



ABE-Notes



Funding Opportunities

Spring Grants for Study Abroad & International Learning - The Office of International Programs is pleased to announce the Spring 2007 grant competition for development of study abroad courses for Purdue students on the West Lafayette campus. This program will provide awards to individual faculty and groups of interdisciplinary faculty for the development of study abroad components for existing and/or new courses. Awards are intended as seed money, and will generally be in the range of \$5000 - \$7000. More detailed information is available at:

<http://www.purdue.edu/elist39/docs/RFPSpring2007SAILgrants.rtf>.

CSREES Announces the Availability of Grant Funds and Requests Applications for the Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program - closing

date: June 1, 2007. Funds available: \$3.5 million. Submission method:

Electronic applications through www.grants.gov. Soliciting applications for: (1)

Fellowships to train students for Master of Science and doctoral degrees in food and agricultural sciences in the Targeted Expertise Shortage Areas, and (2) for Special International Study or Thesis/Dissertation Research Travel Allowances (IRTA) for eligible USDA National Needs Fellows. See Program Brochure on the Internet at:

http://www.csrees.usda.gov/about/offices/pdfs/natl_needs.pdf.



Diversity Faculty Fellow - the time has come again for interested faculty to submit their application for consideration as a 2007-2008 Diversity Faculty Fellow. This past academic year we had one Diversity Faculty Fellow, B. Allen Talbert, professor in YDAE who successfully completed the program! Our college can support up to two faculty for the upcoming year. Each fellow will receive a \$2000 grant to revise a course by incorporating a diversity component or develop a new diversity related course. For further information contact Pam Morris, Assistant Dean/Director in the Office of Diversity at 494-8293 or via email at pmorris@purdue.edu. Note: Application deadline is by 5:00 pm., Friday, August 24, 2007!!!!

Organization for Economic and Cooperation Development (OECD) - is once again funding travel fellowships between member countries and workshop sponsorships related to OECD themes (Natural Resources Challenge; Sustainability in Practice and The Food Chain). These awards are under the "Biological Resource Management for Sustainable Agricultural Systems" program. Details of the program are available at www.oecd.org/agr/prog.

The OECD sponsors travel fellowships for Ph.D. scientists (or equivalent) between 26 member countries (Austria, Australia, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, The Netherlands, New Zealand, Norway, Poland,

Portugal, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom and United States). The average fellowship is for about ten weeks, but the range is from 2 to 26 weeks. A 5-year period is necessary between grants to the same scientist. The individuals must have a permanent position or similar post in a home laboratory to return to after the fellowship (i.e., this is not a short-term post-doc program). It is worth noting that the program is generally intended to help younger scientists gain international experience. Senior scientists are not discouraged from applying, but should recognize the need to prepare a strong application in that the program has been sponsoring fellowships for over 25 years. Approval is based largely on the scientific merit of the proposal. Emphasis is also placed on cross-discipline exchanges that strengthen relations between the scientific community and communities in general. A letter of invitation from the host country must accompany applications. Fellowships will be awarded annually through 2009 - the deadline for 2008 fellowships is September 30, 2007. Individuals receiving OECD fellowships within the past five years are not eligible. Travel for 2008 fellowship recipients cannot begin until February 15 and must be initiated by December 15, 2008 at the latest.

For questions, contact Dr. Jim Schepers (jschepers1@unl.edu or 402-472-1513), who is the national correspondent for the U.S. and one of the scientific coordinators through 2008. You can also contact Dr. John Sadler (John.Sadler@ARS.USDA.GOV) who began a term as scientific coordinator in 2007.

Budweiser Renewable Energy and Wildlife Conservation Research Prize - Anheuser-Busch and the National Fish and Wildlife Foundation are accepting applications for the Budweiser Renewable Energy and Wildlife Conservation Research Prize. The prize, which is new, will be awarded through a competitive process and will recognize and support a single innovative project that advances new technologies or practices that contribute to making renewable energy a practical energy alternative. The \$100,000 prize will be awarded in consideration of a project's ability to develop or evaluate new cost-effective renewable energy technologies or practices for industrial applications and demonstrate the measurable benefits such practices may have in advancing wildlife conservation. Eligibility for the research prize is limited to accredited post-secondary academic institutions, with preference given to those working collaboratively among different departments within an institution(s) and with public agencies and nonprofit organizations. The Request for Proposal is available at the NFWF Web site at <http://fconline.fdncenter.org/pnd/10007023/nfwf> and for additional RFPs in Environment, visit: http://foundationcenter.org/pnd/rfp/cat_environment.jhtml.

Grants – Projects Funded

Joseph Irudayaraj - \$175,000. Spectroscopy-based biosensing for pathogen detection. Center for Food Safety Engineering. 2007-2008. [PIs: Joseph Irudayaraj and Lisa Mauer; Penn State (Dr. Debroy), and USDA-ARS (Dr. Fratamico)]

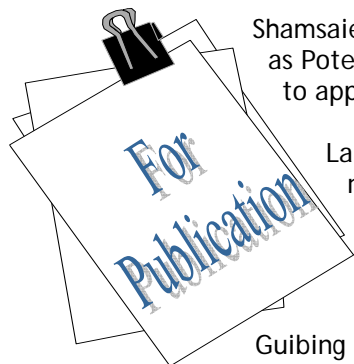
Heidi Diefes-Dux and Monica Cox - \$149,961. National Science Foundation. *Course Innovations as a Basis for Engineering Graduate Student Professional Development in Teaching.*

Michael Ladisch - \$60,000. International Energy Agency. *IEA Bioenergy: Task 41, Project 2 (Analysis and Identification of Gaps).*

Joseph Irudayaraj - \$74,039. National Institutes of Health. *Multiplex Arrays Using Confocal Raman for BRCA1 Alternative Splice Profiling.*



Papers



Shamsaie, A. and Irudayaraj, J. 2007. Intracellularly Grown Gold Nanoparticles (IGAuN) as Potential SERS Probes. *Journal of Biomedical Optics*, 12 (2), 020502: 1-3. [Selected to appear in *Virtual Journal of Biological Physics Research*, April 15, 2007 issue].

Lan, S., Yu, C. and Irudayaraj, J. 2007. Surface enhanced raman scattering based nonfluorescent probes for multiplex DNA detection. *Analytical Chemistry*. (In Press) [Selected as a featured article "No-glow tags for Raman Spectroscopy" in June 1, 2007 issue of *Analytical Chemistry*].

Guibing Chen, Osvaldo H. Campanella, Carlos M. Corvalan, and Timothy A. Haley - On-line correction of process temperature deviations in continuous retorts - accepted for publication by *Journal of Food Engineering*.

Seminars/Workshops/Lectures

International Conference of Biorefinery - Beijing, China, October 20 - 23, 2007. In the century, biobased industry producing chemicals and fuels from renewable raw materials will play an important role due to the depletion of petroleum oil, and the environmental and energy problems in the world, and biorefinery will greatly contribute to a sustainable development of the world. In the conference, there will be a forum to discuss a variety of topics and present recent scientific researches. The Social Program will also be scheduled, offering ample opportunities to renew standing friendships and forge new ones from all around the world. In addition, Beijing has four world cultural heritages including the Great Wall, the Summer Palace, the Forbidden City, and the Temple of Heaven. October is the golden time for traveling to Beijing. Participants and their families may take advantage of this opportunity to enjoy the visiting of Beijing and the delicious Chinese food.



International Congress on Biotechnology in the Pulp & Paper Industry - June 10-14, 2007 in Madison, Wisconsin. The 10th annual event will be the premier event this year for papers on biorefining, bioconversion and biopulping for the recovery of fuels, chemicals and fibers. For more information and application visit the web site at: http://www.bact.wisc.edu/ICBPPI_2007/speakers.htm.

ABE in the News

Al Heber - recently his air quality group hosted principle investigators and their staff for a week long training session for the National Air Emissions Monitoring Study, April 30 to May 4. About 30 presentations and demonstrations were given by PAAQL staff on various aspects of the study. A kickoff and celebration dinner was held on Thursday, May 3 at the University Inn. Marshall Martin, representing the Dean's Office, recognized Dr. John Thorne, Lobbyist with Crowell and Moring Capitolink in D.C., for his 7 years of work that made the study possible. The study is currently in the site setup phase at 20 farms around the country.



Student News



ABE Outstanding Students



Senior Chelsea Mohler - is a native of South Bend, Indiana and is majoring in Biological and Food Process Engineering and Pharmaceutical Science. During her time at Purdue, Chelsea has been actively involved in Purdue Student Government, Mortar Board Senior Honor Society, Iron Key Senior Honor Society and the Women in Leadership Conference. Her interest in pharmaceuticals led her to participate in two internships at Eli Lilly & Company, where she will be starting full-time as a Process Engineer in June.



Junior John Schumm - is from Tucson, Arizona and is enrolled in the college of Agricultural and Biological Engineering focusing in Biological and Food Process Engineering. John works in the Laboratory of Renewable Resources Engineering and is participating in a number of different research projects involving producing ethanol from cellulistic material. John is the President of the newly formed BEGC Club.



Sophomore Erin Rosswurm - was born in Columbus, Indiana and grew up in the country with 3 siblings. Erin has always enjoyed biology and chemistry and was excited to join the Agricultural and Biological Engineering department. Currently she is participating in Purdue's Professional Practice Program and is working at Bunge on an enzymatic refining process. Both of her parents attended Purdue and have played an enormous role in Erin's education. In the future Erin hopes to work in R&D for a bio-tech or food company in the Midwest.



Freshman Jaime Ho - from Sagamore Hills, Ohio is studying Food Process Engineering. This summer, she will begin work with Kraft Foods in Purdue's Professional Practice Program. Jaime has been active in the Society of Women Engineers, First Year Honors Engineering Program, and Honors Phone-a-thon. She recently traveled to Quebec City, Canada with the University Honors Program, as well as traveling to New Orleans, Louisiana to participate in the Ultimate Spring Break Challenge, to help with rebuilding efforts and Hurricane Katrina relief.



National Basic Utility Vehicle - A team of six Purdue ASM and one ABE students did an outstanding job at the national BUV (Basic Utility Vehicle) competition on April 27-28 in Zionsville, IN. They placed 3rd overall (receiving 77 points) and won Indy 500 qualifying or race tickets for their effort; the first place team received 80 points. There were 8 competitors in Purdue's BUV class. These students designed and built their BUV within one semester. It had 10 hp and was built using the transmission, steering column, and rear axle of a scrapped Toyota Tercel. Their front wheel drive, front wheel steer vehicle with a 6 foot flatbed performed way beyond expectations in the hill climb. In a 90 minute endurance run, Purdue earned an unofficial 2nd place. In the agility (slalom) timed course, 39 seconds won; Purdue's BUV was close at 41 seconds. There was an oral presentation to the judges which was okay, but there is room for improvement in 2008.



The Purdue ASM/ABE BUV made it through an area of the mud pit which no other vehicles traversed and might have made it completely through the mud pit, but they were the last to go. Have you ever seen a thoroughly used and abused mud pit? Purdue tied for the shortest time to complete the obstacle course, with one stake "hit", we received 2nd place. Moguls were no problem. Purdue tied for 1st in the swamp crossing with two other teams which made it through the shallow area; the driveline slipped in the middle of the deep crossing and no other BUV made it either. Only one projectile left the vehicle through the grueling day of extreme testing. There was a bent axle which came as a result of goodwill; a stuck truck was freed at lunch time. The Purdue BUV still runs but surely is in need of washing. Congratulations to the team of Ryan Zook, Ryan Fisher, Jaret Wicker, Brian Gum, Josh Stoelting, Brandt Erwin, and Joe Leedy. Many thanks to several sponsors and advisor, Dr. John Lumkes.

Graduate Student Awards -



Rebecca Davis - received the Outstanding Student Presentation in Engineering Poster Award at the 29th Symposium on Biotechnology for Fuels and chemicals.

Rebecca would like it noted that she felt that winning the award was made possible by the outstanding coaching, advising and mentoring she received in the ABE department at Purdue and from her colleagues in LORRE and Dr. Bernie Tao.



Lan Sun - was recently awarded a first place award in the Life Sciences poster competition sponsored by Sigma PI. The poster competition was in March and the poster was titled "Multiplex raman detection of DNA interactions" by Lan Sun and Joseph Irudayaraj.



Fantastic!

Outstanding Students!

ABE Outstanding Graduate Students

Both Outstanding Graduate Students are receiving their award from Professor Dirk Maier -

Outstanding PhD Student:

Madji Abou-Najm - Majdi worked on

various environmental engineering and regional planning projects in the Middle East and Africa before joining the ABE's PhD Program in August, 2005. So far, he has completed most of his course work at ABE with a cumulative GPA of 4.0. He is currently working on a unique research involving theoretical development along with experimental data verification. This work involves developing an interdisciplinary research on characterizing the cracking behavior of soils as well as the soil-water scaling problem. He has developed a new approach to assess the residual stresses in soils. An approach that is expected to have a major impact on understanding various stress related soil phenomena such as cracking and preferential flows that contribute to major water and water quality problems. As part of his RA, he worked on developing a complete teaching module titled "Scaling in Hydrologic Processes" that was tutored in different courses in ABE, AGRY, and FNR. It includes lecture material, lab assignment, and exam questions.



Outstanding M.S. Student: John

Koehler - John was born and raised in Ames, Iowa. He wanted to go to college out of state so he decided to go to Purdue University and eventually ended up majoring in ABE. In 2006 he graduated with a bachelor's degree and enrolled in the B.S./M.S. dual degree program in the ABE department. He has been conducting research on sol-gel biological materials with Professor

Rickus since the summer of 2005. His Master's project is on the development of a novel nitric oxide releasing surface. In his free time away from school he enjoys all types of sports, watching movies, traveling, napping, and his newest hobby is golfing. After graduation John has plans to work in the vaccine production department of Merck in Pennsylvania just outside of Philadelphia.



Faculty & Staff News

Braden Joe Mosier - born Friday, May 11, 2007 at 1:23 pm.

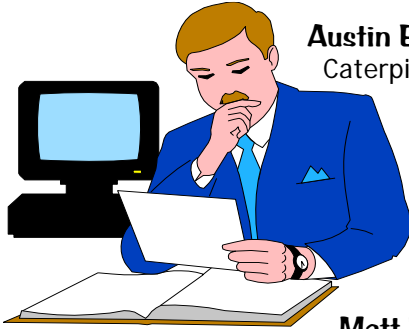
Weight: 9 lbs, 4 oz

Length: 22 inches

Mom and baby are both doing fine - so is proud papa!



Retiree & Alumni News

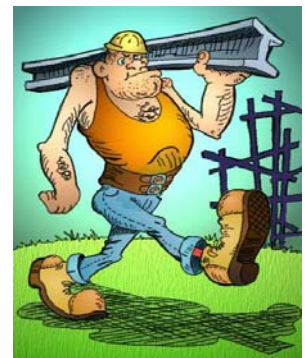


Austin Ehle (BS ABE '03) - has been promoted to Senior Design Engineer with Caterpillar. Austin has been employed with Cat since 2004 and spent two years on the WTS electrical team completing wiring and lighting designs for the Tier 3 WTS NPI programs, and managing machine control software within the WTS bill-of material. Austin spent the last year as the sole member of the monitoring and controls system team, diagnosing system problems, helping to define features for the Tier 4a NPRi programs, and increasing Cat's knowledge of machine monitoring.

Matt House (BS ABE '06) - has accepted a position with the DNR in Indianapolis and will be working with the Southern Basin Water Department.

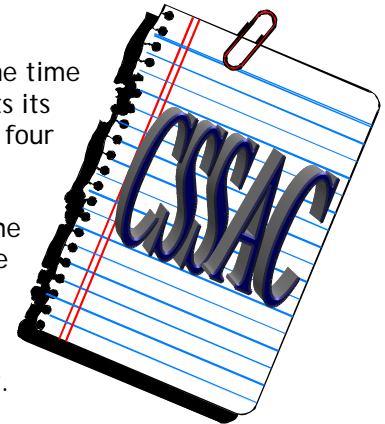
FYI

Summer Construction - for summer campus construction visit the web site at <http://www.purdue.edu/physicalfacilities/campusconstruction> - this site features the summer 2007 construction schedule.



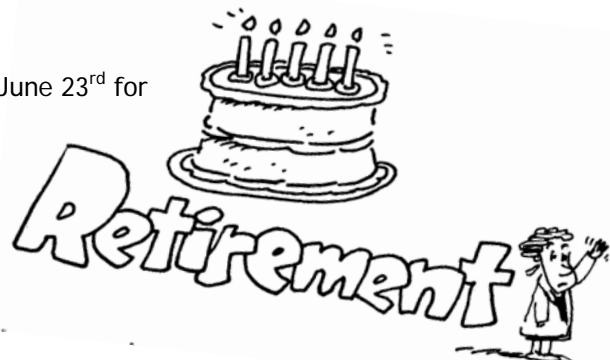
ABE Department - No parking will be allowed behind the ABE building due to masonry repairs, this restriction will be in effect until August 15.

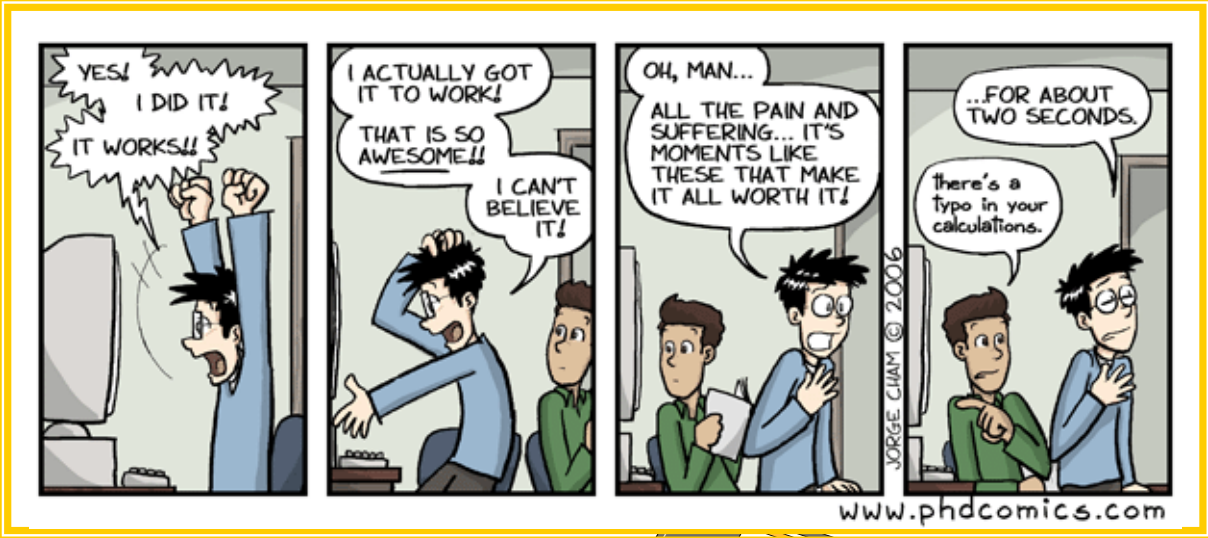
Clerical and Service Staff Advisory Committee (CSSAC) - Spring is the time when the Clerical and Service Staff Advisory Committee (CSSAC) conducts its annual membership drive. This year, CSSAC is seeking candidates for all four districts on the West Lafayette campus to fill a total of seven vacancies. CSSAC will be sending an application to West Lafayette campus clerical and service staff in these districts asking them to complete and return the form no later than May 25, 2007. The CSSAC Membership Subcommittee will then review each application and interview candidates who best fit the needs of the Committee. Successful candidates will be appointed and begin their terms in September 2007. Members serve a three-year term with approximately one-third of the membership replaced annually.



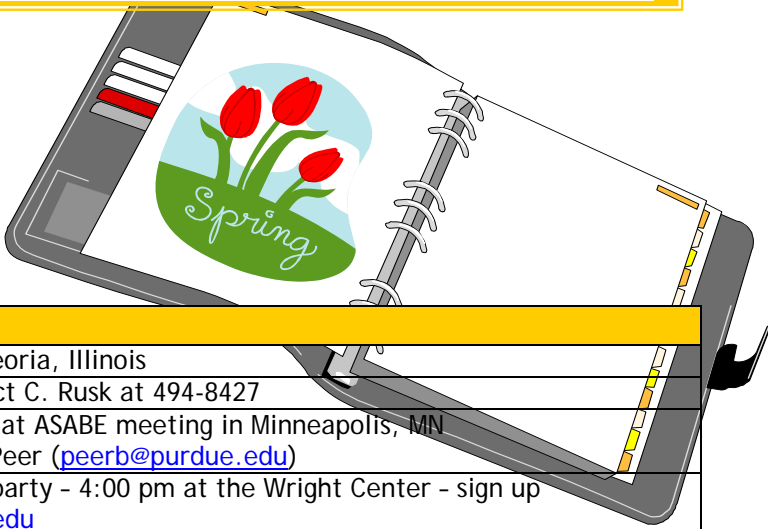
Reminder!

Mack Strickland - reserve June 23rd for a retirement party - see Becky Peer to sign up!





[Calendar](#)



June 2007	
1-3	Quarter Scale Tractor Pull - Peoria, Illinois
13-15	4-H Science Workshop - contact C. Rusk at 494-8427
19	ABE Alumni/Friends Breakfast at ASABE meeting in Minneapolis, MN 7:00 am - sign up with Becky Peer (peerb@purdue.edu)
23	Mack Strickland's retirement party - 4:00 pm at the Wright Center - sign up with Becky at peerb@purdue.edu
25-27	4-H Youth Round-up - contact C. Broady at 494-8435
28	Faculty/Staff meeting at 1:30 pm
July 2007	
4	University Holiday
August 2007	
8-19	Indiana State Fair - contact D. Kirkpatrick at 494-9113
14	Faculty Retreat to prepare for CSREES Fall 2008 Review (may be some ABET too) - location to be determined
15	Purdue Day at the State Fair
28-30	Farm Progress Show in Decatur, Illinois - contact D. Kirkpatrick at 494-9113
September 2007	
6-8	Farm World Expo in Terre Haute, Indiana - contact D. Kirkpatrick at 494-9113
15	Family Day - contact J. Alexander at 494-8480
18-20	Ohio State Farm Science Review in London, Ohio - contact D. Kirkpatrick at 494-9113
October 2007	
27	Purdue Homecoming
November 2007	
16-17	Agronomy Centennial Celebration at the Beck Center - contact K. Delp at 494-6586