School of Health Sciences

HSCI Update

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From the Department Head

George Sandison

The School is continuing to make excellent progress. This past year (2005-6) the number of undergraduate degrees conferred was 169, a dramatic increase over the previous year's figure of 114 and an astonishing increase of 111% over the numbers of degrees conferred in 2001-2. Even so, our fall undergraduate enrollment of 641 remained close to the 651 record figure of Fall 2005. The graduate student body also increased to 42, which means we now have 4.2 graduate students per faculty member. This enrollment figure is double that of Fall 2000, but most pleasing is the increased diversity of the graduate student body (42.9% non-Caucasian and 46% female). We graduated a record 9 M.S. and 5 Ph.D. graduate students in 2005-6, so it was quite an achievement to also increase the Fall 2006 enrollment.

Numbers of undergraduate students in the radiological health science, occupational health science and environmental health science all grew this year. This was especially significant for the radiological health science program, since 26 students graduated with this major in 2005-6, the largest number in over twenty years. Research staff levels are also increasing because of the great success of the faculty in attracting funding. We now have research expenditures that exceed $211,000 per faculty member and more than $2.5 million in research grant funding was awarded to our ten regular faculty last year.

The faculty recently established a new graduate degree option in radiation biology and agreed to participate in the interdisciplinary human factors graduate degree option. At the undergraduate level provost Sally Mason provided two years of support of the forensics minor as we moved toward establishing permanent funding. We are eternally grateful to Sally for this support!

Our overall development goals under the Campaign for Purdue have been greatly exceeded due to a corporate in-kind gift of almost $2 million dollars that provided treatment planning software for the graduate medical physics program. This major gift was complemented by others that included a $125,000 pledge from the Goshen Cancer Center toward graduate fellowships and the $20,000 endowment gift from the Vetter family to establish the Dr. Richard Vetter Scholarship. Most recently we have been notified that Federal Express will donate a plane to the School of Health Sciences for the forensic science and emergency response training, an in-kind gift of $150,000.

The icing on the cake of all this good news is that we now have a new Dean of the College of Pharmacy, Nursing and Health Sciences, Dr. Craig Svensson. It is clear that Craig is anxious to help our School push on with the excellent progress it has made. Craig is an accomplished teacher and scientist and we look forward to his guidance and support as we move to create the new 5-year strategic plan for the School and improve the quality of our programs. (Read more about Craig later in this issue.)

Finally, I want to offer my best wishes to you and your families for the holiday season and the best of luck in your end of semester examinations and for the New Year.

Welcome to the new Dean of the College of Pharmacy, Nursing and Health Sciences

Dean Craig K. Svensson, Pharm.D., Ph.D.

"Do not sacrifice tomorrow on the altar of today."

An Interview with Dean Svensson

What was the official date that you joined Purdue University and where were you before?

"My official start date was October 1, 2006. Prior to joining Purdue I was the Lyle & Sharon Bighley Professor in Pharmaceutical Sciences and Head of the Division of Pharmaceutics in the College of Pharmacy at The University of Iowa."

What piqued your interest in this Dean position?

"When I was asked to consider becoming a candidate for the deanship at Purdue, I was already aware of the strong national reputation of the School of Pharmacy and Pharmaceutical Sciences. But it was important for me to learn more about the other two schools within the College (Health Sciences and Nursing) and to assess their potential for the future. During my inquiries and visits to the campus, I sensed a strong collegial environment that could be further cultivated to achieve excellence across all programs. In my visits throughout the campus, there was a real sense of excitement among faculty and senior leadership. As much as anything, the culture of Purdue and the 'can do' mentality convinced me that the College operated in an environment that would enable it to achieve its collective goals."

What is your educational background?

"I was raised in Ellicott City, Maryland and educated in the Howard County Public School system. After completing my pre-pharmacy work and enrolling in the baccalaureate program in pharmacy, I earned a Doctor of Pharmacy degree from the University of Maryland and then a Ph.D. in Pharmaceutics from the State University of New York at Buffalo. I also completed a postdoctoral fellowship in Pharmacokinetics at the State University of New York at Buffalo."

What is your professional background?

"After completing my postdoctoral fellowship, I joined the faculty of the Department of Pharmaceutical Sciences in the College of Pharmacy and Allied Health Professions at Wayne State University in Detroit, Michigan. At the time of my departure from Wayne State, I held the rank of Professor and served as Associate Chairman of the Department of Pharmaceutical Sciences in the College, which had been renamed the College of Pharmacy and Health Sciences. I joined the faculty of the University of Iowa in the College of Pharmacy as the Lyle & Sharon Bighley Professor in Pharmaceutical Sciences and Head of the Division of Pharmaceutics in 2003."

Tell me about your family.

"My wife, Sue, and I have three children (Bob, Kate and Eric) who range in age from 19 to 29, as well as three grandchildren. Our oldest and his family live in New Baltimore, Michigan, while our daughter and her husband live in Beavercreek, Ohio. Our youngest moved with us to the greater Lafayette area."

What do you enjoy doing in your free time?

"My wife and I have always been very involved in our local church, so much of my 'free' time has always been devoted to studying and preparing for teaching and preaching responsibilities. We enjoy backyard bird watching and taking walks. I also enjoy reading and rollerblading. I am an avid fan of Red Wings hockey (the professional team in Detroit), so I am in the midst of going through withdrawal - being unable to catch any of their games on TV. "

An Interview with Dean Svensson *continued*

What is your favorite book/author or movie?

"My favorite book is *Killer Angels*, which is about the battle of Gettysburg."

What awards have you received?

Rho Chi Honor Society (Pharmacy)

Meritorious Research Award; American Federation for Clinical Research

Career Development Chair Award; Wayne State University

James A. Shannon Director's Award; National Institutes of Health

Teacher of the Year, Wayne State University Doctor of Pharmacy Class of 2006

Lyle & Sharon Bighley Professorship, The University of Iowa

Teacher of the Year, The University of Iowa College of Pharmacy

Keynote Speaker, Convocation Ceremony, Wayne State University Doctor of Pharmacy Class of 2006

Fellow, American Association of Pharmaceutical Scientists

What are your perceptions of the College so far?

"The College has a dedicated faculty and staff, an excellent student body, and strong support from the University administration. I believe the College is in an excellent position to excel and demonstrate leadership in the 21st century."

How would you like to see the Schools of the College interact?

"It is clear that interdisciplinary training and research must be an emphasis for any program that hopes to be a leader in its field. As such, I believe we need to strengthen the interaction between the various programs in the College in the areas of learning and discovery. If students are not trained in an interdisciplinary environment, it is unlikely they will be prepared to work in such an environment. "

What do you think are the strengths of the School of Health Sciences?

"No school or program can rise above the quality of its students, staff and faculty. The commitment of faculty and staff in the School of Health Sciences is strong, which is an important asset for the School. Since its founding in 1979, the School has provided diverse programs in human health and safety. These are areas of pressing importance in today's society – which puts the School in a strong position to take advantage of strategic priorities at the state and national level."

What do you think is the most pressing issue facing the School of Health Sciences today?

"Positioning the School to take advantage of emerging trends in the health sciences must be the highest priority. The pace of change in education and research is accelerating and the excellence of our programs necessitates anticipating those changes and being leaders in new developments. "

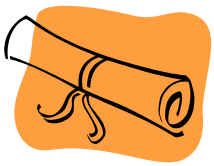
In what position would you like to see this School five years from now?

"I would like to see its programs rise in national recognition and stabilize its funding base through increased success in extramural funding."

Thank you Dean Svensson!

Congratulations to the Fall 2006 School of Health Sciences Bachelor of Science Graduates

Pamela Grace Amacio
Abigail Edens Ayres
Amy Jo Balensiefer
Darren A. Brown
Clinton Joseph Daniels
Anna Elizabeth Disque
Nathan J. Duff
Dawn Rochelle Essenmacher
Carlos Jose Garrido
Evgeny Goldman
Jessica Marie Grabowski
Katherine Marie Grote
Matthew Alan Hadden
Benjamin Michael Hasbrouck
Brayson Howard Hoover
Serena J. Humes
Ann Jee
You Jin Jeon
David Michael Kinder
Rachel H. Koszuilinski
Elizabeth Joy Levine
Amanda Suzanne Lewis
Rena Nan Liu
Sean Ryan Matyas
Hieu Thanh Nguyen
Justin Andrew Quinn
Jennifer Lee Rath
Lindsay Michelle Robinson
Lori Kristen Rosebrock
Michael Anthony Schneider
Shakeia Mechelle Taylor
Daniel Scott Urban
Karina Vasquez
Rebecca Jayne Vollmer
Neil Richard Whiteside
Abby Marie Wrightsman



"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."

-Albert Einstein

Congratulations to Health Sciences Students Admitted to Professional Schools

Sally Angermeier
Indiana University School of Medicine

Sandeep Dhanjal
Indiana University School of Medicine and the University of Kentucky College of Medicine

David Bond
Indiana University School of Medicine

Rachael Huske
Physical Therapy Program at Northwestern University

Erik Baker
Illinois College of Dentistry

Brittany Shwartz
Indiana University Dental School

Alex Titus
Indiana University Dental School

Tasha Metzger
Case Western Dental School

Michael Talbott
Indiana University Dental School

School of Health Sciences 2006 Distinguished Alumnus

Dr. Jou G. Hwang

BS, Pharmacy, National Taiwan University, 1978

MSPH, Environmental Health, University of South Carolina, 1982

PhD, Health Physics, Purdue University, 1986

Upon graduation, Jou Hwang worked for a short period at the Illinois Department of Nuclear Safety, where he served as section head for the agreement state licensing program. Subsequent to that, he was the section head for radon remediation at the New Jersey Department of Environmental Protection.

Dr. Hwang began his career in consulting in 1987 with ICF Kaiser Engineers Inc. as a project manager for the U.S. Environmental Protection Agency (EPA), working on CERCLA remedial investigations and feasibility studies at hazardous waste sites. He continued to provide consulting services in positions at Gibbs and Hill Inc. (Hill International) and Science Applications International Corporation, where his primary responsibility was support of the Department of Energy's (DOE) environmental management efforts.

He then moved to the Cadmus Group, serving the DOE as well as the EPA Office of Air and Radiation. In 1995, Dr. Hwang founded Advanced Technologies and Laboratories Inc. (ATL), where he currently serves as president and continues to consult for the DOE and other federal agencies.

Dr. Hwang is accomplished in both technical and management positions, working with public agencies, industries, and academic institutions in the areas of radiological and toxic risk assessment, safety documentation, and technology applications, especially those dealing with decommissioning of nuclear facilities and equipment. He also has expertise with licensing and compliance, occupational safety and health, environmental restoration, waste and project management, radiological protection, and training. His expertise includes work planning, monitoring, compliance, and audit and corrective actions. Among his customers are the Nuclear Regulatory Commission, the DOE and DOE National Laboratories, the Department of Labor, the EPA, and the Department of Transportation.

Since 1997, he has served as the project director to support the Occupational Safety and Health Administration (OSHA) in its enforcement programs, compliance assistance programs, standards and directive development, policy analysis, safety and health information bulletin development, outreach, and eTool development. He was a major technical contributor and task manager to support OSHA and its DOE external regulatory activities. Under his guidance, ATL has successfully completed more than $7 million worth of quality work for various OSHA directorates in the last seven years. He is a recognized expert in radiological performance assessment for nuclear disposal sites and served on the National Chinese (Taiwan) LLW site characterization review panel.

Since its inception, ATL has grown from half dozen consulting staff to more than 150 technical employees. ATL is recognized as a primary provider of quality services by various federal government agencies and national laboratories. Dr. Hwang leads a team of senior managers in business development activities and continues to provide hands-on technical expertise to a wide range of clients with more than 200 tasks during the last 12 years. Recently, the DOE awarded ATL a contract to operate its primary laboratory for highly radioactive samples at the Hanford Site. The five-year contract for Hanford analytical and testing services is valued at $58 million. ATL has an annual revenue exceeding $10 million and has offices in Maryland, New Mexico, Tennessee, and Washington.

Dr. Hwang has been married to Ray-way (Alice) Hwang since 1982 and has two sons, Jesse and Raymond. Jesse is a senior at the University of Maryland and Raymond is a freshman at Washington University in St. Louis. The Hwangs are devoted Christians and live a plain and simple lifestyle.

Advisory Board

Front Row: Dennis Paustenbach, Richard Vetter, Lynne Fairobent, Bart Geyer, Stan Hampton

Back Row: Jou-Guang Hwang, Paul Ziemer, Sven Rundman, Brent Murphy, Johann Geyer

The School of Health Sciences Advisory Board was formed to help support and advance the mission of the school. Board members are selected based on their ability and willingness to provide leadership, assist with fundraising, and provide necessary links with other alumni and friends.

The Health Sciences Advisory Board met October 19-22, 2006. They began their visit with a tour of the Birck Nanotechnology Building and dined with distinguished alumni at McGraws.

On Friday they were introduced to Dr. Craig Svensson, Dean of Pharmacy, Nursing and Health Sciences. They also had very informative meetings and lively discussions which included a presentation by Jim McGlothlin.

On Saturday the Board members attended President's Council Breakfast. They took the Shuttle to Ross Ade Stadium and attended the Purdue vs. Wisconsin game.

PURDUE UNIVERSITY

School of Health Sciences
Freshman Scholars

The School of Health Sciences is proud to announce its Freshman Scholars for the 2006-2007 academic year. The program provides freshmen, selected competitively based on high school scholastic performance, the opportunity to work with a faculty preceptor in a field related to health and medicine. This year we have seven scholars from across Indiana. All are off to a great start working on their projects with their preceptors.

The students are also participating in a seminar discussion course with Dr. Rosenthal, and are benefiting from additional experiences through contact with guest speakers and peer mentors (outstanding upper class students in the School)

2006-2007 Freshman Scholars

Name	Hometown	Preceptor	Peer Mentor
Carly Dykstra	Elkhart	Dr. Gary Carlson	Meredith Turner
Allison Gill	Mishawaka	Ms. Dusti Chase	Amanda Murphy
Kari Hall	Pittsboro	Dr. George Sandison	Rachel Lime
Jennifer Harber	Fort Wayne	Ms. Nancy Maylath	Erica Frazier
Courtney Roberts	Centerville	Dr. Steven Abel	Lyndsay Langbehn
Elisa Rudolph	Indianapolis	Dr. Charles Babbs	Thomas Getreu
Jessica Zahn	Zionsville	Dr. Jian Jian Li	Andrea Venditti

CALL FOR NOMINATIONS…

Robert R. Landolt Award for Excellence in Teaching

School of Health Sciences, 2007

The School of Health Sciences is pleased to request nominations for the 2007 Robert R. Landolt Award for Excellence in Teaching. All faculty and staff who teach Health Sciences courses are eligible for the award. Letters of nomination can be sent to Dr. Frank S. Rosenthal, chair, School of Health Sciences Awards Committee. Any student, faculty member or alumnus can submit a nomination or an additional letter of support. Letters of nomination or support can be submitted at any time, but should be received no later than February 1, 2007. For further information please contact: Dr. Frank S. Rosenthal, Room 1273 CIVL, 765-494-0812, FAX: 765-496-1377, email: frank@purdue.edu.

Office of Student Services News

Bob Walkup
Head Academic Advisor

Our student body continues to grow in quality! We are the home of over 150 new Boilermakers as of August 2006. Our total number of enrolled undergraduate students was over 640 this Fall semester While we are very encouraged by that number because it indicates continuing interest in or majors, we are even more impressed with the increasing quality of our students and their achievements. For the 4th year in a row, we had over 70% of our graduating seniors planning to further their educational experiences by attending graduate school or professional school. Also, 13 students of our alumni were admitted to medical school last year. This accounts for 25% of the Purdue University medical school admits for the 2005-2006 calendar year. This is remarkable since our School accounts for less than 2% of the student body at the undergraduate level. Congratulations to all of our students who have chosen to further their educational careers.

We have more good news in that we are succeeding in increasing the number of students in our Occupational Health Science, Radiological Health Science, and Environmental Health Science majors. This effort was part of the School's strategic plan to build those numbers steadily. We also have increased our student numbers in Medical Technology while continuing to maintain our numbers in the General Health Sciences major.

This year's group of School Ambassadors is smaller in number that previous years but is remarkable for their academic achievements. The overall grade point average of the group is over a 3.7. Needless to say they perform a tremendous service to our school as role models.

We are delighted to have Cathy Beck as our new secretary and office manager. Cathy brings many gifts and talents to our office. She came to us from the C&IT department in August of this year and has been a delightful presence in the office for both the staff and students.

Carol Powell is also now serving as a full time advisor. Carol had been with us half time but with our continued growth, we were able increase her work load. Carol has several years experience as an academic advisor and is showing great dedication to her students.

Dave Tate and Rosemary Ricci continue in their roles as mentors and motivators to our students. Both have completed their 25th years with Purdue University and bring their wisdom and sparkling personalities to work with them each day.

It is very comforting to know that our students are able to benefit from the caring of the best advising staff on the Purdue campus. I want to thank all our staff for creating such a positive environment for our students. Stop by and visit with us when you are on campus. We are located in the Civil Engineering Building, room 1163 directly across from the Pharmacy School.

Bob Walkup

Head of Student Services

2006-2007 Health Science Ambassadors

Left to right Front Row: Sandeep Dhanjal, Lindsay Dauby, Christina Kranc, Amy Pajakowski, Monica Mitcheff, Chris Kutanovski

Middle Row: Allison Seagren, Christina Jackson, Erin Berry, Amanda Murphy, Kelly Strom, Danielle Cowan

Back Row: David Bond, Akshay Thomas, Kimberly Deal, Diana Kolettis

Not Pictured: Kelly Coloumb, Tasha Metzger, Greg Zilligen, Megan Monaghan, Fred Foster, Katie Scocozzo, Brittany Swartz

The School of Health Sciences is very proud of the new group of Ambassadors for the 2006-2007 school year. This is the 7th year for our Ambassadors program. There are several events in which the Ambassadors play a significant role in recruiting new students. The average GPA of this year's group is 3.71. A callout for new Ambassadors is held each Spring. In order to be selected, a student must meet the following qualifications:

* Be a full time student in the School of Health Sciences
* Be classified as a 5 or higher
* Have at least two semesters remaining at Purdue
* Have a minimum grade point average of 3.2

Each applicant is reviewed and eligibility is determined through a very selective process. For further information, please contact Bob Walkup at rcwalkup@purdue.edu.

Pre-Dental Club *by Grant Hunsicker*

The pre-dental club holds meetings at the end of each month. At meetings we discuss up coming dental school deadlines, dental school interview questions, internship/volunteer opportunities, and several times throughout the year we have dentist come to speak about their practice. We are currently doing an ongoing fundraiser in cooperation with The Chapel of the Good Sheppard here in West Lafayette. We help sell the parking spots in the church's parking lot for home men's basketball games in order to raise money for the dental clinic in Lafayette. We also take a trip down to IU dental school once a semester to see what dental school is like. All our up coming meetings and event are posted on our website www.purdue.edu/predent

Health Sciences News

2006 Radiological Emergency Response Exercise (RERE)

by Matthew Le, Senior in Radiological Health

From December 4th to 7th this fall, the School of Health Sciences will hold its 3rd annual Radiological Emergency Response Exercise (RERE) for the students enrolled in HSCI 312 Radiation Science Fundamentals. The exercise is an opportunity for students to apply radiation protection principles and related concepts in a time-sensitive environment that may (but hopefully not) be encountered in the real-world. The exercise is also intended to promote student interest in Radiological Science and in the Purdue Branch of the Health Physics Society (PBHPS). The exercise was planned by graduate student Anthony Cagle and undergraduate radiological health students Nathan Duff, Matthew Le, Lisa Ly and Claudia Sacha. Professor Rob Stewart is the instructor for HSCI 312 and is serving as the faculty advisor for the RERE. Twenty other undergraduate and graduate students from the School of Health Sciences will serve as actors and support personnel for the exercise, and Mary Handy, Mark Pflug, and Dr. Jim Schweitzer from Radiological and Environmental Management (REM) office will participate in the exercise and serve as additional advisors. The RERE is sponsored in part by the PBHPS and in part by the Indiana Department of Homeland Security, Mr. Joseph A. Bell Section Chief for Specialty Training Programs.

Cast and crew ("cadre") for the 2006 RERE

Front Row (left to right): Jonathan Pecinovsky, Alden Tyler Carter, Daniel Urban, Professor Stewart*, Mary Handy, Hannah Jones, Elisabeth Rudolph, Tessa Mui. Back Row (left to right): Rod Oancea, Mark Pflug, Sean Essex, Jason Harris, Sean Matyas, Megan Nieman, Priyanka Vyas, Nathan Duff*, Keri Davis, Neil Whiteside, Claudia Sacha*, Matthew Le*, Anthony Cagle*, Stephanie Haak, Lisa Ly*, and Mike Stringham. Not shown are Adam Poparad, Mike Shaffer, and Dr. James Schweitzer.

*** Member of RERE Planning Team**

In this year's scenario, a hypothetical laboratory in a one-story building on campus has been licensed to research new applications of radioactive materials extracted from the chemical reprocessing of spent nuclear fuel. The laboratory is licensed for a maximum of 10 Ci of ^{137}Cs, 5 Ci of ^{60}Co, 5 mCi of ^{90}Sr and 10 mCi of ^{241}Am. The lab has been fully functional for approximately one year and several projects are ongoing. At 2:15 p.m. on an otherwise normal working day, community sirens and facility alarms begin to sound a tornado warning. Three professors working in the lab dismiss all other lab employees but, thinking they have time to complete an important experiment, ignore the warnings and continue working. Unfortunately, a tornado touches down near the lab, knocks out a section of a wall and upends several shielded containers and storage cabinets containing highly radioactive liquids and solids.

2006 Radiological Emergency Response Exercise (RERE) *continued*

At 3:00 p.m., a fireman arrives on the scene. He and an employee from another part of the building enter the room and remove the three researchers, two of whom are unconscious, from the laboratory to an area free of debris. All three researchers' dosimeters are missing, and one of the victims has an open wound. After reviving one unconscious victim and stabilizing the other, the fireman calls university security who in-turn contacts the university radiation safety officer (RSO) and the radiation emergency response team (RERT). The latter will be played by students enrolled in the HSCI 312 Radiation Science Fundamentals course. The RERT will consist of 6 students per team, and 15 separate teams will run through the exercise (89 students in total; one team has 5 members instead of 6). Upon arrival of the RSO at 3:05, the victims, the fireman, and the good-Samaritan employee are escorted by the RSO to an adjacent room with lead shielded walls that is presumably free of radioactive contamination. The RSO quickly creates a controlled area for patient triage efforts around the potentially contaminated first responders. Campus security arrives with the RSO and creates a control zone to limit access to the entire radiation emergency area including both controlled areas.

After directing the fireman, the good-Samaritan, and the professors to remain inside the controlled portion of the triage area, the RSO identifies a location to setup headquarters for the RERT. At approximately 3:15 p.m., the RERT arrives at the entrance to the control zone. The RSO briefs the RERT on the situation and provides a copy of the radioactive materials license for the facility. The RSO will verify that the students playing the role of RERT personnel perform the proper instrument checks, understand general safety warnings, and have donned the appropriate personal protective gear. The RERT then assumes responsibility for the control zone and separates into three two-person teams: (1) RERT coordinators, (2) survey team, and (3) triage technicians. The RERT coordinators will oversee the activities of the survey team and triage team and respond to questions from simulated media personnel, bystanders, and families of the victims. Questions may include general inquiries about the nature of radiation and radioactivity, the differences between radiation exposure and contamination, threshold symptoms for certain doses of radiation, and long-term effects from radiation exposure.

Radiological emergency response worker dancing near a radioactive spill (*not* an ALARA practice!).

Image courtesy of Joseph W. Silvers, Health Physics Alumni, 2005.

Ludlum 14C model GM meter counter

The survey team will enter the damaged laboratory and locate all radioactive materials while keeping their own exposures *As Low as Reasonably Achievable* (ALARA). The RERT members are also charged with the responsibility of preventing the spread of contamination to other sections of the facility. Members of the RERT will be equipped with survey meters purchased for the School of Health Sciences by the Indiana Department of Homeland Security. The survey meters are designed to look and operate like Ludlum model 14C GM meters. However, these survey meters are unique in that meter readings can be controlled remotely by a cadre member. The cadre member controlling the survey meter has the ability to increase or decrease meter readings to simulate background radiation as well as any radiation emitted by other sources. All RERT members will be trained in the correct use of the radiation detection equipment and personal protective equipment (PPE) before commencing the exercise. HSCI 312 students will don actual contamination suits and carry personal dosimeters. Students will be trained on the correct way to don and doff contamination suits as well as how and when they should read personal exposure level readings from the dosimeters. The RERT will be required to estimate the activity of sources and contamination found within the facility and also identify the types of ionizing radiation emitted by any sources they find.

2006 Radiological Emergency Response Exercise (RERE) *continued*

While the survey team characterizes radiation sources within the damaged laboratory, the two-person triage team will assess the medical condition of the victims and first-responders that entered the lab without protective equipment. The triage team will be challenged with the task of estimating the approximate doses first responders and other victims received from symptoms they exhibit. The triage team will also assess the severity of wounds and check for radioactive contamination.

At various times during the exercise, members of the RERT will be required to answer technical and non-technical questions about the exercise and related radiation science concepts from simulated media personnel, bystanders, and families of the victims. Actors and support personnel will evaluate the performance of RERT team members and provide feedback and additional instruction on radiation protection principles and ALARA practices. After the exercise, the RERT will answer a series of questions that relate to the exercise, such as how to estimate the absorbed dose rate near a radiation source, determine the types of radiation emitted by a source, and ALARA principles.

Friends, family and alumni of the School of Health Sciences are welcome to attend and observe the exercise. The exercise will be held in the Civil Engineering building on Purdue University's West Lafayette campus in rooms G150 and G153. The exercise will take place December 4th through the 7th from approximately 5 to 10 p.m. each night.

Acknowledgements

Professor Stewart and the RERE planning team wish to thank to Mr. Joseph Silvers, Major USAF and HP Alumnus in 2005 and Mr. Thad Sharp, Lieutenant USN and HP Alumnus in 2006 for initiating and organizing the radiological emergency response exercises in 2004 and 2005. Also, a special thanks to Thad Sharp for preparing and submitting the proposal to purchase of the remote-controlled survey meters.

Helpful information from the Student Wellness Office

PEEPS (Positive Educational Experiences for Purdue Students)

Students - Want some FREE advertising for your student organization's next alcohol-free event? If so, then visit www.purdue.edu/peeps. On the PEEPS website, click on Activities and scroll down to the bottom of the page to post your activity. We'll do the rest by advertising the site on Facebook, BTV, and other places around campus. While you're at the PEEPS site, we hope you'll stay for a while and look around. For more information, contact Tammy Loew, Student Wellness Office, tfloew@purdue.edu, or 765-496-6780.

Parents - Are you interested in learning more about the alcohol scene on campus? If so, then visit www.purdue.edu/peeps. You'll be introduced to PEEPS, a grant project designed to reduce high-risk drinking among first-year students. On the site, you will see Purdue data, how to talk to students about alcohol, alcohol-free activities for students, and other important information. The PEEPS site is updated weekly. For more information, contact Tammy Loew, Student Wellness Office, tfloew@purdue.edu, or 765-496-6780.

The Purdue Branch of the Health Physics Society (PBHPS)

The PBHPS is a student organization of the Health Physics Society (HPS). The HPS is a scientific and professional organization whose members specialize in occupational and environmental radiation safety. The PBHPS plans activities and events for students particularly interested in the field of health physics and medical physics. Students in fields such as industrial hygiene and nuclear engineering are also encouraged to join and participate in the PBHPS.

2005 and 2006 were yet again great years for the PBHPS! The society is still growing with nearly 50 members. Listed below are some of the recent activities organized by PBHPS.

Health Physics Academic Programs

In spring of 2006, members of the academic committee visited Benton Central High School in Benton County, IN to talk with seniors about health physics and career opportunities in the field. Society members also volunteered for the 2nd annual Radiological Emergency Response Exercise conducted as part of the HSCI 312 class. In addition, the society held study sessions for the HSCI 312 class and assisted graduating seniors with career-development by providing resume building sessions and mock interviews. A group of society members visited the Indiana University (IU) medical center in Indianapolis to learn more about the center's radiological health department.

National Health Physics Activities

Our student branch, along with the HPS Hoosier Chapter, hosted then HPS President-elect Brian Dodd for a visit. He gave an excellent presentation about radiological terrorism and missing radioactive material. Also, several members of the society attended and gave presentations at the National Health Physics Society annual meetings in Spokane, WA and Providence, RI.

HP for Hire Fund Raiser

To raise money for the chapter, members of the PBHPS volunteer to help faculty or staff perform tasks around the house, such as mowing the lawn, raking leaves and spreading mulch. In return for their services, a donation to the PBHPS is requested. The donated funds are used to suppose PBHPS activities, such trips to meetings or national laboratories or other facilities related to radiological health. The PBHPS is also investigating the possibility of creating a new scholarship to support students interested in careers in Radiological Health.

Chapter Meetings

Our chapter holds one meeting a month to talk about scholarships available, information about HP for hire events, have professors or health physicists give presentations, or hold social events. Also, last year a representative from Purdue's Center for Career Opportunities hold a resume building event for students in the chapter.

PBHPS Officers and Advisors

Keri Davis, President

Adam Poparad, Vice President/President-elect

Sean Essex, Treasurer

Matthew Le, Secretary

Professor Rob Stewart, Faculty Advisor

Jason T Harris, Ph.D. Candidate in Health Physics and Co-Advisor

To learn more about our organization or our activities, contact Matthew Le (mhle@purdue.edu).

Focus on Faculty and Staff

Dr. Robert Stewart

Dr. Robert Stewart joined the faculty of the School of Health Sciences at Purdue in the fall of 2002 as an Assistant Professor of Radiological Health. In August of 2006, he was granted Tenure and promoted to Associated Professor. He also became the Director of the Undergraduate Program in Radiological Health and Chair of the Undergraduate Curriculum Committee. Prior to joining the Purdue faculty, Dr. Stewart conducted investigator-initiated research at the Pacific Northwest National Laboratory (PNNL) in Richland, WA for eight years. Since joining the Purdue faculty, he has published over 14 peer reviewed journal articles and served as the Principal Investigator on several Department of Energy Low Dose Program grants. Dr. Stewart is a member of the American Association of Physicists in Medicine, the American Nuclear Society, the American Society fro the Advancement of Science, the Health Physics Society, and the Radiation Research Society. He was elected Physics Counselor of the Radiation Research Society in 2005.

Dr. James McGlothlin

Jim has received multi-year support from Purdue, Department of Human Resources, for his ergonomics study entitled "Lifestyle and Behavioral Risk Factors in the Workplace: The Relationship between Healthy Lifestyle and Health in the Workplace". This is a 3 year project beginning January 2007 with $315,848 of support. The work compliments another award for $250,000 received last year to develop an ergonomics program for Purdue University. The two awards will interact (healthy lifestyles and healthy workplaces) to drive down musculoskeletal disorders at Purdue. The annual Healthcare cost at Purdue is 100 million per year, and musculoskeletal injury cost has been ranked #1 or 2 for the last 10 years. The goal of Jim's research team is to drive down Musculoskeletal injuries below the top 10 list by cost in the next 3-5 years. Please join us in congratulating Jim on this well-deserved award. It is fantastic news and another indicator of a faculty contributing powerfully, positively and collaboratively to our Purdue community. Well done Jim!

Also please join us in congratulating Dr. Jim McGlothlin for his selection to receive the Purdue University Focus Award. This award is given in recognition of Jim's work in advancing disability accessibility and diversity on our campus. There is a plaque of recognition in the Purdue Memorial Union, across from the Director's Office (Room 108) . Congratulations Jim!

Focus on Faculty and Staff *continued*

"Focus on Dave Tate"

by Nina Piwtorak

From the Greater Indiana Chapter of Clinical Laboratory Managers

Dave Tate

"Everyone in the laboratory has that one person who leaves a mark on their career. Dave Tate is that person for me. Dave is the Director of Clinical and Forensic Sciences at Purdue University in Lafayette. A position he has held for over twenty five years. Dave was my academic advisor during my quest for a degree in laboratory science. He is so good at what he does that I credit him for my success in the laboratory field.

Evidence of being a successful advisor is shown in the fact that Dave has been in over fifty weddings of his former students. Dave was also nominated by the Women's Basketball team, Men's track coaches, and the Purdue ROTC as a "Special Boilermaker." Dave credits his success as an advisor to loving what he does. Dave said, "I still contend that someone will eventually question why they pay me for doing something that is so much fun and rewarding." Many of us in the laboratory field mirror Dave's sentiment. We do what we love and we love what we do.

I had the opportunity to obtain Dave's views on issues concerning the laboratory during a recent discussion. I wanted to know if Dave was aware of the current laboratory staff shortages. Dave said, "We discuss this frequently in one of our core classes." A.S.C.P and C.L.M.A are working hard on the shortage issue, but I was surprised to note that neither works directly with Purdue. Dave does however refer to the websites as a constantsource of information for the students.

. "I can always get information from a web source but actually interacting with someone is invaluable," said Dave. Perhaps a cooperative relationship between laboratory organizations and educational institutions would be invaluable in addressing the shortage. Dave said, "I'd just encourage both organizations to continue to publicize job opportunities and continued training." "Recruiting is the name of the game," Dave said, when it comes to Purdue's answer to the staffing shortage. Dave gives presentations to various academic groups at Purdue and to high school groups. Dave said that medical technology is an easy sell with virtually 100% placement, training that allows for diverse job opportunities, working with a medical team, and knowing that your work directly assists the treatment of a patient. Dave is keenly aware of medical technologist assisting in the treatment of patients. Many years ago Dave was critically ill. Dave said, "A medical technologist caught what others had missed and I'm alive today because of the training that individual had."

I asked Dave what his thoughts were on why students are not choosing to enter the laboratory field. He said, "I think the primary reason is monetary; they just want

to make a wage that is com-

patible with other professions." Dave said, "The historical salary of the laboratory staff is lagging and causing some to leave the field." Dave remarked, "This is where the leaders of professional organizations have to step up and be assertive." "Other professional organizations have some form of union or strong lobbying efforts except ours," said Dave. It is true that strong lobbying efforts are difficult with the number of groups representing the Laboratories even have several agencies that issue professional certifications. Dave states, "My question to the practicing professionals out there is what do you gain by keeping it the way it is?" Wouldn't having one certifying agency will allow for a stronger voice for pay and recognition?

I asked Dave how he would encourage a M.L.T to pursue a M.T. degree. He said that he would remind them of the investment in opportunity. Dave said, "I would strongly suggest they look down the road and understand that a BS degree opens many doors." GI-CLMA encourages the pursuit of career advancement and offers scholarships to students pursuing careers in the laboratory field. I wondered if Dave and his students were aware of the scholarships. Dave said, "Yes, and I continue to remind students of these possibilities."

Finally, I asked Dave what changes he has seen in the students over his career. Dave replied, "These students are just great, I have the utmost respect for my M.T. students." Dave said that he has seen more interest in making a larger salary base than in the past years. Another change that Dave noted was the increasing interest in forensics. Dave said, "Many of our M.T. students have an interest in laboratory analysis and their training as an M.T. is one way to enter the field of forensic laboratory work."

We can improve our profession by remembering our past relationships and realize both parties can benefit from a continued working relationship with good communication in an effort to reach a common goal. Dave was an inspirational part of my past, but I look forward to a renewed relationship to aid my profession in the resolution of common deficiencies.

Welcome to the new faculty and staff

Dr. Kiran Kalia - Visiting Professor

Dr. Kiran Kalia is currently a visiting professor in Dr. Zheng's laboratory. She joined as a faculty at Sardar Patel University, Vallabh Vidyanagar, Inida in 1986 after obtaining her PhD degree from Industrial Toxicology Research Centre – Lucknow, India's most prestigious toxicology research institute.

Prof. Kalia has to her credit 26 years of teaching and research experience, published over 43 publications in various national and international peer review journals and over 45 presentations at various national and international symposiums and conferences.

She was awarded the prestigious "President Guide award" for her services in Bharat Scouts and Guides, awarded by His Excellence President of India. She is an associate fellow of Gujarat Science Academy and was awarded visiting fellowship of Indian National Science Academy in 1991-92 and Department of Biotechnology, Ministry of Science and Technology, Government of India in 2006-07.

She is a well traveled person, delivered Plenary lectures / Lead lectures at various international conferences at Malaysia, Singapore, Czech Republic and France. She has collaborated and received grants for more than ten major research projects from University Grants Commission, Department of Biotechnology of Ministry of Science and Technology, Govt. of India, Gujarat State Biotechnology Mission and Defense Research and Development Organization.

She is a life member of various academic and professional bodies like Indian Science Congress, Society of Biological Chemists, India (President of Local SBC Chapter of Sardar Patel University), Society of Toxicology - India, Indian Association of Micronutrients, New Delhi and Third World Academy of Women in Science, Italy.

Dr. Jaya Prasanthi - Post Doctoral Fellow

Dr. Jaya Prasanthi Rantham Prabahakara joined Dr. Zheng's Neurotoxicology Laboratory as a Postdoctoral Research Associate in School of Health Sciences, Purdue University. She obtained her Ph.D Degree in Zoology at Sri Venkateswara University, Tirupati, India in 2006. She has worked in the area of Neurotoxicology and presently interested to pursue research in Neurochemistry, Neuropharmacology, Biochemistry, Molecular Biology, Applied-Microbiology, and Immunology. She has published six research papers in various peer reviewed International and National Journals and presented sixteen research papers at various scientific symposiums and conferences.

She has been awarded Junior Scientist of the Year Award from National Environmental Science Academy, New Delhi. India in 2004, Best Research Scholar Award, S. V. University, Tirupati, India in 2003 and many other for her best paper presentations in various symposium and seminars. She is a Life member of Indian Society of Comparative Animal Physiology and National Environmental Science Academy. She is a Life member of Indian Society of Comparative Animal Physiology and National Environmental Science Academy.

Welcome to the new faculty and staff *continued*

Dr. Yanshu Zhang - Post Doctoral Fellow

Dr. Zhang received her Ph.D. from Chinese CDC in Beijing. Prior to joining Dr. Zheng's lab, Dr. Zhang was an Associate Professor in Dept of Preventive Medicine in North China Coal Medical College ,Tangshan, PRC. Her work dealt with the peripheral nerve system damage induced by occupational chemicals. Specifically biomarkers associated with n-hexane toxicity and the mechanism of n-hexane in its role of Mitochondria dysfunction and calcium homeostasis in motor cells. In Dr. Zheng's lab, she will explore the role of the choroid plexus in regulating CNS homeostasis of copper and aluminum, the metals contributing to both Parkinson's disease and Alzheimer's disease.

Cathy Beck - Office of Student Services

Cathy Beck joined the School of Health Sciences on August 28, 2006. She was previously an Academic Secretary in the Computer and Information Technology Department at Purdue.
She is from Lafayette and attended Jefferson High School and Purdue University. Cathy has a son, a daughter and five granddaughters. She enjoys spending time with her granddaughters and reading.

Dates to Remember

- ⇒ Thanksgiving Break—November 22-25
- ⇒ Finals week—December 11-16
- ⇒ Commencement—December 17
- ⇒ Holiday Break December 17-January 7
- ⇒ Classes begin—January 8

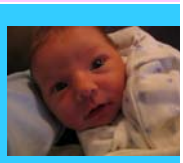
Congratulations and welcome to the HLS family!

John and Eleni Vosicky welcomed a 7 lb. 5 oz. baby girl on November 9, 2006.

Eleni and baby are doing great!

John and Eleni are former students of Dr. McGlothlin.

Congratulations to Jennifer and Ryan Burnette on the arrival of their son Hudson Elijah Miles Burnette. He was born at 7:51 pm on December 1st. He weighs 8lbs 1oz and is 20.5 inches long. Jen reports that everyone is doing well!



Shirley Xuegian Wang and Richard Zhang are the proud parents of Sophia C. Zhang. She was born on September 4, 2006. She weighed 7 lbs. 12 oz. and was 21 inches long. Welcome Sophia!

Anthony and Autumn Cagle welcomed their son Elisha David Cagle on Saturday, October 28 2006, at 6:14 pm. Elisha weighed 7 pounds, 12 ounces was 20 and a quarter inches. He is handsome and 100% healthy! Big brother Josiah (2 yrs old) is very excited, protective, and loving toward his new baby brother!

Please join us in congratulating Jessie Puryear and his wife on the birth of their new baby boy, Carson Thomas (8 pounds 8 oz and 21 1/4 inches long), born 10/22/06. Proud daddy has pictures...ask him to see his new little boy!

Congratulations and Good Luck!

Mary Ellen Gillespie has accepted a new position at Bowling Green State University in Bowling Green, Ohio. She will be the Director of Major Gifts for Intercollegiate Athletics.

She will be on the senior staff of the athletic department and will be responsible for raising funds for capital projects and building the endowment.

BGSU offers intercollegiate competition in 18 varsity sports and holds membership in the Mid-American Conference and Central Collegiate Hockey Association. BGSU is one of 13 schools in The country to compete in NCAA I-A football and Division I ice hockey and men's and women's basketball. BGSU is committed to excelling both on the field and in the classroom. This past year, BGSU received the MAC's institutional academic achievement award by posting the highest overall GPA (3.16) among the 13-league members, and the highest since the award's inception. Since 1990 the Falcons have seen 29 student-athletes earn Academic All-America honors.

Mary Ellen is an avid sports fan and is very excited about the new opportunity. She feels bittersweet about leaving Purdue since she has enjoyed her time here. Mary Ellen joined the Purdue family in July 2005 as the Director of Development for the School of Nursing and Health Sciences.

Best wishes Mary Ellen and keep in touch!

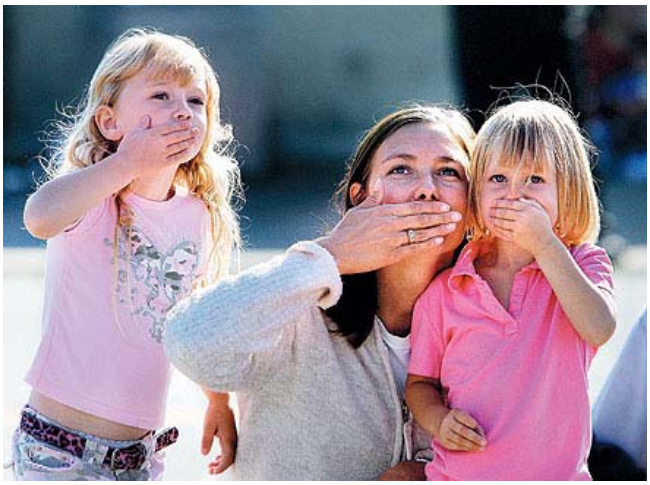
News on former students. Where are they now?

Thad Sharp, LT, MSC, USN

Radiation Health Officer

USS DWIGHT D. EISENHOWER (CVN 69)

USS Eisenhower Strike Group deploys for seven months



Danielle Sharp and daughters Morgan, 5, left, and Nina, 3, say goodbye to husband and dad Lt. Thad Sharp. Lt. Sharp is the radiation health officer aboard the aircraft carrier USS Dwight D.Eisenhower. The Sharps are from Lafayette.

The aircraft carrier Eisenhower returned to sea after a six month hiatus. It left from Norfolk, Virginia in October 2006. Lt. Thad Sharp was among the 6,500 sailors of the Eisenhower strike group. Lt. Tharp is a former grad student from the School of Health Sciences.

The USS Eisenhower will be joined by guided-missile destroyers Mason and Ramage and guided-missile cruiser Anzio. The Eisenhower began it's expected seven month tour to support the wars in Iraq and Afghanistan. They will relieve the carrier Enterprise and three other Norfolk-based ships.

The "Ike" was commissioned in 1977. It has been in the Newport News shipyard since May 2001 for an overhaul and has been getting ready for deployment for a year.

Lt. Thad Sharp's wife Danielle and their two daughters, Morgan, 5, and Nina, 3, were among the families saying goodbye to the sailors of the Eisenhower. They will live in Lafayette, Indiana until Sharp returns.

!! CONGRATULATIONS!!

"David J. Carlson received a $500 student in training (SIT) Travel Award for a poster titled "Tests of the putative mechanisms underlying the cell killing effects of low- and high- LET ionizing radiation." The poster will be presented at the 53rd Annual Meeting of the Radiation Research Society, November 5-8, 2006 in Philadelphia, PA. Mr. Carlson completed his Ph.D. in Medical Physics in August of 2006 and is now a Medical Physics Resident in the Department of Radiation Oncology at Stanford University."

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