

School of Health Sciences • Purdue University • Spring 2014



Wei Zheng, Ph.D.
Head

Dear Friends of the School of Health Sciences:

This year we had a historically long and harsh winter in West Lafayette, but it didn't slow down our faculty and students' pace in achieving their successes. In an education and research-emphasizing school, the achievements that make us most proud are our students' quality performance and faculty's worldwide recognition.

We are very proud that Ms. **Christina B. Burke**, a senior with a concentration in pre-medicine, is one of the two 2014 recipients of the Flora Roberts Award for Outstanding Senior Woman at Purdue University. The Flora Roberts Award has a long history and was first given in 1927, to commemorate "the ideal Purdue woman" who is outstanding in character, citizenship, leadership, and scholarship. The names of Roberts winners are inscribed on an obelisk at the northeast corner of the Purdue Mall. Christina is the first in our School as well as in the College to win this prestigious award!

Along the same line of recognition of our students' quality, I am glad to share with you that for 2014-2015 academic year, our school leads the College again and has 76 admitted students who have been awarded with Purdue's Presidential, Trustee and Emerging Leader Scholarships. The total award amounts to more than \$600,000 in committed dollar values. One can surely sense the good quality in our student pool. In addition, the Fall enrollment in our school has, for the first time since 2012, started to climb. I would like to thank Ms. **Truda Strange**, the HSCI Director of Student Services, for her diligent work in leading efforts to increase student enrollment. I also applaud our faculty for their participation in writing personal letters to students, touring their research labs for prospective students and their parents, and most significantly, mentoring our undergraduate students to enrich their experience on Purdue campus. You will find more stories on our students' successes on following pages.

A recent commentary in New York Time (May 7th) emphasizes that "in college, nurturing matters". More important to an educational unit are those who are willing to provide nurturing and services to students. Mr. **Dave Tate** is such a good example. Dave retired last week after more than 34 years of services to the School and Purdue.

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EARLY CAREER AWARD WINNER

Purdue has named Dr. Jennifer Freeman, Associate Professor, as one of the three inaugural recipients of the "Exceptional Early Career Award".

The Exceptional Early Career Award (\$5,000) highlights the challenging but rewarding work of faculty who dedicate time to student learning while still committing to the research and scholarship requirements of the tenure track. One of the purposes of this award is to spur the excellent instructors to garner future accolades as teachers and to serve as guides for undergraduate education on Purdue campus.

Dr. Freeman received this note from Thomas E. Spurgeon, Chairman, Board of Trustees:

"The Board of Trustees congratulates you on receiving the university's 2014 Exceptional Career Award. We are pleased that your outstanding commitment to the success of our students has been recognized with this honor, and we wish you continued success."

The award announcement usually comes as a surprise to recipients (and faculty as well), either in their teaching or in public gathering events. David Nelson, Associate Director of Purdue's Center for Instructional Excellence, came to the School's Weekly afternoon Seminar on April 1st and presented the award and a bundle of Purdue balloons to Jennifer.



GREETINGS FROM THE OFFICE OF STUDENT SERVICES



Truda Strange, Director
Office of Student Services

The Office of Student Services has completed another successful year. It seems like just yesterday we began a new school year by welcoming the class of 2018 and upper classman back to campus. Fall semester came to a close too quickly, the Holidays were celebrated, and we began spring semester. I think you will all agree with me that this was the winter that went on forever and ever. We endured the tragic and senseless act of violence that resulted in the loss of fellow Boilermaker, Andrew Boldt. This was a heart-breaking day for Boiler Nation.

Lisa Hilliard, Director of the Medical Laboratory Science program had an extremely busy semester teaching three courses – Introduction to Medical Laboratory Science, Immunology, and Medical Terminology. She embraced the challenge of redesigning these courses with a spirit of enthusiasm, tenacity, and a lot of late nights. She transformed these courses from rote memorization of terms to real-life application within the spectrum of human healthcare. Rosemary Ricci, academic advisor and coordinator of allied health, continued her legacy of providing accurate and timely information regarding requirements into professional programs - eight to be exact. She has a true passion for advising this student population. She serves as a mentor to students outside the four walls of her office through advising three student organizations.

Very soon, we will be welcoming new Boilermakers to HSCI during Summer Transition and Registration (STAR). We look forward to a new beginning and the energy these new students will bring to our School and University. It will truly be an exciting time.

Hail Purdue!

Truda Strange, Director, HSCI Office of Student Services

MESSAGE FROM THE HEAD (CON'T)

He is a man who cares a great deal about our students and has always made their need his top priority. At last Friday's party, more than 70 people came to say goodbye, including Purdue's football coaches, his past students, friends and family members. We thank Dave for his life-long contribution and hope he enjoys many years of peace and happiness.

The past academic year was a wonderful, fulfilling year for Dr. **Jennifer Freeman**. She has been successfully promoted to the tenured Associate Professor. A tenure-ship is perhaps one small addition to Purdue's large tenured faculty body, but it is a gigantic leap in a faculty's career. Jennifer well deserves this promotion, not only for her research achievements but also for her contributions in graduate and undergraduate education. You can read her story on the cover page.

Last year, we welcomed Dr. **Candace Tsai** and Dr. **Ellen Wells** to our faculty. Candace is a recognized researcher in occupational safety assessment of nanomaterials. She brings with her a strong engineering background to our occupational health (a.k.a. Industrial Hygiene) program. Ellen is an epidemiologist working in the cross fields of environmental and occupational health. Less than a year later, both faculty have already successfully taught their own courses, developed collaborations, and started to publish their discoveries. It is truly amazing to see that Candace has already brought in sizable extramural research funds for her scholarly research, and meanwhile is finishing up her first book on exposure assessment and safety control of nanomaterials! Both professors are on the fast track to their worldwide recognition.

This year's Distinguished Young Alumni Award was bestowed to Dr. **David Carlson**. David graduated from our doctoral program in medical physics in 2006 and is now an Assistant Professor at Yale University. He received a Radiation Research Editor's Award by the Board of Editors of Radiation Research in 2008. You can read more about David's achievements on page 11. I vividly remember David and his class, including Jason Harris in health physics, Dallas Cowan and Jill Harvilchuck in toxicology, Judy James and Tim Greist in medical physics, and Mark Wilson in industrial hygiene along with many others. It is indeed my hope that we can keep in close touch, and guys, if you have the chance, please come and visit us!

Looking to the future, there are many opportunities as well as challenges ahead of us. We have recently obtained more than 5,000 square-feet of space for wet-lab, student/postdoctoral study rooms, and faculty offices in the Lilly building. The proximity to biology researchers, Vet-Med School and other Purdue Research Foundation centers will likely facilitate collaboration and productivity. Yet, the shortage in faculty lines in radiological health sciences and industrial hygiene is now taking its toll on these two nationally accredited, well-recognized programs. Demand in additional faculty lines has become an urgent matter not by virtue of our desire, but because the required curricula and critical faculty mass are of such a fundamental nature to our mandated missions for our stakeholders. I will work with our faculty and my superiors to achieve this goal. In the meantime, I hope you will do your part to support the School by participation, donation, employment opportunity, or simply spreading the positive message around. Together, we will prepare our students for great jobs, better lives, and closer attachment to those of us on campus!

Enjoy the late spring and have a pleasant summer!

Hail Purdue!

Wei Zheng, Professor and Head

RETIRING COUPLE WRITES LOVE LETTER TO PURDUE COMMUNITY

Before sunrise in the fall of 1964, on the Sunday before the first day of classes, I was roused from my bed and herded into the dining area of Cary East to learn some of the traditions about Purdue, including the lyrics to some Purdue songs. In the fall of 1965, my wife, Maureen, had the same experience in Warren Hall.

Little did we realize then that our relationship with this magnificent institution would span more than a combined 80 years and would develop into a life-long love affair. From the Hail Purdue lyrics "Ever grateful, ever true," and later in the stanza, "Of the days we've spent with you," these simple words, so thoughtful and filled with wonder, require time spent at Purdue to fully comprehend. And as we pursued our degrees, graduated and became employees, other lyrics became part of our life and our gratitude: "Cherished in memory by all her Sons and Daughters true." We are so deeply grateful for what we continue to experience in this place we call home. How do you thank all of the former classmates, fraternity brothers, students, club members, coaches, athletes, colleagues and administrators for allowing us to live our dream well beyond what two naïve small-town kids could have thought possible? Yet you did. You gave us hope, you challenged us and mostly, you believed in us even when we began to lose belief in ourselves. And so, those words from Hail Purdue are not simply words, they are a way of life. They are an embodiment of what it means to be Purdue men and women.

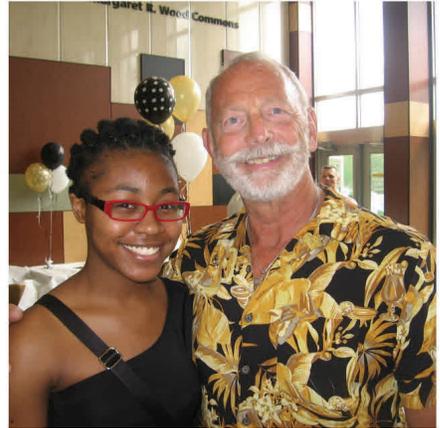
And as we come to the final chapter in our time here at this hallowed place, this place so "serene and grand," we want to thank you for giving us these cherished memories.

Ever grateful and ever true,
David and Maureen Tate



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The Exponent Online
Posted: Friday, May 2, 2014
Kun Xu | Staff Photographer

A reception was held on May 9th to thank Dave for his 34 years of dedication and service to the students in the School of Health Sciences. *Best of luck to you in your retirement!*



SPRING 2014 GRADUATES

Courtney M. Baird	Jarod K. Gearhart	Ah Young Park	Olivia F. Smith
Scott A. Baro	Danielle C. Goeman	Emily Peppin	Erin R. Sondgerath
Marcus T. Bentley	Tyler M. Gress	Mikelle A. Rabuck	Courtney A. Sperry
Michelle D. Bollinger	Karolyn A. Grunawalt	Jenna R. Ramsey	Megan D. Staats
Ashlee M. Booth	Logan P. Hall	Colleen M. Regan	Sylvia F. Tawfik
Katherine E. Bridgeman	Erin E. Harpster	Lindsey K. Reprogle	Julia C. Thrapp
Christina B. Burke	Alyssa E. Hollowell	Kelsey M. Rosswurm	Alycia R. Voskuhl
Mary M. Byelick	Rebecca M. Houser	Alison R. Roth	Hannah E. Wheaton
Jospeh V. Calderaro	Erica D. Hunter	Elizabeth A. Rowland	Blair M. White
Christine E. Callahan	Victor Jung-Yang	Anneliese N. Rupp	Jessalynn K. White
Pin Chen Chew	Cassandra N. Kelly	Geoffrey A. Ryan	Emily N. Williams
Alyssa Choi	Mallory D. Lancaster	Mohammad H. Sattar	Andrew F. Wiseman
Tasha M. Cole	Katrina M. Larson	Betsey E. Schlehuser	Hannah F. Womack
Taylor M. Davis-Cannon	Anna M. Lenkey	Kelly E. Schlotman	Yeung Ching Y. Wong
Douglas R. Day	David J. Manring	Adam J. Schmidler	Yadi Xu
Diana Q. Doan	Mary G. McInerney	Bryan D. Schmidt	Taeyi You
Hadassah A. Donkor	Tanner L. McKinley	Nicholas W. Seager	Megan M. Yurchik
Kayley D. Dotson	Dustin T. Mobley	Michael S. Sesterhenn	Patricia M. Ziccarelli
Madelyn P. Duvall	Patrick M. Mullen	Alexander C. Slaten	
Kimberly A. Erickson	Lenaya L. Navarro	Kendall P. Smith	

Congratulations

2014 Graduates



"You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose. You're on your own. And you know what you know. And YOU are the one who'll decide where to go..." "So be sure when you step, Step with care and great tact. And remember that life's A Great Balancing Act. And will you succeed? Yes! You will, indeed! (98 and percent guaranteed) Kid, you'll move mountains."

Dr. Seuss, Oh, The Places You'll Go!

GRADUATION RECEPTION

The College of Health and Human Sciences hosted a graduation reception on Wednesday, April 29. Dean Ladisch congratulated the graduates and wished them well with their future endeavors. Below are pictures of some of the Health Sciences Graduates who were able to attend.



Stephanie Lachowicz, Dr. Zheng and Hannah Wheaton



Yadi Xu



Madelyn Duvall and Anna Lenkey



Ah Young Park



Some HHS students with Christina Burke, at far right



Truda Strange and Nicholas Seager

2014 INDIANAPOLIS 500 PRINCESSES

Congratulations to Danielle Goeman (left) and Calin Cochran (right). Both of these ladies have been selected as one of the 2014 Indianapolis 500 Princesses. Danielle is from Carmel, Indiana and is majoring in General Health Sciences with a Pre-Optometry concentration. Calin is from Frankfort, Indiana and is majoring in General Health Sciences with a concentration in Pre-Physician Assistant.



BEYOND GRADUATION ~ EDUCATION & EMPLOYMENT

Katie Bridgeman

Physical Therapy School
IUPUI

Christina Burke

Doctor of Osteopathic Medicine
Campbell

Jeremy Chesher

Master's in Public Health
IUPUI

Tasha Cole

Accelerated Nursing
Indiana Wesleyan

Kayley Dotson

Master's in Public Health
East Tennessee State

Madelyn Duvall

Public Health
The Ohio State University

Kimberly Erickson

Physician's Assistant
Alderson Broaddus University

Brandon Evans

Physical Therapy School
Western Kentucky

Jarod Gearhart

Dentistry
Indiana University

Danielle Goeman

Accelerated Nursing
Marian University

Erin Harpster

Pharmacy
Purdue or University of Minnesota

Erica Hauter

Doctorate of Physical Therapy
Bellarmine University

Cassie Kelly

Medical School
IU School of Medicine

Mallory Lancaster

Systems Integration Analyst
Accenture

Anna Lenkey

Accelerated Nursing Program
Purdue University

Mary McInerney

Teach for America, Dallas, TX

Tanner McKinley

Dentistry
Indiana University

Emily Peppin

Occupational Therapy School
Governor's State or IUPUI

Kirsten Ross

Environmental Health and Safety
Officer-Learning Development Program
Eaton Corporation

Kelsey Rosswurm

Occupational Therapy, IUPUI

Kelly Schlotman

Medical School
IU School of Medicine

Allison Shoemaker

Environmental Health and Safety
Specialist for Physical Rehab Network
Google

Olivia Smith

Doctor of Osteopathic Medicine
Marian University

Courtney Sperry

Physician Assistant
Rush University

Hannah Wheaton

Physician Assistant
Rosalind Franklin

Blaire White

Pharmacy
University of Missouri-Kansas City

Emily Williams

Physician Assistant, Butler University

Andrew Wiseman

Physical Therapy, IUPUI

Samantha Ziccardi

Health and Safety Officer
Flint Hills Resources

Patty Zicarelli

Optometry School
Illinois College of Optometry

"Congratulations and All the Best to Our
MLAB Students selected for
Clinicals Fall 2014

Bradley Bales
Samantha Engle
Adrianna Myers
Matthew Whitaker

We are proud of your achievement and to
have been of support and service to you
along the way!"

Congratulations on your success!

S.H.O.T.S. - STUDENTS HELPING OTHERS THROUGH SERVICE

Under the leadership of Emily Peppin, the 60 plus members of SHOTS were involved in community service all around the greater Lafayette community. SHOTS require students to complete 25 hours of volunteering throughout the year. The students logged their hours on boilerlink.purdue.edu after each volunteering session. The members volunteered at the Indiana Veteran's Home, the Purdue Village Pre-school, IU Arnett Hospital, Natalie's Second Chance Animal Shelter, and St. Anne's Soup Kitchen. The group also worked together to form a team for the Winterization and Boiler Blast service projects!

A new activity that was added this year was the donation of books and toys for Miracles Happen that benefited children who were in the Indianapolis children hospitals during the Christmas season. These activities have allowed SHOTS to become a successful club over this past year. As a whole, SHOTS members have volunteered hundreds of hours this year.

We have continuously added service projects and other volunteer settings in order to provide members with several opportunities to volunteer on Purdue's campus and throughout Lafayette.

We hope to continue the positive impact on the community in the future!



The S.H.O.T.S. BOILER BLAST Group!



The S.H.O.T.S. Winterization Group!

LAMBDA TAU

This year has been a whirlwind for the Health Sciences Medical Laboratory Honorary – Lambda Tau. As the new advisor to the club, I was welcomed by an energetic group of future scientists. It is the goal of this organization to provide students interested in medical laboratory science a means to gain a better understanding of the diverse career opportunities within this profession, peer camaraderie and mentorship. This year though we are most proud of our support efforts for those struggling in the West Lafayette/Lafayette community.

Our club decided to reach out to the Lafayette Transitional Housing Center by assembling and hand delivering holiday stockings full of essentials like socks, portable snacks, playing cards ... We enjoyed this interaction so much that we decided to extend our involvement into the Spring. We went to the shelter on April 29th with boxes full of food and a menu to prepare for dinner.

Although we benefited from the many other club activities such as former program graduate presentations, corporate guests, etc.; this dinner was truly the highlight of our year.



HEALTH SCIENCES AWARD PROGRAM



Celebrating Your Success!



BARBARA YOUNG AWARD

ADRIANNA MYERS

BOOTSMA DISTINGUISHED MEDICAL LABORATORY SCIENCES SCHOLARSHIP

SHAINA LOGEMANN

DISTINGUISHED HEALTH SCIENCES STUDENT AWARD

KELLY SCHLOTMAN

JEFF KIZER AWARD

GRAHAM OWEN

ELI LILLY AND COMPANY HEALTH PHYSICS AWARD

VASIN DUMRONGPRECHACHAN

ROBERT R. LANDOLT RADIOLOGICAL HEALTH SCHOLARSHIP

ALISON ROTH

SERVICE AWARD

ANNELIESE RUPP

RICHARD VETTER SCHOLARSHIP

HAYDEN HAMBY

THOMAS WIDNER AWARD

MACKENZIE HILL

**PAUL ZIEMER AWARD FOR OUTSTANDING FRESHMAN SCHOLASTIC
PERFORMANCE SERVICE AWARD**

KENDAL WEGER

ELI LILLY AND COMPANY INDUSTRIAL HYGIENE AWARD

Josh Horton

GRADUATE SERVICE AWARD

Ruoyun Ma

WAYNE KESSLER GRADUATE STUDENT AWARD

SHAMALI DHARDADHIKARI

THE ANNUAL HEALTH SCIENCES GRADUATION & AWARDS SPRING BANQUET

Congratulations to our award winners who were honored at our Annual Health Sciences Graduation and Awards Banquet on April 25, 2014 at the Purdue Memorial Union. We are so proud of each of you!



Jennifer Freeman and Kelly Schlotman



Adrianna Myers and Lisa Hilliard



Dave Tate and Shaina Logemann



Ellen Wells and MacKenzie Hill



Anneliese Rupp and Truda Strange



Linda Nie and Hayden Hamby



Vasin Dumrongprechachan and Stan Hampton



Truda Strange and Kendal Weger



Keith Stantz and Alison Roth



Frank Rosenthal and Graham Owen



HHS OUTSTANDING SENIOR

Christina Burke was selected as the 2014 HHS Outstanding Senior representing the Health Sciences Department.

She was honored at a banquet on April 29th.

Congratulations Christina!

GRADUATE STUDENT AWARD WINNERS



Dr. Dydak and Shalmali Dharmadhikari



Josh Horton and Stan Hampton



Dr. Cannon and Ruoyun Ma

2014 COMMITTEE FOR EDUCATION OF TEACHING ASSISTANTS (CETA) AWARD



Congratulations to Stephanie O'Neal, the 2014 Committee for Education of Teaching Assistants (CETA) Award winner.

The mission of this program is to enhance the excellence of education at Purdue University by providing opportunities for graduate students to experience and understand all aspects of instruction in higher education. Stephanie was honored at a University-wide reception in April.

BLACK GRADUATE STUDENT ASSOCIATION (BGSA) BANQUET



Chris Bates and his mentor Dr. Zheng in 2014 BGSA banquet

Excellence in Teaching Award

Congratulations to Dr. Keith Stantz on being selected as the 2014 the recipient of the Health Sciences Robert R. Landolt Award for Excellence in Teaching.

Criteria for the award include: Clarity of Presentation, Creating Student Interest in the Subject, Intellectual Challenge to the Students, Development of Logical Approaches and Critical Evaluation.

Dr. Stantz was honored at the Faculty Awards Convocation in April.

Congratulations - Keep up the great work!



Dr. Wei Zheng and Dr. Keith Stantz

OUTSTANDING YOUNG ALUMNI - DAVID J. CARLSON



David J. Carlson, Ph.D., DABR

The School of Health Sciences is proud to announce the recipient of the 2014 Outstanding Young Alumni Award: David J. Carlson., A 2006 graduate of the School of Health Sciences. Dr. Carlson was nominated for this award by two of our previous Outstanding Young Alumni Awardees, Dr. Richard Vetter and Dr. Jason Harris.

What follows was submitted as part of the nomination written by Drs. Vetter and Harris:

"He clearly is recognized nationally for his research, his teaching skills, and his service to the profession, which is worthy of significant recognition, especially considering his young age. We believe that he is worthy of the School of Health Sciences Young Alumni Award, and we strongly and enthusiastically recommend him for this award."

Dr. Carlson serves as Assistant Professor on the physics faculty in the Department of Therapeutic Radiology at Yale University New Haven Hospital. His responsibilities include direct patient care as well as teaching, research, and technological innovation aimed at ensuring high-quality radiotherapy for cancer patients. His clinical activities focus on quality assurance of radiotherapy treatment planning and delivery to improve patient care. He actively participates in the education of radiation oncology residents, physics residents, and students at Yale New Haven Hospital and Yale School of Medicine, providing didactic lectures, personalized teaching sessions, and mentorship. Dr. Carlson's research activities include clinical projects, e.g., the implementation of new technology and translational multi-disciplinary collaborations with physicians and biologists. For example he is working on the development of non-invasive molecular imaging tools to quantify tumor hypoxia and the implementation of biological optimization in photon and heavy ion radiotherapy.

Dr. Carlson's has become active in several professional organizations and currently serves on several national committees and subcommittees and a task group. He serves as a peer-reviewer for the Department of Defense Lung Cancer Research Program and for several scientific journals. He has achieved specialty board certification in Radiation Oncology Physics by the American Board of Radiology and has received a number of awards detailed on his c.v.

Dr. Carlson has already established a national reputation in radiation oncology research as evidenced by his list of research grants, peer-reviewed publications and conference proceedings. Dr. Carlson has also made a number of presentations at national scientific meetings and at prestigious institutions such as Harvard Medical School, University of Texas MD Anderson Cancer Center, University of Washington Cancer Center, Fox Chase Cancer Center, Massachusetts General Hospital, and German Cancer Research Center in Heidelberg.

Dr. Carlson's activity at the national and international level is strong testimony to the high respect paid to him by scholars both inside and outside his own institution. Clearly, Dr. Carlson is highly regarded both inside and outside Yale New Haven Hospital for his important clinical work and for his contributions to education, to the literature, to scientific committees and ultimately to the health of the nation. He clearly is recognized nationally for his research, his teaching skills, and his service to the profession, which is worthy of significant recognition, especially considering his young age.

Dr. Carlson lives in New Haven, CT with his wife and keep busy taking care of their 3 daughters—all under 5 years of age.



David Carlson and Jim Schweitzer

*Congratulations David!
It was great to have you back on campus!*

FACULTY ACCOMPLISHMENTS



Dr. **Jason Cannon** received a Showalter Award (\$62,500, 7/01/2013 – 6/30/2014) for his proposal entitled, "Mechanisms of PhIP-mediated Neurotoxicity and Relevance to Parkinson's Disease." Jason's project focuses on a specific dietary factor as a potential causative agent in the etiology of Parkinson's disease and has the potential to establish a new model for Parkinson's disease. This seeding fund will allow Jason to generate more preliminary data, leading to an

ultimate larger NIH fund.



Dr. **Candace Tsai** received \$239,000 award from the International Carbon Black Association (07/01/2013 – 06/30/2015) for her research project on characterization of nanoparticle exposure and evaluation of control methods in general laboratories. This grant award was selected from a highly competitive pool of applications and went through the Industry Board review with external scientific reviewers. The research will allow Candace to develop effective means for better control of occupational

exposure to nanoparticles.



Dr. **Ulrike Dydak** received a new NIH/NINDS RO1 grant entitled "in Vivo Quantification of Cerebellar GABA and NAA in Essential Tremor" (PI: Elan Louis of Columbia University), in which Dr. Ulrike Dydak contributes significantly as a co-investigator (total award \$2,672,748, 9/15/2013-8/31/2018).

The project uses in vivo magnetic resonance spectroscopy (MRS) to quantify GABA levels in the cerebellar dentate and NAA in the cerebellar cortex in essential tremor cases vs. controls as biomarkers of

Purkinje cell loss, both in cross-sectional as well as longitudinal studies. Dr. Dydak will receive a total of \$598,122 to support her crews for the next five years.



Dr. **Ellen Wells** – Awarded on 10/22/2013 by a pilot project fund, Environmental Health Watch, for \$14,078 with a title "Remote Monitoring of Home Air Quality for Comparison of Energy" (8/12/2013 – 10/30/2013)



Dr. **Freeman** – Awarded on 9/25/2013 – Purdue Category I instrumental support (\$150,967) titled "Environmental and Health Assessment of Perfluorinated compound" (5/1/2013 – 5/31/2016). She received a new research award of \$450,000 (09/04/2013-08/31/2015) from NIH/NIEHS for her R15 grant proposal entitled "Molecular biomarkers of exposure to an endocrine disrupting herbicide". Jennifer's research will explore whether the epigenetic mechanisms

underlie the alteration in the endocrine axis due to developmental exposure to atrazine, which is a widely used herbicide in agriculture industry.



Dr. **Wei Zheng** – Awarded on 7/25/13 – Subcontract to Columbia University/NIH (\$63,353) at Year 13 for a project titled "Environmental Epidemiology of Essential Tremor" and also awarded on 2/24/2014 by NIH/NIEHS RO1 grant (\$328,292) as a PI to investigate manganese-copper interaction at blood-brain interface as an etiopathological mechanism in manganese-induced parkinsonian disorders. During his sabbatical leave in China, Dr.

Zheng worked on human cohorts to explore the possibility of lead exposure in Alzheimer's disease.

STUDENT SUCCESS IN RESEARCH AND IN THE LABORATORY

Dr. Jason Cannon's Laboratory

Zenep (Sena) Agim received an Honorable Mention at the Health and Disease: Science, Culture and Policy graduate student poster competition on Monday, March 31, 2014. She also won a travel award (\$500) from the Purdue University Interdisciplinary Life Science Program (PULSe) and the Women in Science Programs.

Dr. Ulrike Dydak's Laboratory

Chien-Lin Yeh received an Honorable Mention of the Most Outstanding Interdisciplinary Project Award at the 2014 OIGP (Office of Interdisciplinary Graduate Programs) Spring Reception for her Poster entitled "Increasing Manganese Accumulation of Motor and Cognitive Processing Networks in Metal Workers Revealed by Magnetic resonance imaging"! **Shalmali Dharmadhikari** won the SOT Graduate Student Travel award (\$1000); and **Ruoyun Ma, Chien-Lin Yeh** and **Shalmali Dharmadhikari** won the ISMRM Trainee (Educational) Stipend (each \$445) to present their abstracts at the ISMRM 2014., Milan, Italy in May 2014. (not SOT related).

Dr. Jennifer Freeman's Laboratory

Jinyoung Lee won: (1) Korean Toxicologists in America SIG Young Soo Choi Student Scholarship Award (\$1000 scholarship for graduate training in toxicology to a Korean student) (2) Frederick N. Andrews Environmental Travel Grant (\$1500 travel grant from Purdue University to support research focused on improving the world environment) and (3) Purdue Graduate Student Government Travel Grant (\$1000 travel grant from Purdue Graduate Student Government). **Sara Wirbisky** won the Frederick N. Andrews Environmental Travel Grant (\$1500 travel grant from Purdue University to support research focused on improving the world environment). **Kelly Schlotman** won the Pfizer SOT Undergraduate Student Travel Award (national SOT award -- participation in Undergraduate Education Program on Sunday and all expenses paid to attend the national meeting). Also, **Geoffrey Ryan** won the HHS undergraduate travel grant (\$500 from College to support undergraduate travel to national scientific meeting).

Dr. Linda Nie's Laboratory

Yingzi Liu received (1) the SOT graduate student Travel Award (\$1000) and (2) 1st place winner of Purdue 2014 Sigma Xi graduate Student Poster competition (physical section).

Dr. Frank Rosenthal's Laboratory

Eric Ward received an NIH/NIOSH-funded pilot research project award (\$9,250) to investigate Mn exposure among welders.

Dr. Wei Zheng's Laboratory:

Stefanie O'Neal won the PULSe graduate student travel award for her presentation at the Society of Toxicology meeting in Phoenix, AZ, March 24-27.

Chris Bates won a travel award (\$800) from the Ohio Valley Society of Toxicology for his presentation entitled "Transport of α -Synuclein at the Blood-Cerebrospinal Fluid Barrier and Effects of Heavy Metal Toxicities: Potential Role in Parkinson's Disease Pathoetiology" in 2014-SOT meeting in Phoenix, AZ.

Discover U: Purdue Undergraduate Research Poster Session

In a recent "**Discover U: Purdue Undergraduate Research Poster Session**", our students have won the following awards:

1st Place: **Geoffrey Ryan**, School of Health Sciences; Mentor: Dr. Jennifer Freeman "Expression of glyoxylase 1 (glo1) throughout zebrafish embryonic development and alterations following atrazine exposure"

2nd Place: **Michelle DeVilbiss** and **Claire Tighe**, School of Health Sciences; Mentor: Dr. James McGlothlin "Detection and Control of Pathogens in University Computer Centers"

3rd Place: **Tom Freije** and **Carley Ernst**, School of Health Sciences; Mentor: Dr. Shuang Liu "Effect of Co-Ligands on Chemical and Biological Properties of 31 99mTc(III) Complexes [99mTc(L)(CDO)(CDOH)2BMe] (L = Cl, F, SCN and N3; CDOH = Cyclohexanedione Dioxime)"

Other students from Dr. McGlothlin's lab presented their discoveries including: Whitney Popp for her poster titled: "Ergonomic Evaluation of Daily Agricultural Work Practices on a Family Farm"; Joseph Fischer for his poster titled: www.MolecularHUB.org: Development and Evolution of a HUB to Monitor, Inform and Educate Scientists about Emerging Diseases at the Molecular Level); Jenna Ramsey for her poster titled: "The effect of Intraoral Suction on Oxygen-Enriched Surgical Environments: A Method for Reducing the Risk of surgical Fires to Patients and Surgeons.", and David Putt for his poster titled: "Patient recovery needs and nurse best practices using a new scavenging system to control waste anesthetic gases in the Post anesthetic Care Unit (PACE): A Case Study".

INDUSTRIAL HYGIENE POSTER COMPETITION



Jeff Chennault, President of the Chicago Section AIHA congratulating Whitney Popp on her 1st place Undergraduate Poster

On February 19th, twenty-two students, four faculty (Jim McGlothlin, Candace Tsai, Ellen Wells, and Neil Zimmerman (retired)), and one post-doctoral student (Sandra Cole) traveled to Chicago, Illinois to compete with three other universities in the annual Chicago Section American Industrial Hygiene Association Student Night Poster Competition. The other universities included: University of Illinois at Chicago, IL., Northern Illinois University, DeKalb, IL., and Illinois State University, Normal, IL.

For the first time, an undergraduate IH student received this award and it was our own Whitney Popp, a senior in Industrial Hygiene at Purdue for her winning poster entitled: *Ergonomic Evaluation of Daily Agricultural Work Practices*. Whitney's poster is proudly shown in the display case near HAMP 1252.

The first place winner for the graduate poster award went to Josh Horton, a 2nd year graduate student. His winning poster is titled:

Evaluation and Control of Airborne Pathogens for Health Care Workers in the Post Anesthesia Care Unit (PACU) and Intensive Care Unit (ICU).



Jeff Chennault, President of the Chicago Section AIHA congratulating Josh Horton on his 1st place Graduate Poster Award.

Congratulations
Whitney and Josh!

TSE SCHOLARS

Through the generosity of John and Emma Tse, the John and Emma Tse Fund for Global Scholars has been established to assist undergraduate students in the College of Health and Human Sciences with costs associated with study abroad.

Recipients of this scholarship will be recognized as Tse Scholars. Up to \$20,000 in scholarship money will be awarded annually. Scholarship amounts vary, but often range from \$1,000 to \$3,000.

The 2014 winner of this award was Michelle DeVilbiss.

*Michelle - Enjoy this amazing experience
and send us pictures!*



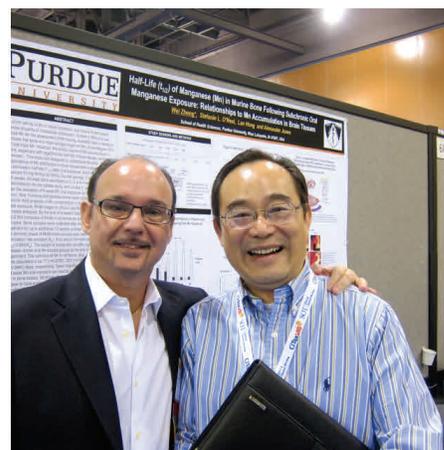
*Learning is the
beginning of wealth.
Learning is the
beginning of health.
Learning is the
beginning of spirituality.
Searching and learning
is where the miracle
process all begins.
-Jim Rohn*

SOCIETY OF TOXICOLOGY 53RD ANNUAL MEETING

Members of the School of Health Sciences attended the annual meeting of the Society of Toxicology in March 22-26, 2014 in Phoenix, Arizona.

Purdue faculty, postdocs, graduate students, and an undergraduate student from the laboratories of Dr. Jason Cannon, Dr. Ulrike Dydak, Dr. Jennifer Freeman, Dr. Linda Nie, and Dr. Wei Zheng presented their research findings related to environmental and occupational toxicology.

Below are some pictures of the meeting, poster session, and the Purdue dinner they attended.



JERROLD T. BUSHBERG - THE ELEVENTH WARREN K. SINCLAIR KEYNOTE SPEAKER



Dr. Jerrold T. Bushberg has been selected to give the 11th Warren K. Sinclair Keynote Address at the 2014 Annual Meeting of the National Council on Radiation Protection and Measurements (NCRP).

The Address, entitled *Science, Radiation Protection and the NCRP: Building on the Past, Looking to the Future* was a featured presentation at the 50th Annual Meeting of NCRP held March 10-11, 2014. The Address was given in the Crystal Ballroom of the Hyatt Regency Bethesda, One Bethesda Metro Center, 7400 Wisconsin Avenue, Bethesda, Maryland at 8:30 a.m. on March 10, 2014. The keynote speaker series honors Dr. Warren K. Sinclair; NCRP's second President (1977 to 1991) and President Emeritus (1991 to present).

Dr. Bushberg received his doctorate from **Purdue University** in 1981 and is the NCRP Senior Vice President, and Chairman of the NCRP Board of Directors. He is Clinical Professor of Radiology and Radiation Oncology at the University of California (UC), Davis School of Medicine. Prior to coming to the UC Davis as technical director of Nuclear Medicine in 1984, Dr. Bushberg was director of radiopharmaceutical research and development and a member of the Radiology Department faculty at Yale University School of Medicine.

Dr. Bushberg was elected to the Council in 2002 and has served as a member or consultant to a number of NCRP scientific committees (SC) including, most recently, SC 4-3, Preconception and Prenatal Radiation Exposure: Health Effects and Protective Guidance; SC 4-1, Reference Levels and Achievable Doses in Medical and Dental Imaging: Recommendations for the United States; as well as SC 2-1, SC 2-2, and SC 91. Dr. Bushberg has served as a member of the NCRP Budget and Finance Committee since 2012; NCRP Nominating Committee since 2006 and the NCRP Nonionizing Radiation Advisory Panel since 2005. He served as chairman of the 2007 Annual Meeting Program Committee and was a member of the committee for the 1999, 2010, and 2011 annual meetings. Dr. Bushberg was Scientific Vice President for Program Area Committee (PAC) 4, *Radiation Protection in Medicine*, from 2005 to 2010 and currently serves as a member of PAC 3, 4, and 7. Dr. Bushberg was elected to the NCRP Board of Directors in 2005 and has served as Chairman since 2011. NCRP is honored that Dr. Bushberg has made so many contributions to our Council throughout his career.

Dr. Bushberg is an expert on the biological effects and safety of ionizing and nonionizing radiation in medicine and has published numerous articles and book chapters in this area and has been awarded several U.S. patents for innovative radiation detection technology. Dr. Bushberg is a fellow of the American Association of Physicist in Medicine and is certified by several national professional boards with specific subspecialty certification in radiation protection and medical physics. Dr. Bushberg has served as an advisor and subject matter expert in radiation protection, radiological emergency medical management, and biological effects and safety of ionizing and nonionizing radiation to government agencies and institutions in the United States and internationally, including the U.S. Department of Homeland Security, the World Health Organization, the International Atomic Energy Agency, and the International Committee on Electromagnetic Safety. He is responsible for medical postgraduate education in medical physics, radiation (ionizing and nonionizing) protection, and radiation biology at UC Davis School of Medicine. The 2011 textbook, *The Essential Physics of Medical Imaging* (3rd ed.), authored by Bushberg, Seibert, Leidholdt, and Boone, is used extensively by radiology residency and biomedical engineering programs throughout North America.

The 2014 NCRP Annual Meeting celebrates the achievements of NCRP over the past 50 years under Congressional charter and examines future needs in radiation protection and measurements and how they might be addressed. The W.K. Sinclair Address and all other sessions are open to everyone with an interest in radiation protection, measurements, health and science. There is no registration fee. For additional information contact James R. Cassata, PhD, CHP at cassata@NCRPonline.org, 301-657-2652, ext. 20, or 301-907-8768 (fax).