

AGRICULTURAL & BIOLOGICAL ENGINEERING

Issue 12- September 26, 2007

### **Funding Opportunities**

Narsimhan, Ganesan - \$82,000 - Procter & Gamble Company. "Understanding Mechanism of Foam Stabilized by Protein/Biomacromolecule". July 2007.

**Porterfield, David** - \$19,530 - University of Alabama at Birmingham. "Studies of Nitric Oxide Biochemistry in Cardiovascular Physiology Using Self Referencing No Sensor Technology. July 2007.

**Grant Funded** - National Science Foundation \$600,000 "Purdue Scholarship Program in Quantitative Physiology" PI: E. Bartlett, Co-PIs: J. Rickus, A. Rundell, K.Otto, R. Shi, E. Nauman, G. Buzzard. This is a multi-school scholarship program to fund undergraduate and graduate student who are high potential but financially needy. The program will utilize a peer recruiting component to recruit and increase underrepresented populations. ABE will be one of several targeted majors to participate in this scholarship and interdisciplinary research program.

**New Grant** - A new international program on biodiversity and sustainable agriculture - for more information visit: <a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-TW-08-003.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-TW-08-003.html</a>.

**USDA CSREES NRI** - for detailed information visit the web page at: <a href="http://www.csrees.usda.gov/funding/nri/nri.html">http://www.csrees.usda.gov/funding/nri/nri.html</a> - note that letters of intent are required for some programs, some as early as October 9<sup>th</sup>.

**Annual Showalter Trust Competition** - proposals are for one year with a project period of July 1, 2008 - June 30, 2009. All guidelines, procedures, and instructions are available on the web at: http://www.purdue.edu/research/vpr/funding/showalter.html.

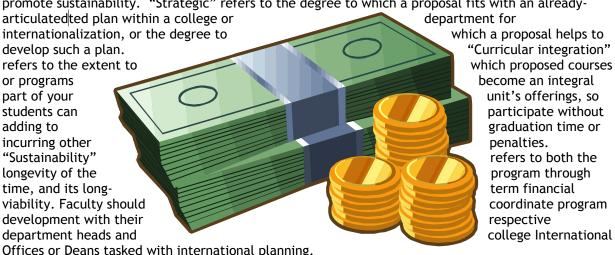
**Agricultural Research Fund Scholarship derived from the Martin Endowment** - guidelines, proposed research form and mentor's recommendation are available at: <a href="http://www.agriculture.purdue.edu/arp/For\_Faculty\_Staff/Index.html">http://www.agriculture.purdue.edu/arp/For\_Faculty\_Staff/Index.html</a>. Please note: ONLY electronic applications will be accepted.

**APSAC** - the Professional Development Subcommittee of APSAC is pleased to announce its fall 2007 Individual Professional Development Grant - grants up to \$500 are available, for more information visit: <a href="http://www.purdue.edu/hr/apsac/grantgeneral.htm">http://www.purdue.edu/hr/apsac/grantgeneral.htm</a> - deadline to apply is October 1, 2007.

Fall Grants for Study Abroad and International Learning - The Office of International Programs has announced the fall 2007 grant competition for development of study abroad courses for Purdue students on the West Lafayette campus. Through resources provided by the Office of the President to increase study abroad participation, 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. Priority will be given to those units not already funded through our programs.

Awards are intended as seed money, and will generally be in the range of \$5000-\$7000. This year's

grant competition is intended to support strategic initiatives within and across academic units to develop overseas educational programs and to integrate these into our curriculum in ways which promote sustainability. "Strategic" refers to the degree to which a proposal fits with an already-



For this competition, interested faculty should submit a three-page proposal by October 12. From these submissions, our office will select a subset of workable proposals and meet individually with faculty investigators to develop a detailed proposal for final acceptance and grant award by November 16.

A proposal should include the following:

- A description of the program or course being proposed and where it fits in the curriculum;
- An explanation of how this program or course fits into a departmental strategic plan for internationalization:
- An outline and timeline of the activities to be undertaken under the grant, together with the names of the faculty members responsible for these activities;
- A projection of the number and type of students who will participate in the program;
- A discussion of how the program will be made sustainable; and
- A budget.

Grant funds are for the development of new study abroad initiatives. Such initiatives are normally expected to continue through time without additional financial support from International Programs, although exceptions are sometimes made for special circumstances. These funds are not intended for student support. Funds for student travel grants are applied for separately, by the students themselves, and are administered through our Office of Study Abroad. The process is easy and straightforward, and more information can be obtained from Dr. Brian Harley, Director of Programs for Study Abroad. Faculty or Departments interested in submitting a proposal should attend the university wide Study Abroad Workshop on September 27<sup>th</sup> in GRIS 170, 2:30-4:00, which will provide an overview of the study abroad process, the proposal process, and a Q & A session. Completed proposals should then be submitted electronically as an MS Word file to Dr. Gillespie (andyg@purdue.edu) any time before or on Oct. 12, 2007.

**Dean's Scholar Program** - a request for proposals for new courses to be taught during Maymester '08, Summer '08 Fall '08 and Spring '09 Maymester '08, Summer '08 Fall '08 and Spring '09. Proposals will be reviewed by the College Honors Committee and recommendations for funding will be sent to Dr. Whittaker. Up to \$5000\* per course will be provided to the instructor for discretionary use.

NOTE: This solicitation is for the entire 2008-2009 year, beginning with summer session 2008 - Due Date October 15, 2007.

Proposals are due to the Office of Academic Programs by 5:00 p.m. on October 15, 2007. Review of the proposals and awards will be made within one month of the due date.

#### **Proposal Requirements for New Courses**

Proposals should include the following:

- Standard course proposal
  - Catalog Information: Title, Semester(s) offered, Class/Lab hours, Credits, Prerequisite(s), Description (<150 words), Instructor(s)</li>
- Expected Student Learning Outcomes
- Justification and Level of Course (priority given to introductory courses)
- Grading
- Text(s)
- Syllabus or schedule
- Designation as 275H or 475H level course

In addition, please address the following questions:

- What uniquely makes this course an Honors Course?
- What components of the course give it broad appeal?
- How would you publicize the course so as to encourage students from outside your department to enroll?
- How will specific opportunities in the course help students develop written and oral communication skills?

Guidelines for College of Agriculture Honors Courses

- Restricted to students who qualify for the Dean's Scholars or other Purdue Honors Programs (preference given to College of Agriculture students)
- Course taken by permission of instructor
- Student to faculty ratio < 25:1
- All aspects of course led by faculty
- Preference will be given to courses with an interdisciplinary component and without prerequisites
- Significant written and oral presentation components
- \* The following amounts are available for NEW courses:

\$5000.00 for three-credit course

\$3500.00 for two-credit course

\$2000.00 for one-credit course

**Current Courses with Added H Division -** College of Agriculture faculty members are encouraged to develop honors divisions for existing courses. For example, AGRY could offer a new division of AGRY 255H while still offering the course in the usual manner. Existing courses offered as honors courses should follow the same principles as new courses (see above). Under Proposal Requirements faculty must justify the honors designation. Funding requests (\$500 - \$1000) to support new honors divisions for existing courses should be sent directly to the Associate Dean for Academic Programs. These will be considered by the College Honors Committee for funding and consideration for Honors designation.

Mission-Oriented, Internal Competitive Grant Opportunity - An essential component of Purdue University's land grant mission is to conduct applied research and disseminate science-based

information to our diverse stakeholders. To better integrate extension programs in Indiana, last year we established an grants program. The intent is to encourage the applied research and extension programs within and departments in the College of Agriculture. We are again this year an opportunity for faculty to apply for mission-oriented grants. Consideration will be given oriented grant proposals that clearly address at least seven key initiatives outlined in the Indiana State Department of Agriculture's Strategic Plan. These are

in the request for proposals and more detail may be http://www.in.gov/isda/strategic\_plan/index.html. priority consideration will be given to integrated research

especially specialty crops; food processing; or increased hardwood production, including environmental impacts.

our applied research and internal competitive integration of among pleased to offer these to missionone of the highlighted found at: This year high and extension mission-oriented grant proposals that address diversification of agriculture,

Approximately \$250,000 will be available for competitive grants not to exceed \$25,000 each. Grant funds may be used to cover in-state travel to research sites, expendable research materials and supplies, extension publication and website development expenses, student and part time hourly wages, faculty summer salaries or graduate student stipends. Funding for approved proposals will be for the 2008 calendar year only. If funds are to be used for graduate assistantships, grant recipients are reminded that there is no guarantee of support in subsequent years, and they will need to make arrangements for alternative funding sources for supporting graduate students in subsequent years. The mission-oriented grants do not cover tuition waiver or fringe benefits. The grant proposal should be submitted electronically as an email attachment to Jessica Crum (jcrum@purdue.edu) no later than 5:00 pm Monday, November 5, 2007. Notification to the grant recipients will be made by January 2008. Any questions should be directed to Marshall Martin (marshallmartin@purdue.edu) who is serving as the mission-oriented, internal competitive grants program coordinator.

## <u>Papers</u>

Ninan, L., R.L. Stroshine, J.J. Wilker, and R. Shi. 2007. Adhesive strength and curing rate of marine mussel protein extracts on porcine small intestinal submucosa. Acta Biomaterialia 3(5):687-694.

> Wang, J. and Lu, C. Single molecule  $\lambda$ -DNA stretching studied by microfluidics and single particle tracking. Journal of Applied Physics, accepted.

> > Indrawati, Linda, R. L. Stroshine, and G. Narsimhan. 2007. Low-field NMR: A tool for studying protein aggregation. Journal of the Science of Food and Agriculture 87:2207-2216.

### 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.

**Modia Training for Faculty** - Agricultural Communications will be holding media training for faculty on Tuesday January 15 - tentatively scheduled for 8:00 am to 12:00 noon in Pfendler's Deans Auditorium. New faculty is urged to attend, and all interested are welcome.

National Grant-writing Seminar - by Dennis Savaiano on Thursday,
November 1<sup>st</sup> from 8:00 am to 4:30 pm. Faculty who wish to participate in
this one-day training should contact Janet Perkins at <a href="mailto:perkinje@purdue.edu">perkinje@purdue.edu</a> for
more information.

**Dr. Chris Bell** - On Thursday September 20<sup>th</sup>, Dr. Chris Bell, Research Scientist Fellow of the Central Science Laboratory (CSL) in Sand Hutton, United Kingdom visited the Post-Harvest Education & Research Center and presented a seminar entitled *Factors affecting the efficacy of Sulphuryl Fluoride (SF) and other fumigants for post-harvest stored product protection.* Dr. Bell's most recent research contributions have been in the area of sulfuryl fluoride fumigation, which has facilitated the introduction and adoption of SF around the world for post-harvest stored product protection applications. He recently retired from CSL but is still active as a research consultant and serves as regional editor for the Journal of Stored Products Research. About 20 faculty, staff and students from the departments of Agricultural & Biological Engineering, Agricultural Economics, Botany & Plant Pathology, and Entomology as well as two representatives from Fumigation Service & Supply and Insects Limited (Westfield, Indiana) attended the seminar and participated in an interesting discussion and idea exchange.

### ABE in the News/Awards/State Fair

**Millionaires Club Award** - the Millionaires Club recognizes personnel in the College of Agriculture who have been awarded a \$1M or higher grant during FY 2006-2007 - congratulations to ABE faculty Natalie Carroll, Albert Heber and Michael Ladisch who will be recognized in a ceremony at 2:00 pm in Pfendler Gallery on September 28<sup>th</sup>.

**Purdue Today** - September 14<sup>th</sup> issue featured an article entitled "Purdue take another step in using biofuel at power plant" written by Clyde Hughes with the help of Klein Ileleji.



ABE At Indiana State Fair - Breaking New Ground Outreach Program and the Purdue Health and Safety Program participated in the 2007 Indiana State Fair in Indianapolis with three displays. The display in the Young Farmer's Building showed a grain bin with a person trapped along with a DVD explaining the hazards of moving grain and how to avoid them.



TIGOT-WAR TIGOT-WAR

The display in the FFA Building also addressed grain bin safety using the Grain Bin Tug-of-War. It asked participants if they can will a tug-of-war with grain. The participant then pull on a rope extending out of the top of a grain bin and see if they can pull 325 pounds which will extract a 165-pound person waist deep in flowing grain. Very, very few were able to pull the weight.

The display in the Farm Bureau Building provided information on methamphetamine production and the dangers, the HOSTA project (Hazardous Occupational Safety Training in Agriculture), a John Deere tractor with a Life Essentials Lift, Arthritis and Agriculture, Caregiving in the Heartland, and Breaking New Ground resources.



Jenna Rickus - has been invited to present at the 2007 Center for Integration Medicine and Innovative Technology (CIMIT) Innovation congress on November 14 in Boston, Mass. She will also participate in a panel discussion on neurotechnology - see <a href="http://www.cimit.org/innovationcongress.html">http://www.cimit.org/innovationcongress.html</a> for more information.

ABE Attends Farm Progress Show - Breaking New Ground and the Purdue Health and Safety Program participated in the 2007 Farm Progress Show in Decatur, Illinois. The displays were in the Health and Safety Tent and included the John Deere Tractor with the Life Essentials lift, Arthritis and Agriculture, the HOSTA Project, and Breaking New Ground. In addition, Steve Swain the Rural Rehabilitation Specialist for Breaking New Ground Outreach Program was interviewed by Max Armstrong and Orion Samuelson from WGN radio in Chicago.



#### BioTown, USA Exchange Mission to Germany's BioVillage in Juehnde (Bioenergiedorf Juehnde)



- Klein Ileleji recently embarked on a trip with representatives from Indiana's BioTown, USA in Reynolds, IN and Indiana's State Department of Agriculture to Germany from September 17-22, 2007, to meet with residents of Bioenergy Village in Juehnde. Juehnde is Bioenergy Village, the German version of Indiana's very own BioTown, USA in Reynolds. With nearly 750 residents, Juehnde is the first village in Germany to produce its complete heat and electricity supply from bioenergy. Klein was representing Purdue as part of the nine member delegation to learn from partners and stakeholders of the Bioenergy Village in Juehnde which included the Center of Sustainable Development at the University of Goettingen, German Agency for Renewable Resources (FNR) and the German Ministry for Food, Agriculture, and Consumer Protection (BMELV). Klein's class ABE591K - Biomass Feedstock Systems Engineering has been involved in two service learning projects with BioTown USA and is a member of the Biotown Development Authority board. For more information on the trip, visit the daily blog at http://www.biotownusa.com.



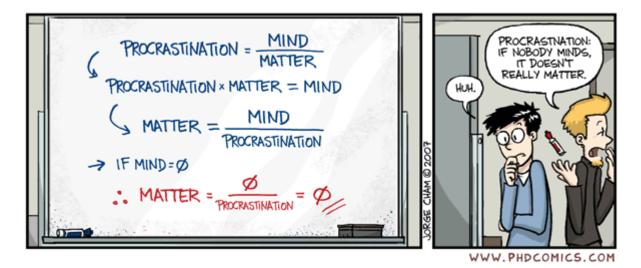
Berry M. Goldwater Scholarship - detailed information at: http://www.act.org/goldwater - deadline for applications is Friday, November 16.

Chainless Challenge - Trista Bailey, Pete Rummel, Ben Heber, and Brandon Bechtel recently participated in the Parker Hannifin Corporation sponsored Chainless Challenge. The team received the award for most creative and innovative design and received \$2,500 for the department.

**Ben Dietrich** - was elected Vice President of the Co-Op Student Association.

**Student Grant Program** - Funds are available to provide grants to students, or student organizations for work on community service learning projects. The program goal is to expand the community involvement of Purdue students in partnership with communities, non-profit agencies, schools and governmental bodies. For more information visit:

http://www.purdue.edu/engagement/service\_learning.shtml - Applications are due for the fall semester projects on or before September 14, 2007 and for the spring semester projects on or before February 1, 2008.



Bioethics Essay Contest - submit a 1000 or 1200 word, original essay on a bioethics topic of your choice by November 1, 2007, to be part of this year's contest. Five semifinalists will be selected by January 7, 2008 - all semifinalists will be given complimentary registration to the 2008 annual meeting of the Institute of Biological Engineering to be held March 6-9, in Chapel Hill, North Carolina. At the 2008 EBE meeting, the semifinalists will read their essays and the finalists will be selected. Cash awards are \$150 for first place, \$100 for second place and \$75 for third place. For more information visit the web site at: www.ibe.org.

Student Soubean Product Innovation Competition - for more information visit the web page at: http://www.agriculture.purdue.edu/agcomm/agnews/public/story.asp?newsid=1839 - this contest is co-sponsored by Purdue Agriculture and the Indiana Soybean Alliance and challenges teams of three to four students to invent new, environmentally friendly products from soybeans.



Purdue Counseling & Guidance Center - call 494-9738 or visit the web at: <a href="http://www.edst.purdue.edu/pcgc">http://www.edst.purdue.edu/pcgc</a>.

**Clarian Arnett Occupational Health Services** - has moved and is now located at the former Lafayette Eye Center building on Rome Drive.

**Gary Krutz** - has a new fishing buddy! Frederick William Greene, born September 11<sup>th</sup> weighing 8 pounds 2 ounces - Congratulations!





John G. Miller - author of "Personal Accountability and the QBQ" will talk on Wednesday, October 17, at 10:15 a.m. in Loeb Playhouse, Stewart Center. This lecture is presented by the Administrative Professional Staff Advisory Council (APSAC), Purdue Extension Services and Human Resource Services. Miller is the best selling author of QBQ! The Question Behind the Question and Flipping the Switch...Unleash the Power of Personal Accountability. His humorous and captivating style makes it easy to take away a practical message applicable for everyday use. This annual fall professional development lecture is open to all Purdue employees free of charge. For further information, visit APSAC's website at <a href="https://www.purdue.edu/apsac">www.purdue.edu/apsac</a>.

**United Way -** Purdue's United Way Campaign kicked off last week with the theme "We Matter" - faculty and staff should receive pledge packets soon, if they don't already have them.

**Social Security Numbers (SSNs)** - the Provost's Office has mandated the removal of non-required Social Security Numbers (SSNs) from campus computing systems. Hopefully, you have taken the time to clean up or remove known locations of SSNs, if not you need to take action immediately. To assist you with this process the Engineering Computer Network (ECN) has developed an automated scanning tool that attempts to identify files containing SSNs on ECN supported desktops and servers.

This tool is currently scanning computer systems within your department. If the tool identifies any of your files as potentially containing SSNs you will receive a follow up email containing further instructions.

Please remember that this tool, though intended to help you through this process, is capable of identifying many, but not all, files containing SSNs. It is your individual responsibility to eliminate or secure SSNs on all of your computers and accounts.

If your department is using SSNs for a legitimate purpose work they must be secured and an exception to the mandate requested. Your department's computer support staff or ECN can assist you with this process.



For assistance securing and scanning personally owned or unsupported systems visit the following SecurePurdue web sites: <a href="http://www.purdue.edu/securepurdue/">http://www.purdue.edu/securepurdue/securepurdu

# <u>Calendar</u>

September 2007  26 Master Planning Process - 7:00 pm Class of 1950 Lecture Hall Room #224  29 Purdue Football - vs Notre Dame (Home Game)  October 2007  2 Faculty/Staff meeting ABE #301 at noon 2 College of Agriculture Career Fair - PMU - contact L. Barber at 494-8470  6 Purdue Football - vs Ohio State (Home Game)	4
Lecture Hall Room #224  29 Purdue Football - vs Notre Dame (Home Game)  October 2007  2 Faculty/Staff meeting ABE #301 at noon  2 College of Agriculture Career Fair - PMU - contact L. Barber at 494-8470  6 Purdue Football - vs Ohio State (Home Game)	<u></u>
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6 Purdue Football - vs Ohio State (Home Game)	
7 College of Agriculture Scholarship Banquet - PMU - contact L. Barber at 494-8470	
13   Purdue Football - vs Michigan (Away Game)	
16 Faculty/Staff meeting ABE #301	
20 Purdue Football - vs Iowa (Hall of Fame Weekend) - (Home Game)	
24-27 National FFA Convention in Indianapolis - contact T. Egger at 494-8470	
27 Purdue Football - vs Northwestern (Homecoming/Varsity P Club Weekend) - (Hom	ie
Game)	
28-30 ABET visit	
30 Faculty/Staff meeting ABE #301 (ABET visit)	
November 2007	
3   Purdue Football - vs Penn State (Away Game)	
10 Purdue Football - vs Michigan State (Home Game)	
13 Faculty/Staff meeting ABE #301	
14 PCARET State Conference - contact T. Rogers at 494-8489	
16-17 Agronomy Centennial Celebration at the Beck Center - contact K. Delp at 494-658	36
17 Purdue Football - vs Indiana (Away Game)	
27   Faculty/Staff meeting ABE #301	
December 2007	
11   Faculty/Staff meeting ABE #301	