



Office of International Programs *Monthly Newsletter*

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OIP announces 2012 Scholars of the ACES Academy for Global Engagement

By Suzana Palaska-Nicholson, OIP Program Coordinator.

Five faculty members from the College of Agricultural, Consumer and Environmental Sciences (ACES) have been selected as 2012 Scholars of the ACES Academy for Global Engagement. The Academy program is designed to stimulate international engagement in areas of education, research, and outreach.

Participating scholars will learn about various global activities and opportunities at the college, campus, and national levels, and then will participate in an international immersion experience. In addition, a cadre of internationally experienced faculty as well as ACES Global Academy Fellows (previous scholars) will assist this year's scholars in cultivating their international skills.

Scholars selected for this year's ACES Academy for Global Engagement are:

- Dr. Juan Andrade**, Department of Food Science and Human Nutrition
- Ms. Jan Brooks**, Department of Human and Community Development
- Dr. Mary-Grace Danao**, Department of Agricultural and Biological Engineering
- Dr. Barrett Kirwan**, Department of Agricultural and Consumer Economics
- Dr. Hans Stein**, Department of Animal Sciences

The focus of this year's Academy is on "Food Security and Human Nutrition," and the international immersion experience is set to take place in Ghana, West Africa. The team of Academy Scholars will work on developing ideas, plans, and strategies to engage in international research collaborations, innovative educational programs, and impactful outreach efforts around the globe.

OIP announces Fall 2012 International Seed Grant Winners

OIP congratulates its International Seed Grant winners for Fall 2012. The goal of the Seed Grant program is to support awardees in establishing a strong international relationship that will continue to expand and flourish into a larger and substantial international collaborative effort that will ultimately benefit departments, programs, the College of ACES, and the University of Illinois. The funding of the International Seed Grants program is made possible through support provided by the Arlys Conrad Endowment Fund.

This semester's winners are: **Dr. Barrett Kirwan**, **Dr. Yoshie Hanzawa**, **Dr. Juan Andrade**, and **Dr. Gail M. Ferguson**.

Delegation from Vladivostok, Russia completes third year of training at ACES



During November 2012, the Office of International Programs (OIP) hosted two scientists from Far Eastern Federal University (FEFU) in Vladivostok, Russia for a two-week training program.

FEFU delegation visits Watershed Foods in Gridley, IL, as part of their training program at ACES.

Professor Tatyana Dolgova, Head of the Scientific, School of Biomedicine, and Svetlana Minenko, Project Administrator, were visiting

ACES for a third year as part of a grant funded by the Russian Federation.

This year's program focused on food nutrition and biomedicine, and Dolgova and Minenko left in awe of ACES' ingenuity and with high hopes of facilitating future collaborations between the two universities, specifically in nutritional and biomedical uses of soybeans and other foods.

The visitors spent one day of their training at the National Soybean Research Lab where they were able to cook and learn about various soy projects. They also spent time with Dr. Elvira de Mejia. Minenko says, "Her work fascinates me year after year." Another highlight for the visitors was a trip to the University of Illinois College of Medicine in Chicago.

Minenko says, "Soybeans are a staple crop near our university, so we found the presentations about soybeans especially interesting, specifically the idea of treating tumors with soybeans. This reminded me of a scientist in Vladivostok who is exploring medicinal uses of teas, berries, and herbs to prevent cancer and diabetes. He has also developed a wine with health benefits and has received gold medals for it at exhibits. When I learned more about ACES' research in these areas, I decided that these are people I need to put in touch with each other. That's just one example of the connections I hope to facilitate thanks to this program. To complete the requirements of the grant, we will host a conference at home to transfer the information we have learned."

Radwan improving date palms with funding from Qatar National Research Foundation



As the only tree capable of growing in the driest areas, the date palm provides Qatar and countries in similar climates with a necessary source of food, income, aesthetics, and shade. However, the same conditions in which the date palms can thrive also provide breeding grounds for disease, and as a result, 30 percent of Qatar's date palm yields are lost annually.

Dr. Osman Radwan, a visiting assistant professor in the Department of Natural Resources and Environmental Sciences, is part of an international collaboration that has received a total of \$2.7 million in grants to use towards transferring advanced plant genomics technologies from the United States to scientists in Qatar and other developing countries.

Using his experience working with soybean disease resistance and the facilities at the W.M. Keck Center for Comparative and Functional Genomics, Radwan is conducting sequence analysis at this facility. He is finding important genes that are involved in the date palm's tolerance as well as resistance to disease. Transfer of the knowledge that is being developed by Radwan and his team will help Qatar and other countries improve their date palm so that trees can better survive diseases, drought, and other stresses. Radwan's collaborators include Dr. Al-Naemi and Dr. Ahmed, both from the University of Qatar, as well as Dr. Tanaka from the University of Tottori (Japan).

The specific grants Radwan and his team received from the Qatar National Research Foundation include:

"Pathological and genomic studies of important diseases of date palm" (2012), \$920,110

"Isolation of new and unique genes related to drought and salinity tolerance" (2012), \$836,578

"Improvement of date palm production and quality under Qatar conditions" (2010), \$881,035

OIP hosts Dr. Robert Ziegler, Director General of the International Rice Research Institute

Several ACES faculty, staff, and students joined OIP for a conversation with Dr. Robert S. Zeigler, Director General of the International Rice Research Institute (IRRI) on October 26, 2012.



Ziegler is an internationally respected plant pathologist with more than 30 years of experience in agricultural research in the developing world. He is also an alumnus of the University of Illinois, receiving his B.S. degree in Biology in the 1970s. Dr. Ziegler greatly enjoyed connecting with ACES faculty, staff, and students, and hopes to return to ACES in the near future to build and expand further on these initial interactions. He indicated that he is very much interested in building linkages and partnerships with ACES. For more information about IRRI, please visit <http://irri.org/>

Juvik hosts South Korean colleague to work on genetic transformation of *Miscanthus*



Dr. Kim in his office.

for *Miscanthus sinensis*.

Toward the goal of more efficient biofuel production, Dr. Jack Juvik, ACES professor of plant genetics in the Department of Crop Sciences, is hosting Dr. Hwa Yeong Kim, professor in the Department of Plant Science at Gangneung-Wonju National University, South Korea, for a sabbatical. During his visit, Kim will be working on developing a genetic transformation protocol

The genetic transformation protocol introduces new genes into plants to maximize performance. Dr. Kim has a strong background in plant transformation technology. Most recently, he completed work on transformation of white potatoes, which could enhance efforts in varietal improvement for better quality and productivity. Now Kim is using his expertise to work on *Miscanthus*, which is generally grown as a substitute for petroleum gases. Kim says, "If we can make transformation technology readily available for *Miscanthus*, then we can introduce genes into this plant that will help lower its lignin content to increase its efficiency for producing ethanol so I am hoping for a positive outcome."

Korban hosts visiting scholar from Brazil to study the effects of low temperature and salinity on roses



As the most important ornamental plant worldwide, roses are used as cut flowers, in gardens, and in the medicinal, perfume, and even food industries. To help growers increase production and move forward with energy sustainable strategies for producing roses and

other flowers, Ms. Michele Reis, a PhD candidate from Brazil's Universidade Federal de Lavras (UFLA), is spending the academic year 2012–13 in ACES to investigate how different environmental stresses, specifically low temperature and soil salinization, influence quality and growth of roses. Reis is hosted as a visiting scholar by Dr. Schuyler Korban, professor of molecular genetics and director of the ACES Office of International Programs.

Reis explains, "In Brazil, the demand for roses is ever-increasing due to more beautiful varieties becoming available and more landscaped areas being developed. As roses are becoming more important economically, better knowledge of rose genomics will help growers understand how low temperature influences flower quality. For example, if growers can use fewer heat lamps and greenhouses as a result of optimizing their choice of a variety, then they can save costs and energy."