Projects Funded

Dr. Jenna Rickus and Dr. Raghu Mirmira (IU School of Medicine) - $10,000. “Biosilicification of Pancreatic Islets for Transplantation” Funded by the Indiana CTSI Purdue Project Development Team.

Dr. Jenna Rickus and Dr. Marshal Porterfield - $50,000. “Silica Entrapment of Biofilms in Membrane Bioreactors for Water Regeneration” Funded by the Army Research Office Habitation Sciences Program

Funding Opportunities

The OVP Research website - includes a link entitled Funding Resources, which may be found at http://www.purdue.edu/Research/vpr/funding/funding_resources.shtml. This link includes two sections: “E-mail Alerts” and “Search Tools.”

ARRA (stimulus) funding and limited submissions - Information for Purdue researchers about ARRA funding opportunities and requirements may be found at http://www.purdue.edu/Research/vpr/recovery/index.shtml.

Air Force FY2010 Young Investigator Program (YIP) – deadline July 28
https://www.fbo.gov/index?s=opportunity&mode=form&id=1e292f8b5776c177ceba1b0f9f6052f2&tab=c ore6_cview=0&ck=1&au=0&ck= The AFOSR’s Young Investigator Research Program (YIP) is to support scientists and engineers who have received Ph.D. or equivalent degrees in the last five years (on or after 1 May 2004) and who show exceptional ability and promise for conducting basic research.

NSF International Research Network Connections (IRNC) – deadline August 21
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503382
The IRNC program supports international research network connections across three areas: Production network environments (IRNC:ProNet); Experimental networking activities in support of cyber-science applications (IRNC:Exp); and special projects including advanced network development, deployment, security, monitoring, and other approaches (IRNC:SP).
**NIH Medical Rehabilitation Research Resource (R24) – deadline October 1**
[http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-09-013.html](http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-09-013.html) The aim of this FOA is to create a national network of research cores that provide access to collateral expertise in biomedical, behavioral, and/or psychosocial fields that are particularly relevant to medical rehabilitation research. Applicants should propose a program of research resources and collaborative opportunities in a specific content area. This may be accomplished through a combination of didactic interactions (workshops, courses, written material, and websites), consultations, and pilot funding.

**NSF Emerging Frontiers in Research and Innovation (EFRI)**

**NSF Alan T. Waterman Award** - nomination deadline November 5 - [http://www.nsf.gov/od/waterman/waterman.jsp](http://www.nsf.gov/od/waterman/waterman.jsp) The annual award recognizes an outstanding young U.S. researcher in any field of science or engineering supported by the NSF (mathematical, physical, biological, engineering, social, or other sciences).

**NSF Research Experiences for Undergraduates (REUs) - deadline October 22** - [http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517) The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. This solicitation features two mechanisms for support of student research: (1) REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department, or on interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. A partnership with the Department of Defense supports REU Sites in DoD-relevant research areas. (2) REU Supplements may be requested for ongoing NSF-funded research projects or may be included as a component of proposals for new or renewal NSF grants or cooperative agreements.

[http://npires.nasaprs.com/external/solicitations/summary.do?method=init&solid=%7b8AA62753-0F6B-3791-4A43-3DE562FA257%7d&path=open](http://npires.nasaprs.com/external/solicitations/summary.do?method=init&solid=%7b8AA62753-0F6B-3791-4A43-3DE562FA257%7d&path=open) This NRA solicits foundational research in support of the Aeronautics Research Mission Directorate, and covers a variety of topics in aeronautics fundamental research that are being pursued by NASA personnel. Specific research thrusts are outlined in the Appendices. A major focus of this NRA is to encourage collaboration between other organizations and NASA to help achieve specific goals in a variety of foundational aeronautics research programs. The announcement solicits fundamental research proposals for the four programs within ARMD: 1. Airspace Systems Program; 2. Aviation Safety Program; 3. Fundamental Aeronautics Program; 4. Aeronautics Test Program.

**ARRA (stimulus) funding and limited submissions** - Information for Purdue researchers about ARRA funding opportunities and requirements may be found at [http://www.purdue.edu/Research/vpr/recovery/index.shtml](http://www.purdue.edu/Research/vpr/recovery/index.shtml). New ARRA funding opportunities are posted on this site as they are issued by the sponsors.
Publications/Papers/Presentations

Srinivasulu Ale, Laura Bowling, Jane Frankenberger, Sylvie Brouder and Eileen Kladivko - The influence of climate variability, drain spacing and operational strategy on drainage water management system performance. Vadose Zone Journal special issue on 'Artificial Drainage', In Press.


Thomas R. Stratton, Jenna L. Rickus, and Jeffrey P. Youngblood - "In vitro biocompatibility studies of antibacterial quaternary polymers” Biomacromolecules.


K.E.Ileleji and A.R.P.Kingsly - attended and presented the following posters at the Invited Poster Session of International Fine Particle Research Institute Meeting at Ann Arbor, Michigan on July 1, 2009. “Moisture solids interactions in corn distillers dried grains with solubles (DDGS)” and “Evolution of particle caking in corn distillers dried grains with solubles (DDGS)”.


**ABE News**

**ABET Changes** - An important change in our undergraduate engineering degree programs has been recently finalized. Beginning in August 2009, our BS Agricultural and Biological Engineering (BS ABE) degree will be split into two degrees: BS Agricultural Engineering and BS Biological Engineering. We began offering the BS ABE degree in August 1997 (had been BS Agricultural Engineering prior to that). Students in the Biological and Food Processing area will pursue the BS Biological Engineering degree while students in Machine Systems and the Environment and Natural Resources areas will pursue the BS Agricultural Engineering degree. The splitting of the BS ABE into two degrees helps us align with ABET criteria. Most importantly though, this split will allow us to maintain the comprehensive nature of our programs while providing continued opportunities to improve and grow. Our Agricultural Systems Management degree (previously Agricultural Mechanization) remains the same.

Professor John Lumkes traveled with four ABE students (Austin Bello, Craig Blough, John Gibson, and Jacob Oswalt) - from May 17-26 to Bangang, Cameroon to assist the African Centre for Renewable Energy and Sustainable Technology (ACREST, www.acrest.org) with developing affordable transportation for rural areas in Africa. During the Spring semester the students were members on a student design team advised by Dr. Lumkes. The team focused on designing and building a basic utility vehicle (BUV) for developing countries (www.drivebuv.org), with an emphasis on vehicle use in Cameroon. In addition to the transportation project the Purdue group also helped with renewable energy projects including wind and water electricity generation, and pressing oil from local seeds (jatropha, castor, and avocado) for use as a renewable biofuel source for the vehicles.
During their time in Cameroon the Purdue group repaired and improved a demonstration BUV for ACREST, sketched designs for a cross-flow hydroelectric turbine, discussed the formation and layout of a local micro-factory to produce BUVs using local parts, participated in the national day festival and a funeral celebration, ate a wide variety of local foods, met with faculty and staff at the University of Dschang, hiked to several waterfalls, and made lasting friendships with the members of ACREST. The trip was a joint effort with college of Agriculture, the college of Engineering, ACREST, the Institute for Affordable Transportation, and the Agricultural and Biological Engineering department.

The goal is to continue developing a sustainable partnership with ACREST in the areas of affordable transportation, renewable fuels, sustainable agriculture and food preservation, wind and hydro energy generation using appropriate technology for local villages, and soil and water environmental projects. If you or someone you know is interested in getting involved, please contact Professors John Lumkes (lumkes@purdue.edu), Klein Ileleji (ileleji@purdue.edu), or Rabi Mohtar (mohtar@purdue.edu) for more information. Student of all levels from engineering, agriculture, and management are welcome to participate. There are also opportunities for summer internships working on-site at ACREST.

Chad Martin - Windiana 2009 conference was held in Indianapolis on July 21 - 22th and was hosted by the Purdue Energy Center and the Indiana Office of Energy Development. ABE Renewable Energy Extension Specialist, Chad Martin served on the planning committee for the event which was coordinated by the Purdue Office of the Vice President of Research. The conference drew about 640 people from not only Indiana, but representatives from the International community. This is nearly three times the crowd which participated in last year’s inaugural event. Topics included local government and landowner planning for large wind farm development, integrating existing businesses within the wind industry supply chain, and small/community wind project development. Martin coordinated and led the panel discussion on small and community wind feasibility which showcased examples from around the state. Purdue Extension provided a booth display which distributed well over 300 renewable energy publications to participants. Extension team member Curt Emanuel of Clinton County Extension was on hand to provide insight to participants. Martin and Emanuel also led a contingency of participants on wind farm bus tours in Benton County which was hosted by BP Alternative Energy. The conference will likely continue its growth and evolve as a result of the robust growth of Indiana’s wind industry. The American Wind Energy Association recently ranked Indiana as the fastest growing wind energy state in the country.”
**Dr. Klein Ileleji** - recently spent three weeks (May 24 to June 16) at the State Key Lab for Clean Energy Utilization (CEU), Zhejiang University in Hangzhou, P.R. China. While in China, he worked with colleagues there on the logistics of biomass to power plants for electric generation. Like the U.S., China has a growing interest in utilizing biomass for biofuels and biopower production. One of the areas of focus is the production of electricity and steam in 100% biomass fueled plants.

On this trip, Dr. Ileleji worked closely with Prof. Qinhui Wang and his graduate student, Hongde Yu on the supply logistics of transporting and feeding three biomass types to a 100 MW located in Zhanjiang city, Guangdong Province (south of China, close to Hong Kong). Part of this work will be presented in a poster session at the Bioenergy Engineering conference in Bellevue, Washington, October 11-14, 2009.

During Dr. Ileleji’s visit, Dr. Gore, Director of Purdue’s Energy Center also visited the CEU to promote collaboration in energy related research between faculty from Purdue and Zhejiang. Both visits were part of a sponsored program (Program 111) to host foreign faculty from various disciplines in the area of energy at CEU. Program 111, is a five year program aimed at supporting collaborative research exchange through short-term visits at Zhejiang University by faculty and their graduate students from U.S. and European universities.

Here is a photo of Doctors Ileleji and Gore with faculty and staff from the State Key Lab for Clean Energy Utilization (CEU) as Zhejiang University during their visit in June 2009”.

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**Student News**

![Photo of students](image)

**Amanda Alberg, James Bartlett, Craig Cessna, Anne Dare, Nathaniel Kempfert, and Andrew Pursifull** - from the ASABE student chapter traveled to Reno, Nevada for the 102nd Annual International Meeting. While at the meeting, students showed support for one another at technical and poster presentations, attended council meetings, and networked with faculty and professionals. The ASABE student chapter would like to extend their thanks to Dr. Engel and all of those who have supported the organization throughout the year, and make opportunities such as these possible.

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**Alumni News**

**Karen Lewis (BS ABE ’01)** - will be starting law school in Illinois in August.

**Jim Sell (BS ABE ’69)** - has been elected President of the Purdue Alumni Club of Hendricks County. Jim reports that there are 1,266 Purdue Alumni Members in Hendricks County - Hail Purdue!
Toni Trepanier-Torsell (BS ABE ’06) and Chris Torsell (BS ABE ’06) - welcomed a new member to their family! Logan Thomas Torsell was born on June 19; he weighed 6 pounds and 13 ounces and was 19.5 inches long. Chris is an engineer for Clarion Packaging and Toni is a design engineer for Hagie Manufacturing which makes agricultural sprayers and detasslers.

Bruce McKenzie (BS ABE ’50 and Professor Emeritus) - was recently selected as a 2009 Honorary Master Farmer. Purdue University College of Agriculture is a proud sponsor of this award which dates back to 1968 and recognizes a select group of outstanding Indiana farmer and farm families.

FYI

Chocolate Winery Tour - the Clerical and Service Staff Advisory Committee and Purdue Employees Activity Program are hosting a Chocolate Winery Tour on Saturday September 12, 2009. The bus will leave from FREH at 8:00 am and will return at approximately 6:30 pm. Cost is $45.00 per person. For additional information contact Dana Beck at dsbeck@purdue.edu or 765-494-0709.

Thursday, September 10, 2009

Student Contact Session & Welcome Back Picnic

Student Contact Session
3:30 pm to 5:15 pm – ABE #301
Come Meet Potential Employers At This Mini Job Fair Just For ABE Students!

Welcome Back Picnic
5:30 pm in ABE #106
Come join us for food, freebies, friends and fun!
## Calendar 2009

### August 2009
- 7-23 Indiana State Fair - contact D. Kirkpatrick at 494-9113
- 7 Purdue Day at the Indiana State Fair
- 8 Commencement - College of Agriculture at 9:30 am
- 31 Faculty-Staff Meeting - 11:30 am - ABE #301

### September 2009
- 5 Football - Purdue vs Toledo @ Purdue
- 12 Football - Purdue vs Oregon @ Oregon
- 14 Faculty-Staff Meeting - 11:30 am - ABE #301
- 19 Family Day
  - Football - Purdue vs Northern Illinois @ Purdue
- 22-24 Ohio State Farm Science Review in London, Ohio - contact D. Kirkpatrick at 494-9113
- 26 Football - Purdue vs Notre Dame @ Purdue
- 28 Faculty-Staff Meeting - 11:30 am - ABE #301

### October 2009
- 3 Purdue Homecoming - Purdue vs Northwestern @ Purdue
- 9-10 Biochemistry 75th Celebration - contact K. Trimble at 494-1636
- 10 Football - Purdue vs Minnesota @ Minnesota
- 17 Football - Purdue vs Ohio State @ Purdue
- 19 Faculty-Staff Meeting - 11:30 am - ABE #301
- 21-24 National FFA Convention in Indianapolis - contact T. Egger at 494-8470
- 24 Football - Purdue vs Illinois @ Purdue
- 31 Football - Purdue vs Wisconsin @ Wisconsin

### November 2009
- 2 Faculty-Staff Meeting - 11:30 am - ABE #301
- 7 Football - Purdue vs Michigan @ Michigan
- 14 Football - Purdue vs Michigan State @ Purdue
- 16 Faculty-Staff Meeting - 11:30 am - ABE #301
- 21 Football - Purdue vs Indiana @ Indiana
- 30 Faculty-Staff Meeting - 11:30 am - ABE #301

### December 2009
- 14 Faculty-Staff Meeting - 11:30 am - ABE #301