April 2013 Issue

Publication


New Faces

Dan Hall joined the business office on April 8 as the business manager (replacing Cheryl Bluett). He is responsible for the Department of Biochemistry, Office of Indiana State Chemist, Department of Entomology, and CERIS. Dan is from the Lafayette area graduating from Harrison High School. He has an A.S. in accounting from Indiana Business College, an A.S. in business administration from Indiana Wesleyan, and a B.S. in technical management from DeVry University. Dan has been with Purdue since 2008, and came to us from the University Development Office where he was an account assistant. His experiences prior to Purdue include accounting with the State of Indiana, financial sales with Regions Bank, and sales & service with Cintas. Dan is married and has two sons and enjoys music, playing guitar, and football.
Awards and Recognitions

Gabe Rangel, a senior in Biochemistry, has been awarded the 2013 G.A. Ross Award, which is presented annually to Purdue's outstanding senior man. The surprise announcement was made in Gabe’s BCHM 465 class. Special guests attending the announcement included President Mitch Daniels, Jay Akridge (Dean of Agriculture), Marcos Fernandez (Associate Dean and Director of Academic Programs In Agriculture), Danita Brown (Dean of Students), Jeremy Haire and Sara Ajagu (Award Committee Co-Chairs) along with Clint Chapple, Joe Ogas (Gabe’s advisor) and Scott Briggs (Gabe’s research supervisor). Gabe will graduate in May and pursue a Ph.D. at Harvard University in the fall.

Mark Hall’s project entitled, “Advanced proteomic application development and implementation with the AB Sciex 5600+ mass spectrometer” was selected as a Bindley Bioscience Center Fellows Project. Appointment to the Fellows program is for one year (07/01/2013-06/30/2014) and is part of the Bindley Research Fellows and Scholars Initiative (BRFSI), which seeks to engage the campus in the development, expansion and application of new science and engineering technologies, with an emphasis on creating new life science approaches. This award will provide him with an enhanced opportunity to work for the next year with the new MS instrument that he and his co-PIs acquired through the AB Sciex Young Investigators Award.

Beth Tran received a 2013-2014 PRF International Travel Grant in the amount of $1,000. The award will help fund her travel to Oxford, UK, in September to attend the EMBO Conference: ‘RNA 3' Ends: Mechanism and Biological Function in Eukaryotic Genomes’ at Brasenose College.
Biochemistry Spring Awards

In recognition of 40 years of her service to the Department of Biochemistry, the department announced a new award, the Linda Siersema Staff Excellence Award, and named Linda as the inaugural recipient. Linda is Supervisor of Biochemistry Stores.

Christie Eissler (Hall lab) is the 2013 recipient of the Arnold K. Balls Award for outstanding graduate student. This award is given annually to one of our graduate students who has demonstrated outstanding research potential, scholarliness and intellectual curiosity.

Ji Chen (Golden lab) is the 2013 recipient of the Henry A. Moses Award, established in 2008 by Biochemistry alumnus Dr. Bradley Sheares to honor fellow alumnus Dr. Henry Moses for his contributions to research, education and service. The goal of this award is to recognize a graduate student for an early publication. Ji is a third year student and is recognized for his 1st

Nina Serratore (Briggs lab) is the 2013 recipient of a one-year Purdue Research Foundation (PRF) Research Grant. These grants are provided by the College of Agriculture in conjunction with the Office of the Vice President for Research. The award recognizes Nina’s research and teaching accomplishments and will allow her to focus her efforts on the research projects that will form the basis of her doctoral dissertation.

Brendan Powers (Hall lab) was recognized as the recipient of the 2013 Hickory Stick Award for Outstanding Teaching Assistant, announced in the March newsletter. He attended the Celebration of Graduate Student Teachers banquet on April 23.

Nick Bonawitz (Chapple lab) is the 2013 recipient of the Senior Researcher Award. This award is given annually to recognize a postdoctoral fellow, research associate or staff scientist for outstanding research accomplishments in the lab. Nick is a senior research associate and is recognized for his exceptional contribution to the Chapple lab.
and in scientific research, but also because he entered a completely new area of research during his postdoctoral career and has excelled.

The Patrick C. Matchette Scholarship -
Patrick C. Matchette received a bachelor’s degree in Biochemistry from Purdue in 1958 and a DVM in 1966. He is a retired manager of Abbott Laboratories Agricultural Research and Development. He established this scholarship in 2000 for the benefit of Illinois students from the Greater Chicago region who are enrolled in the Department of Biochemistry at Purdue.

The 2013-2014 recipients are:
Elizabeth Bell, a junior from Woodridge, Illinois.
Emma Lendy, a freshman from Wheaton, Illinois.

The Edwin T. Mertz Memorial Scholarship -
Edwin T. Mertz was a professor of Biochemistry at Purdue from 1946-1976. He received honorary degrees from Purdue and the University of Montana and was elected to the National Academy of Sciences in 1975. In 2001, Ronald (BS 1956, PhD 1962) and Carolyn Chance provided a substantial gift to launch a campaign to establish the Edwin T. Mertz Memorial Scholarship for undergraduate students in Biochemistry.

The 2013-2014 recipients are (L-R):
Ryan Louer, a sophomore from West Milford, New Jersey
Iris Archer, a sophomore from Sherwood, Oregon
Madeline Powell, a freshman from Cromwell, Indiana
Monica Bomber, a junior from Bargersville, Indiana

**Not pictured:**
Kyle Robinson, a sophomore from Indianapolis, Indiana and Erin Nicklow, a junior Medina, Minnesota

Zygmunt Family Scholarship in Biochemistry - New this year. The scholarship was endowed by Dr. Deb Zygmunt and her mother, Mrs. Loretta Zygmunt in memory of Deb’s father Walter A. Zygmunt. He grew up in Calumet City, Indiana, and then attended the University of Illinois, receiving a Ph.D. after serving in WWII. He was employed at Merck, Mead Johnson and Bristol-Myers pharmaceuticals. Walt and Loretta resided in Evansville, Indiana. Deb Zygmunt received her B.S. in biochemistry from Purdue in 1977 and her M.D. from Indiana University.

The 2013-2014 recipients are (L-R):
Emily Erickson, a sophomore from Clarks Hill, Indiana
Moriah Massafaro, a junior from Brownsburg, Indiana
Alexis Zobel, a junior from Shelbyville, Indiana

**Not pictured:**
Kyle McCarthy, a senior from Zionsville, Indiana and Sam Schaffter, a junior from Roanoke, Indiana

The Ray W. Fuller Memorial Scholarship – Ray W. Fuller received his Ph.D. from the Department of Biochemistry at Purdue in 1961. As a graduate student, he worked in the lab of Dr. Edwin Mertz and served as a teaching assistant for BCHM 561. David Schroeder (B.S. 1962, Ph.D. 1968) had Ray Fuller as a teaching assistant and sought his advice about attending graduate school. Drs. Fuller and Schroeder each went on to have successful careers in the pharmaceutical industry. In 2007, Dr. Schroeder established this scholarship to honor Dr. Fuller for his contributions to
science and education.

The 2013-2014 recipient is: Misha Remy, a junior from Alexandria, Indiana.

Also new this year is the Dow AgroSciences Research Award. The funds to establish this award are part of Dow’s Aid to Education program. Two students were selected for the award, which includes $500 to be used to support the students’ research efforts in the lab.

The 2013-2014 recipients are:

Lotti Brose, a senior from Avon, Indiana, has been working in the Ogas Lab for four years; and Kayleigh Nyffeler, a senior from Fort Wayne, Indiana, has been working in the Kappock Lab for the past three years.

**Outstanding Students in Biochemistry**

Freshman Erin Morrison from Belle Plaine, Minnesota, is off to a great start at Purdue, making the Dean’s List last fall. She is the recipient of numerous scholarships including the Presidential Scholarship at Purdue. Erin has become involved in several clubs including Biochemistry Club, Purdue Block and Bridle Club, and Purdue Collegiate 4-H and is a floor senator for the Wiley Excalibur Club. She is serving this year on the National Beef Ambassador Team (2012-2013) and just completed a year on the Minnesota Junior Shorthorn Association Board of Directors.

Sophomore Emily Erickson from Clarks Hill, Indiana, was involved in research while still in high school, working in a nuclear engineering lab as a junior and a botany and plant pathology lab as a senior. She has been working in Karen Plaut’s lab since 2011. Emily is a member of the Biochemistry Club, the Dairy
Club, and this year founded the Purdue Goat Club. She is a member of the Purdue Philharmonic Orchestra and recently was named principal viola player. This summer, Emily will intern at the National Institutes of Health in the mammary stem cell biology section, where researchers are developing biological models to investigate breast cancer. We are proud to announce Emily has also been recognized as the **Outstanding Sophomore in the College of Agriculture** for 2012-13.

Junior Erin Nicklow from Medina, Minnesota, has held several leadership positions in Alpha Xi Delta Sorority, most recently serving as Alumnae Relations Chair. Erin has been the Biochemistry Club’s outreach co-coordinator this year and will take over as outreach chair next year. Erin is a Presidential Scholar and member of the Dean’s Scholars Honors Program. She has been working in the Ogas lab for the past year. Erin participated in the Undergraduate Research Poster Symposium recently where her poster received the Honors College Award for the Life Sciences category. Erin also was recently tapped as a new member of Purdue University’s Chapter of Mortar Board.

Senior Gabe Rangel from Indianapolis, spent two summers working in research at the IU Simon Cancer Center. He joined the Briggs Lab as a freshman to get an early start on his research at Purdue. During summer 2011, Gabe was selected to participate in HHMI EXROP at the University of Maryland School of Medicine in the Center for Vaccine Development, Malaria Group. Last summer, he participated in the summer program in biological sciences at the Harvard School of Public Health, where he helped develop an imaging protocol for characterizing morphological changes that occur during maturation of the malaria parasite. Gabe has served the last two years as coordinator of Biochemistry Club Outreach. He received the prestigious Barry M. Goldwater Scholarship and Howard Hughes Medical Institute Gilliam Fellowship for Advanced Study. Gabe was also recognized as the **Outstanding Senior in the College of Agriculture** for 2012-13. Gabe is the first student to be named the College of Agriculture’s outstanding student each of his four years at Purdue.

**Graduate Student News**
Jiazhen (Roy) Zhang (Tao lab) will be transferring out of the biochemistry Ph.D. program and moving to Scotland to attend the University of Dundee and pursue his Ph.D. in the MRC Protein Phosphorylation Unit. His last day with us has not been determined.

Hongji Gui (Dudareva lab) has decided to switch to the Horticulture and Landscape Architecture program and receive a M.S. degree. She will transfer from Natalia Dudareva’s lab to Jian-Kang Zhu effective June 1.

Marwa El Hindawy (Chapple lab) has decided to switch to the Food Science Ph.D. program and will join Dr. Bruce Hamaker’s lab effective June 1.

Amjad Nasir (Forney lab) will be the Purdue Graduate Student Government (PGSG) Senator representing the Department of Biochemistry for 2013-2014 academic year. For more information about the PGSG, you may visit their website, http://web.ics.purdue.edu/~pgsg/.

**Permanent Lab Assignments**

Jingqun Ma – Weake lab  
Sander Roy – Gimble lab
Undergraduate News

Biochemistry Junior Erin Nicklow was recently tapped as a new member of Purdue University’s Barbara Cook Chapter of Mortar Board. As a national honor society for senior students, Mortar Board focuses on scholarship, leadership, and service. The Purdue chapter annually selects 40 of the university’s top rising seniors for membership.

Biochemistry senior Greg Forney won second place in the student division of Purdue University’s Elevator Pitch Competition hosted by the Certificate in Entrepreneurship and Innovation Program. The competition gives participants two minutes to describe the value of their entrepreneurial business venture to a panel of judges. Greg pitched a vending machine that purifies tap water and sells refills to consumers who provide their own reusable bottle. He has been working on a business plan for this product for the last year and a half. Greg lead a team of 3 Purdue students to the semi-finals of the Burton D. Morgan Business Plan Competition around this idea earlier this year.
Biochemistry Junior Mercedes LaLand was among the 17 students in the MANRRS-Purdue Chapter who attended the MANRRS 2013 National Conference on March 21-23 in Sacramento, California. Students worked hard to raise money for their hotel stay at the conference and competed in an essay writing contest, undergraduate research, or public speaking. Mercedes participated in the Competitive Undergraduate Division I (for biological, chemical, and physical sciences) Research Poster Contest.

**Spring Fest**

The Biochemistry Club had a great Spring Fest this year! Throughout the event on April 13 and 14 over 700 community youth came through the lab to make lava lamps, learn about oobleck, design their own UV bead jewelry, squeeze out gummy worms and have a blast playing with the Hollywood snow! The students and parents alike really enjoyed the periodic demonstrations of elephant toothpaste and boo bubbles. Dean Akridge and President Daniels even stopped by and had a great time interacting with the kids, parents and biochemistry students. This successful event was made possible by the incredibly hard work put forward by many members of the Biochemistry Club, including Kayleigh Nyffeler, Lotti Brose, Will Beyer, Erin Nicklow, Gabe Rangel, Mitch D’Aloia, Kyle Robinson, Anna Trotter, Corrine Wilschke, Cody Schnur, Monica Bomber, Cameron Holzmeyer, Christina Smith, Caoilin Hoctor and Ryan Louer.

**BCHM 490 Poster Session**

22 undergraduates presented their research to faculty and students during this year’s BCHM 490 Senior Poster Session on April 22. This is part of their capstone project, required for graduation from the College of Agriculture, which consists of three credits of BCHM 498 or 499 undergraduate research plus the semester-long BCHM 490 senior seminar, in which they learn how research is presented.

**Undergraduate Research Poster Symposium**

The annual Undergraduate Research Poster Symposium was held April 26 in the Purdue Memorial Union ballrooms. Eight biochemistry students presented posters at the event: Alex Kosiak (Kirchmaier Lab), Erin Nicklow (Ogas Lab), Kayleigh Nyffeler (Kappock Lab), Jessica Gabbard (Kirchmaier Lab), Hannah Pizzato (Broyles Lab), Gabe Rangel (Briggs Lab), Emily Erickson (Plaut Lab) and Cody Schnur (Lescun, VM large animal hospital).
Erin Nicklow received the Honors College Award for the Life Sciences category for her poster “Analysis of domain deletion alleles of the PICKLE chromatin remodeling factor”.

World Food Prize Youth Institute

On April 4-5, 2013, Purdue hosted the World Food Prize Youth Institute. This is an event for high school students who write an essay on a key global issue concerning food security and agriculture, focusing on a developing country of their choice. At the event, each student gives a short presentation to Purdue experts. Based on the essay and presentation, 5 students are selected as delegates to represent Indiana at the three-day Global Youth Institute held in conjunction with the World Food Prize events in Des Moines, Iowa.

While on campus, students participated in several workshops including one called “Food and Mood” led by Orla Hart, coordinator of biochemistry teaching laboratories.

Alumni News

Rachel Schluttenhofer (B.S. 2011), currently a graduate student in the Department of Biological Sciences at the University of Notre Dame, has received a NSF graduate research fellowship. The National Science Foundation's Graduate Research Fellowship Program helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The
program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions.

Axelrod Lecture
Dr. Fred Winston from the Department of Genetics at Harvard Medical School presented this year’s Bernard Axelrod Lectures on March 26 and 27. Winston grew up in Cleveland, Ohio and has been a faculty member at Harvard since 1983. He received a B.S. from the University of Chicago and Ph.D. from the Massachusetts Institute of Technology. Winston completed his postdoctoral work with Professor Gerald Fink at Cornell and MIT. His honors include election as a fellow of the American Academy of Microbiology and the American Association for the Advancement of Science, and election to the American Academy of Arts and Sciences. Winston has won several teaching awards at Harvard and in 2009 he served as president of the Genetics Society of America.

Purdue Center for Cancer Research the Challenge; 5K Run/Walk
The Purdue Challenge is a walk/run event that started in 2008 as a way to bring together the Purdue University community to combat cancer and support cancer research. The Challenge is open to runners and walkers of all ages and abilities that share a common goal: Fight Cancer! All money raised supports the research happening at the Purdue Center for Cancer Research. The Challenge also represents support and respect for all that have been impacted by cancer.

This year, the biochemistry department had several participants:

**Standing (L-R)**: Hongji Gui, Cheng Liu (Yang Li’s husband), Justine Arrington, Lingfei Zeng, Li Yang, Michael Melesse and girlfriend Veronica Vergara, Anton Iliuk, Keerthi Jayasundra  
**Front Row (L-R)**: Meng-Chieh (Claire) Chen, Aurelie Chuong, Andy Tao and wife Vicky
Going the Extra Mile

Missed in February news: Clint Chapple travelled to Potomac, MD, where he attended the 2013 USDA-DOE Genomic Science Annual Contractor-Grantee Meeting on February 24.

Xiaoqi Liu travelled to Washington, DC, where he attended an American Association for Cancer Research (AACR) Annual Meeting on April 7.

Clint Chapple travelled to Jackson, MS, where he participated in a NSF site visit at Jackson State University on April 8.

Barb Golden travelled to Ames, IA, where she presented a seminar entitled, “Two distinct catalytic strategies in the HDV ribozyme cleavage reaction” at Iowa State University on March 27. She also travelled to New Orleans, LA, where she presented a talk entitled, “Identification of the catalytic magnesium ion in the HDV Ribozyme” on April 7.

Jim Forney, and his graduate students Amjad Nasir and Qianyi Yang travelled to Peoria, IL, where Qianyi and Amjad presented a poster entitled, “Developmental regulation of SUMOylation during conjugation in Tetrahymena” at Bradley University on April 27.

Safety Corner by Karen Rodkey

TORNADO DRILL

On March 27, 2013, Purdue’s West Lafayette campus performed a severe weather drill. All occupants of the BCHM building were asked to practice our emergency weather procedures and go to the basement. The Department of Biochemistry developed a ‘calling tree’ process to enhance Purdue’s warning system in order to alert those who may be away from their phone to see a .txt message, do not have access to a radio, or don’t have windows to watch the weather approach. The drill was a success and these practice runs help ensure that the process will work smoothly in a real weather emergency. The weather emergency procedure can be found on our website, https://ag.purdue.edu/biochem/department/Safety%20Pdfs/Weather%20Emergency%20Warning%20Procedures%202013.pdf.
Strictly Personal

Mark and Hana Hall both participated in the Boiler Sprint Triathlon on April 6. According to Jim Forney who witnessed the event, "their performance was inspirational".

Birthdays

Uma Aryal
Wenjie Zeng
Yueping Zhang

Upcoming Events

April 29 – May 4   FINAL EXAMS

May 11   COMMENCEMENT
Elliot Hall of Music
9:30 a.m. (Division II)

May 23   SPRING FLING
Faculty, Staff, Grad Staff, & Retirees
Appreciation Day
France A. Córdova Recreational Sports Center