



The University of Iowa
Department of Biochemistry

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BIOCHEMISTRY @ IOWA



Dear Friends of Iowa Biochemistry,

Preserving Biochemistry graduate education is a topic near and dear to all of our hearts. The Tilghman report (www.nap.edu/books/0309069815/html) has stimulated a national debate on how many PhDs we should train, how we should train them, and how to support the multiple pipelines of productive employment for our PhDs. The Biochemistry Department at Iowa has a great track record of producing college educators, industrial scientists, business leaders, people with 100% research positions, and faculty members at research-intensive educational institutions. While the macroeconomic climate has clearly made publicly funded research more challenging, our graduates continue to find teaching positions, post-doctoral opportunities, and permanent employment, and we continue to attract recent college graduates to become new graduate students in Biochemistry.

Paying for the first year of graduate school is a challenge. When you sum stipend, tuition, and fringe benefits, an annual student package comes to more than \$38,000. Because our students spend the better part of their first year in graduate school taking classes and doing research rotations, the Department must make a significant commitment to graduate education if it wants to train Biochemistry PhDs. Essentially, we need \$33,250 per first year student.

Not every Department makes this commitment. Because there are students recruited to Iowa to earn PhDs in Genetics, Molecular & Cellular Biology, Immunology, and Neuroscience, we could drop our PhD program and continue to train graduate students through these interdisciplinary programs. But that would involve abandonment of the Biochemistry curriculum, our way of conducting comprehensive examinations, and the great traditions of Biochemistry advising that have produced more than 350 PhDs since 1918. We could also keep the Biochemistry PhD program but not admit our own first year class, depending solely on recruitment of first year students from the Biosciences umbrella program. However, Biochemistry would lose the ability to select students we think will succeed in our Department and lose the ability to ensure that we have an entering class of students. Because Biosciences admits relatively few students and is extremely broad, depending on Biosciences would cede our program to budgets and interests outside our control.

In our annual budget, a fixed line item for graduate education and TAships is not provided. We can only pay for first year graduate stipends by keeping other costs down. As recovery of faculty salary from external research grants declines, there is a lesser degree to afford first year packages. While there are also fewer graduate student "binding sites" with declining research funding, we continue to project faculty demand and funding for about 4 new students per year.

\$3 million will endow our first year graduate class – we are already almost \$1 million toward this goal! If you agree that producing Biochemistry PhDs is fundamental to the mission of our Department and can help us with donations large or small, please phone me at 319-335-7934 or visit www.givetoioowa.org/biochemistry. These donations are central to the future of graduate education in Biochemistry at Iowa and will catalyze all manner of future discoveries, not to mention the career advancement and life fulfillment so many in the Department have enjoyed.

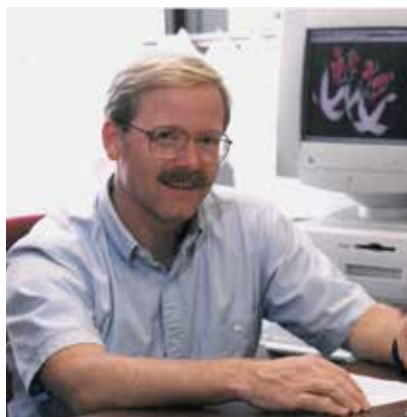
Best,

Roy J. Carver Chair and
Head of Biochemistry

In this issue...

Faculty Memoriam	_____	p2
Faculty Honors	_____	p3
Publications Highlights	_____	p4
Departmental Outreach	_____	p5
Postdoctoral News	_____	p5
Graduate Programs	_____	p6
Undergraduate Programs	_____	p7
Staff News	_____	p8
Alumni Notes	_____	p8
UI Foundation	_____	p9

IN MEMORIAM



Andy Robertson's Biochemistry Faculty Photo, circa 2001.

Andrew D. (Andy) Robertson passed away on Thursday, August 14, 2014 in Portland, Oregon. Andy received a BS in Biology from University of California, San Diego, and a PhD in Biochemistry from the University of Wisconsin, Madison, under Dr. John Markley, where he began working on Kazal proteinase inhibitors, including turkey ovomucoid third domain. He then moved to Stanford, where he was a Damon Runyon-Walter Winchell Cancer Research Fund post-doctoral fellow with Robert (Buzz) Baldwin, working on RNase unfolding.

Andy and his wife Sue Travis took positions at Iowa in 1991, Andy as an assistant professor of Biochemistry and Sue as a post-doctoral researcher with Michael Welsh and others, including Adrian Elcock and Dan Weeks. Some of Andy's most notable work at Iowa was published with colleagues such as Jan Jensen, Kip Murphy, Rob Piper, and with superb trainees including Thirunavukkarasu Sivaraman, Cam Arrington, Liskin Swint-Kruse, and Wolfgang Schaller.

After 13 productive years on the faculty in Biochemistry and holding the rank of full professor, Andy bravely moved first to Merck as a medical writer, and then became the chief scientific officer at the Keystone Symposia in Colorado. There, he grew the organization and held a number of NIH grants to expand opportunities for scientists to attend these conferences. In 2011, Andy moved to Heidelberg to become the scientific coordinator of the EMBL International Centre for Advanced Training and, in 2012, he moved to Portland, Oregon as the chief science and medical officer for the National Psoriasis Foundation.

Andy made many contributions to structural biology, was a gifted teacher, devoted husband and father, and was a friend and mentor to many of us in this department, and to colleagues around the world. He was brilliant, cheerful, and always attentive.

The 2014 Annual Retreat of the Department of Biochemistry held on Saturday, August 23, was dedicated to Andy, who will not be forgotten.



Andy Robertson at the Departmental 65th Anniversary and 4th Annual Retreat in 2013.



Theresa L. Gioannini lost her battle with multiple myeloma on Saturday, January 4, 2014. Theresa received a BS in Chemistry from St. Mary-of-the-Woods College in 1971 and an MS and PhD in Chemistry from New York University in 1976 and 1978, respectively. She began her career at New York University and Buruch College, earning the rank of Full Professor at Buruch in 1993 prior to her academic career at the University of Iowa. In 1998, she and her husband Jerrold Weiss joined the Inflammation Program in Internal Medicine and Theresa was granted the position of Adjunct Professor of Biochemistry.

For the last 15 years, Theresa contributed to the Biochemistry undergraduate educational program and conducted research on toll-like receptors, most recently publishing in *Nature* and *Innate Immunity*. She will be greatly missed by colleagues, students, and family. She was remembered with a gathering and mass at the UI Newman Center on January 25, 2014.

FACULTY HONORS



Ernesto Fuentes was promoted to Associate Professor of Biochemistry. Ernie began working in the Department of Biochemistry as an assistant professor in January of 2006 after completing a PhD at the University of Illinois at Urbana-Champaign and

two postdoctoral fellowships focused on structural and cancer biology at the University of Pennsylvania and the University of North Carolina at Chapel Hill, respectively. Dr. Fuentes has built national prominence for his work on the structure, dynamics and specificity of PDZ domain-containing proteins.



L to R: Tingting Duan, Michael Anderson, Pamela Geyer, Steve Glenn, Lucy Barton, James Bullard, and Garrett Skinner.

Pamela Geyer received the 2013-2014 Graduate College Outstanding Faculty Mentor Award in the Biological and Life Sciences. Professor Geyer has demonstrated excellence in a wide variety of mentoring functions over the past two and a half decades at the University of Iowa. Her direct and indirect mentorship has produced a cohort of University of Iowa scientists and physicians who are exceptionally well trained and have succeeded in becoming faculty members, research scientists, physician scientists, and other accomplished professionals.



L to R: Liam Hovey, Madeline Shea, and Dagan Marx.

Madeline Shea was awarded a Distinguished Mentor Award for University of Iowa faculty for professional and scientific staff who have mentored undergraduates as they complete research and creative projects. According to her nominators, students Liam Hovey and Dagan Marx, she “encourages the integration of independent thought and collaborative effort.” Madeline was recognized at the University of Iowa Discovery and Innovations Awards Ceremony, hosted by the Office of the Vice President for Research and Economic Development.

Madeline was also named a Woman of Innovation by the Technology Association of Iowa for her role in creating the FUTURE (Fostering Undergraduate Talent - Uniting Research and Education) program. The “Women of Innovation” award recognizes leaders in math, science, technology, and engineering.



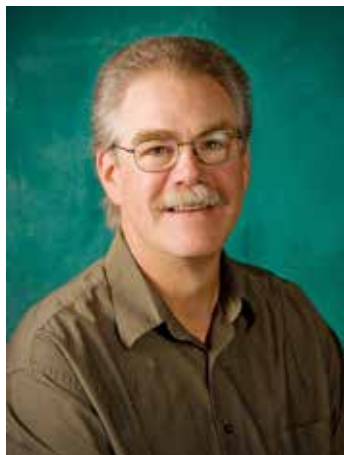
Charles Brenner received a 2014 Regents Award for Faculty Excellence. The award, which is given to those faculty whose work represents “a significant contribution to excellence in public education,” is one of the highest honors given by the University of Iowa for faculty achievement.

In his nomination, Dr. Brenner was noted for his deep engagement in research, his efforts to expand student learning opportunities, and his aptitude for bringing together individuals from different departments in order to establish new intercollegiate research and education initiatives, such as the UI Obesity Research and Education Initiative and the High Throughput Screening Facility.

(Continued on page 4)

FACULTY HONORS, CONT.

(Continued from page 3)



David Price was elected Fellow of the American Association for the Advancement of Science (AAAS) “for distinguished contributions to the field of eukaryotic transcription, particularly for founding discoveries in RNA polymerase II elongation control and regulation of

HIV gene expression.” Dr. Price joins **Marc Wold** and **Charles Brenner** among current primary faculty who are Fellows. Dr. Price was presented with an official certificate and a rosette pin during the AAAS Annual Meeting in Chicago last February.



L to R: Dean Debra Schwinn and Daniel Weeks.

Daniel Weeks was honored as an Outstanding Educator in the Department of Biochemistry on Medical Education Celebration Day in November 2013. Professor Weeks was an instructor of Medical Biochemistry from 1995-2013 and is now serving on the CCOM Curriculum Development and Review Committees. The new medical curriculum is being introduced this year.



L to R: Kris DeMali and Dean Debra Schwinn.

Kris DeMali received the Carver College of Medicine’s Collegiate Teaching Award for 2013-2014. In addition to serving as an instructor and course director for Biochemistry and Molecular Biology II, she has also taught biochemistry to pharmacy and dental students, and has served as a research adviser for undergraduates, graduate students, and postdoctoral fellows. Her award citation read that as a role model and mentor, Professor DeMali “helps foster in our students a renewed confidence, a dedication to the ideals of science, and a passion for learning.”



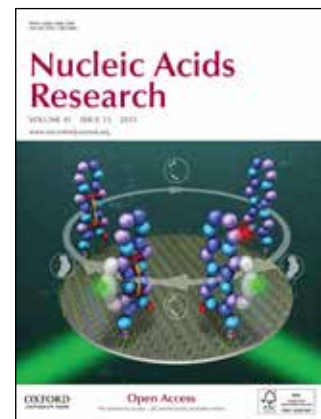
Maria Spies was featured in an article in *The Scientist* as a “Scientist to Watch.” Titled, “Maria Spies: Molecular Machinist,” the article highlights her career before she was recruited to the University of Iowa, including work in a lab at the St. Petersburg Nuclear Physics Institute, doctoral work at Osaka University, post-doc-

toral work investigating DNA repair at the University of California, Davis, where she made a breakthrough discovery on double-stranded DNA repair in *E. coli*. As an assistant professor at the University of Illinois at Urbana-Champaign, she expanded her work to characterize Rad52, Brac1, and several helicases using novel single molecule methods.

Dr. Spies joined the Department in 2012 as a tenured associate professor. Her research has been funded by the American Cancer Society, Howard Hughes Medical Institute, and the National Institutes of Health.

PUBLICATION HIGHLIGHTS

Maria Spies's laboratory was featured on the July 2013 cover of *Nucleic Acids Research*. The article entitled, "Single molecule study of the CUG repeat MBNL1 interaction and its inhibition by small molecules," describes a single-molecule approach developed to achieve a mechanistic description of the MBNL1 RNA biomolecular recognition event and to facilitate the discovery of drugs to inhibit its formation. This method revealed a mode of inhibition whereby the ligands and MBNL1 can form a ternary complex on the toxic CUG RNA instead of competing for the same binding site. Rational design of a new RNA binding ligand with a 100-fold increase in potency over previously validated compounds highlights the power of the developed methodology. The paper is co-authored by current Spies lab post doc, **Masayoshi Honda** along with Dr. Amin Haghighat Jahromi and Professor Steve Zimmerman of University of Illinois at Urbana-Champaign.



Nucleic Acids Res., July 2013.

Maria Spies's laboratory also published a Featured Article in the April 2013 issue of *Nucleic Acids Research* entitled "Single-molecule sorting reveals how ubiquitylation affects substrate recognition and activities of FBH1 helicase." NAR's Featured Articles represent the top 5% of papers in terms of originality, significance and scientific excellence. Former Spies lab members Dr. **Tokiha Masuda-Ozawa** and Ms. **Trish Hoang** were first and second authors of this work.

Ashley Spies's laboratory was featured on the October 2013 cover of *ChemMedChem* with their image of "the molecular structure of glutamate racemase from *Bacillus subtilis* (ribbon) with a novel inhibitor (space-filling) bound to the active site cleft. The inhibitor was discovered via an *in silico* lead optimization technique, termed FERM-SMD, that combines steered molecular dynamics simulations and ensemble docking." Former Spies graduate student **Katie Whalen** was first author of this work.



ChemMedChem, Oct. 2013.

Pamela Geyer and **Lori Wallrath's** article "The *Drosophila* nuclear lamina protein otefin is required for germline stem cell survival," published in *Developmental Cell*, has been selected for Faculty of 1000 Prime because of its special significance in its field. Former Geyer graduate student **Lacy Barton** was first author of this work.

VISITING PROFESSOR



Professor Thomas Magin from the Translational Center for Regenerative Medicine at the University of Leipzig, Germany, held a Helen C. Levitt Endowed Visiting Professorship in the Department of Biochemistry from February through October, 2014. Professor Magin is an international expert in the molecular pathology of skin inflammation and allergic reactions associated with genetic skin diseases. His research is focused on keratins, cytoskeletal intermediate filament proteins, which reside in the cytoplasm and regulate numerous cell-signaling pathways. He has published 95 papers in top-ranked journals, organized major meetings, and developed valuable mouse models of skin disease that are broadly used in the scientific community.

Professor Magin has an on-going collaboration with **Lori Wallrath**, Professor and Vice Chair of Biochemistry. Together, they have developed a unique genetic model for epidermolysis bullosa simplex (EBS), an inherited connective tissue disease caused by mutations in keratins that results in mild skin blistering to death in humans. This model will be used to determine the molecular basis of the pathology and for small molecule screens to identify therapeutic leads.

DEPARTMENTAL OUTREACH

Madeline Shea presented an overview of the FUTURE in Biomedicine Program, a novel STEM initiative now beginning its sixth year in the University of Iowa Carver College of Medicine, at the June meeting of the Board of Regents.

FUTURE stands for Fostering Undergraduate Talent – Uniting Research and Education. The group sponsors faculty members from primarily undergraduate institutions to bring a student and work in a host laboratory in Iowa City where they make use of state-of-the-art instruments, research facilities, and faculty expertise. They also participate in weekly events to learn about the resources and training programs offered by the Carver College of Medicine and the Graduate College. A major goal of FUTURE is to develop a statewide network of scientist-educators conducting collaborative research and sharing best practices for teaching undergraduates about the breadth of new discoveries in biomedicine.

Adina Kilpatrick (Shea laboratory), the 2013 Ruth M. Henriksen FUTURE in Biomedicine Fellow in the Department of Biochemistry and Assistant Professor of Physics at Drake University, recently co-authored an article with Madeline Shea in *Biophysical Chemistry* on calmodulin regulation of the ryanodine receptor, entitled “Calcium-dependent energetics of calmodulin domain interactions with regulatory regions of the Ryanodine Receptor Type 1.”

Ernesto Fuentes has been selected to serve as the Faculty Advisor for the Association for Multicultural Scientists (AMS). AMS has chapters at Purdue, Minnesota, and Michigan. The organization’s primary goal is to aid in the recruitment, retention, and support of historically underrepresented students in the sciences.

Grant Young, a junior Biochemistry major in the Wallrath laboratory, presented a poster entitled “Good things come in small packages: Fruit fly models of muscle and heart disease,” at Research in the Capitol in April 2014. Since 2006, outstanding undergraduate researchers from the University of Iowa, Iowa State University, and the University of Northern Iowa gather in Des Moines for a day dedicated to research. This exhibition signifies how undergraduates learn by doing research in a variety of fields. Poster presentations give students a chance to share their work with state officials and reporters while discussing how research has enriched their educations, careers, and contributions to Iowa.



Madeline Shea and FUTURE lab member, Jerry Honts, PhD, Associate Professor of Biology at Drake University.

POSTDOCTORAL ACHIEVEMENTS



L to R: Vice President of Research Dan Reed, Rebecca Fagan, and President Sally Mason.

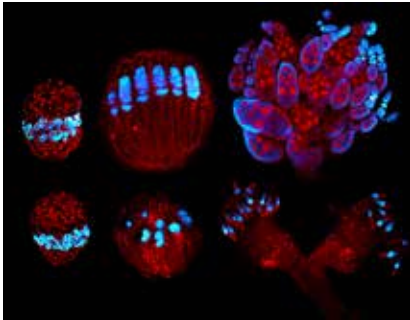
Rebecca Fagan (Brenner laboratory) received the University of Iowa Postdoctoral Fellow Research Award. Rebecca earned her PhD from the University of Michigan with Dr. Bruce Palfey in 2009. At the University of Iowa, she earned an American Chemical Society fellowship and published 4 papers, 2 first author, on biochemical characterization and molecular probe discovery for DNA methyltransferase 1. After completing her third year as a fellow with Dr. Brenner, Dr. Fagan launched her independent career as Assistant Professor of Chemistry at Bucknell University in Lewisburg, PA.

Ruth Grossmann, a postdoc in the Brenner laboratory and an Assistant Professor in the College of Nursing, was awarded a Research Scientist Development Award by the National Institute of General Medical Sciences for her project “Metabolomic Biomarkers of a Nutritional Intervention to Prevent Weight Gain.” This K01

was one of only six awarded from the NIH Directors’ Common Fund for Metabolomics. Grossmann will dissect the mechanisms by which nicotinamide riboside improves fat metabolism in animals and in early stage human trials.

Lawrence Gray (Taylor laboratory) was awarded an F32 NRSA fellowship from the National Institute of Diabetes and Digestive and Kidney Diseases in May 2014 to investigate regulation of hepatic gluconeogenesis by the mitochondrial pyruvate carrier.

GRADUATE STUDENT NEWS



Drosophila female germline stem cells.
Barton Image, 2013.

Lacy Barton (Geyer laboratory, 2014 PhD) was recognized as a finalist in the Image Award Competition at the 55th Annual *Drosophila Research Conference* for an image she generated in

the Geyer lab. The submitted image captures the developmental defects in female germline stem cells resulting from loss of the nuclear lamina protein Otefin and was published in Barton et al., *Developmental Cell* in 2013.

Lacy was also the first author on a paper published in the April 3 issue of *Genetics* titled "Unique and Shared Functions of Nuclear Lamina LEM Domain Proteins in *Drosophila*."

John Pryor (Washington laboratory, 2012 PhD), won the 2013 Subramanian Thesis Award. John is currently a Lineberger Cancer Center Postdoctoral Fellow in Dale Ramsden's laboratory at the University of North Carolina. His postdoctoral work will focus on the mechanism of DNA double-strand break repair by the non-homologous end-joining pathway.

Mark Miller (Elcock laboratory) was awarded a 2014 Outstanding Teaching Assistant Award from the University of Iowa Council on Teaching. Mark was nominated for his work in Biophysical Chemistry I.

Samuel Trammell (Brenner laboratory) received runner up in the Student/Postdoc category for his poster "NAD+ Metabolomics and Its Application to Nicotinamide Riboside Therapies in Rodents" at the University of Iowa 2013 Cardiovascular Research Center Symposium: Academic Research at a Crossroads.

Jessica Ponce (Wallrath laboratory) was awarded an American Heart Pre-doctoral Fellowship to examine the role of the nuclear envelope protein lamin in redox homeostasis in muscle tissue. Jessica is a PhD candidate in the Interdisciplinary Graduate Program in Genetics.

Elizabeth Boehm (Washington laboratory) was one of three students who won the internal competition for the Lasker Essay Contest for her essay titled "Creation of an Independent Trust for Sustainable Funding of Medical Research."

Yuan Pan (Baker laboratory) was the first author on a paper in *Cellular and Molecular Life Sciences* titled "A di-arginine ER retention signal regulates trafficking of HCN1 channels from the early secretory pathway to the plasma membrane," which reports a novel mode of regulating HCN1 channels in the retina. Because these channels are also present throughout the brain and heart, this research might have applications for understanding learning and memory, management of epilepsy and chronic pain, and regulation of heart rate. The paper is co-authored by Baker lab research assistant **Joe Laird** and BSURF student **David Yamaguchi**.

Emily Malcolm (Davies laboratory), won the **Lois Bigger Gehring** Award, which supports travel to research conferences, for taking first place in the graduate student category during the 2014 Annual *Biochemistry Retreat* poster session. Second place in this category went to **Tyler Weaver** (Musselman Laboratory) and third place to **Jacob Litman** (Schnieders Laboratory).



Biochemistry Retreat poster winners, L to R: Tyler Weaver, Emily Malcolm, Dylan Thiemann, Kaylee Lovander, and Jacob Litman.

RECENT GRADUATES

Karina Kruth (Rubenstein laboratory)— postdoctoral fellow with **Miles Pufall**, University of Iowa, Iowa
Jessica Maier (MCB student, DeMali laboratory) — postdoctoral fellow with Vijay Shah, Mayo Clinic, Minnesota
Lacy Barton (Geyer laboratory)— postdoctoral fellow with Ruth Lehmann, New York University, New York

UNDERGRADUATE PROGRAMS

Twelve Biochemistry Honors students presented research at the Tenth Annual **Gene F. Lata** Undergraduate Research Symposium.

Dagan Marx (Shea laboratory) will attend graduate school at Johns Hopkins University in the Program in Molecular Biophysics. **Lisa Golden** (Fuentes laboratory) will attend graduate school at University of California Los Angeles. **Sophia Chen** (DeMali laboratory) and **EboSetale Okoruwa** (Wold laboratory) will pursue the DDS degree at the University of Iowa College of Dentistry.

Frances Hindt (Fuentes laboratory) will attend Creighton University College of Medicine. **Kyle Klingbeil** (Brenner laboratory) will attend medical school at the University of Miami. **Michael Schrodt** (Elcock laboratory) plans on working in the chemistry or pharmaceutical industry for a few years, then go to medical school to become an Army doctor.

Dylan Thiemann (Elcock laboratory) has a software development internship at Cerner Corporation in Kansas City, MO, and plans to go into software development. **Zac Builta** (Weeks laboratory) will be a research assistant at the University of Iowa Molecular Otolaryngology and Renal Research Laboratories and will be applying for medical school, graduate school, and MSTP. **Gabriel Baccam** (Wallrath laboratory) will be doing research in Cardiovascular Surgery at the University of Iowa and applying for the MD/PhD program.

Oluwatoni Olayiwola (Elcock laboratory) plans to spend a year teaching English in a French secondary



2014 Lata Symposium Presenters, L to R: Zac Builta, Oluwatoni Olayiwola, Michael Schrodt, Dagan Marx, Gabriel Baccam, EboSetale Okoruwa, Lisa Golden, Kyle Klingbeil, Frances Hindt, Reid Brown, and Sophia Chen

school before applying to graduate school in the biological sciences. **Reid Brown** (Elcock laboratory) is enrolling in a one year science master's program and then plans to attend medical school.

The symposium also included the presentation of two undergraduate awards, made possible by a gift from **Alap Subramanian**. The H.G. Wittmann Scholar Award was presented to **Kyle Klingbeil** and the H.G. Khorana Scholar Award was presented to **Lisa Golden**, recognizing their exceptional understanding of biochemistry and its value to society.

UNDERGRADUATE STUDENT SPOTLIGHT



L to R: Grant Young and President Sally Mason.

Grant Young, an undergraduate major in the Wallrath laboratory, received the 2014 Rex Montgomery Scholarship Award for his outstanding academic record and commitment to research. Grant also received an Excellence in Undergraduate Research Award for establishing a genetic model of dilated cardiomyopathy. He will receive funding to attend the 56th Annual Drosophila Research Conference that will take place in Chicago in Spring of 2015. In addition, he received an ICRU Fellowship to continue his research during the summer of 2014. • **Dagan Marx**, an undergraduate major in the Shea laboratory, has been awarded the 2014 Montgomery Biochemistry Scholar's Prize Award for his excellent presentation at the Lata Symposium and for the high quality and breadth of his research. • **Kyle Klingbeil**, a Human Physiology and Biochemistry major in the Brenner laboratory, was awarded the 2013-2014 Stevens Phi Beta Kappa Scholarship by the College of Liberal Arts and Sciences. • **Xin Xu**, an undergraduate in the Brenner laboratory, was awarded the College of Liberal Arts and Sciences Velma E. Stuit Scholarship for Women in Sciences. Ms. Xu is a pre-pharmacy student who is conducting basic research on a post-translational modification that regulates mitochondrial functions in animals as our diets fluctuate from calorie restriction to energy balance to over-nutrition. • **Liam Hovey**, who conducts independent research in the Shea laboratory, was the sole UI recipient of a Goldwater Scholarship to support his senior year. Liam presented his work to President Mason and her guests at the opening Hawkeye Football Game on Labor Day weekend, and in a poster at the 28th Annual Gibbs Conference on Biothermodynamics in September.

STAFF NEWS

Rosemary Stratton received the University of Iowa Distinguished Research Administrator Award. This award recognizes Rosemary's outstanding contributions to research and her long-time commitment to the Department of Biochemistry and the University of Iowa. During Rosemary's tenure, she has welcomed 11 new faculty groups and managed departmental growth with great efficiency.



Rosemary Stratton, second to left, with Vice President of Research Dan Reed (L), and President Sally Mason (R).



L to R: Justin Rogers, Don Boehme, and Lori Streb.

Three Biochemistry Stores employees have reached significant employment milestones. Our thanks to **Lori Streb** (30 years), **Don Boehme** (20 years), and **Justin Rogers** (10 years).

The Departmental Office welcomed two new members this year, **Briana Horwath** and **Dianne Rash**. Briana coordinates graduate student affairs, and the departmental seminar and workshop series. Dianne is the new Senior Accountant, assisting the department with finances.

ALUMNI NOTES



Francis Castellino at the Distinguished Alumni Award Ceremony, June 2014.



Castellino with his grandchildren at the Alumni Ceremony, June 2014.

Francis Castellino was awarded the 2014 University of Iowa Carver College of Medicine Distinguished Alumnus Award for Achievement. Dr. Castellino received his MS and PhD degrees in the Department of Biochemistry at the University of Iowa in 1966 and 1968, respectively, working under the direction of Professor **Robert Barker**. After a two-year postdoctoral fellowship at Duke University under the legendary Dr. Robert Hill, he accepted an Assistant Professor position in the Department of Chemistry at University of Notre Dame, where he launched his independent research program focused on the fundamental mechanisms of blood clotting.

Dr. Castellino has successfully climbed the ladder of academic leadership at the University of Notre Dame, while simultaneously performing groundbreaking foundational research in medicine. Dr. Castellino is the Kleiderer/Pezold Professor of Biochemistry at the University of Notre Dame, Director of the W.M. Keck Center for Transgene Research, and Dean emeritus of the College of Natural Science. His success in both research and administration stems from his passion for understanding fundamental biochemical processes in human beings.

Dr. Castellino was honored by the University of Iowa Carver College of Medicine at the Distinguished Alumni Award Ceremony held on Friday, June 6, 2014, at the Levitt Center for University Advancement.

(Continued on page 10)

ALUMNI NOTES, CONT.

(Continued from page 9)



Susan Wenthe, Vanderbilt University.

Susan Wenthe, Department of Biochemistry alumna and Iowa native, has been named the Provost and Vice Chancellor for Academic Affairs at Vanderbilt University. A professor at Vanderbilt since 2002, she was selected for the position after an intensive nationwide search. Dr. Wenthe graduated from the University of Iowa with honors and high distinction in biochemistry. She went on to receive her PhD in biochemistry from the University of California, Berkeley. Her post-doctoral work was conducted at Memorial Sloan Kettering Cancer Center in New York. Before her promotion, Dr. Wenthe served as associate vice chancellor for research at Vanderbilt for five years. She has also served as senior associate dean of biomedical sciences, professor of cell and developmental biology, and co-chair of the university-wide academic strategic plan executive committee at Vanderbilt. Despite her many administrative and educational roles, Dr. Wenthe maintains an active research program on cellular communication between cytoplasm and nuclei.

Susan is a recipient of the Women in Cell Biology Senior Career Recognition Award from the American Society of Cell Biology, a MERIT award from the National Institutes of Health, and was also named a “2014 Woman to Watch” by Nashville Medical News.

Nicholette Zeliadt, an undergraduate in the Department of Biochemistry from 1997 to 2001, has parlayed her science education into a science writing career. Her most recent article, “Tailoring Your Proteome,” appeared in the August 2014 issue of *The Scientist*. Earlier articles have appeared in *Scientific American*, *Science*, *Nature*, and *The Scientist*. As a biochemistry student, Nicholette took a Technical Communications course, for which she gave a presentation on pathogenic prions—arguably her first real piece of science writing for an audience. Her professional science writing career was launched when, after earning her PhD at the University of Minnesota, she interned at *Scientific American* for a summer during her mass media fellowship from the American Association for the Advancement of Science.

Bret Freudenthal, a 2010 PhD with **Todd Washington**, published a first author *Cell* paper with Samuel Wilson at NIEHS and has been awarded a K99/R00 grant from the same institute to conduct research on the structural biology of DNA repair.

UI FOUNDATION



Biochemistry’s representative at the University of Iowa Foundation is **Anne Barber**.

Private support, which has always been important for the Department, is critical today. Hundreds of donors have expressed their loyalty to Biochemistry and Iowa through gifts large and small. These gifts support graduate students and postdocs, new equipment purchases, seminar series and lectureships, and make it possible for us to attract and retain outstanding faculty members.

A tax-wise advisor, Anne encourages conversations with friends of the Department who are thinking about creating an endowment, either with an outright gift or by estate planning. Anne travels extensively, and would be happy to talk with friends of the department by phone (800-648-6973) or by email (barber@uifoundation.org) about contributions to existing funds or new initiatives, such as our campaign to endow graduate education.

Please see www.givetoiowa.org/biochemistry

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Ulowa Mentor: _____

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Iowa City, IA 52242-1109

Or email us at biochem@uiowa.edu with your news and accomplishments.

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

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