biology from Cornell College in Mt. Vernon, Iowa (her hometown), an M.S. in microbiology from The University of Iowa, and a PhD in microbiology from Cambridge University, Cambridge, England. Dr. Gehring spent most of her career as a part-time faculty member in biochemistry at the University of Michigan and as a lecturer in the Department of Biochemistry at Eastern Michigan University. She is married to Dr. Frederick W. Gehring, Emeritus Professor of Mathematics, University of Michigan.

## Awards to Graduate Students and Postdoctoral Scholars

The Department of Biochemistry announces the following American Heart Association stipend awards to graduate students, **Susan O'Donnell**, **Cathy Staloch**, **Xiao Peng**, **Belinda Pinto**, and **Bret Freudenthal** and postdoctoral fellows, **George Dialynis**, and **Monika Joshi**. Postdoctoral fellow, **Michael Vitalini**, is the recipient of an NIH National Research Service Award.

Former graduate student, **Zeynep Akyol Ataman**, was winner of the 2007-08 Berg award given to a Biochemistry graduate student who "best displays qualities of scholarship, integrity, cooperativeness, consideration, and a willingness to help others." **Eric N. Brown** was the winner of the 2008 Subramanian award for best thesis work of the year. The Subramanian Award was created by an endowment from alumnus, Dr. Alap Subramanian, and comes with a \$500 cash prize.



Graduate student AHA Award winners (l to r): Susan O'Donnell, Xiao Peng, and Belinda Pinto. Not pictured, Bret Freudenthal; Cathy Staloch.

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