



# Office of International Programs *Monthly Newsletter*

October 2012

## Mackie hosts Dean Madeira as Fulbright Scholar to identify biomass-degrading genes



**Dean Madeira using the oxygen-free chambers in Dr. Mackie's lab.**

With the goal of using microbial genes for biotechnological applications, including production of biofuels from biomass, Professor of Animal Sciences Rod Mackie is hosting Brazilian Professor Humberto Madeira during fall semester 2012. Professor Madeira, whose visit is funded by the Fulbright Program, is Dean of the School for Agricultural Sciences and Veterinary Medicine at Pontifícia Universidade Católica de Paraná (PUCPR) in Curitiba, Brazil.

Madeira's Fulbright project capitalizes on a metagenomics approach to identify genes of interest from fish gut microbes that have potential applications in cellulose degradation. Metagenomics is a global strategy to identify numerous genes in a mixed bacterial population, for example in the fish tract, and also serves as a powerful approach in assessing the animal's environment. However, as most gut microbes only grow in the absence of oxygen, Madeira is interested in having access to special conditions, such as oxygen-free chambers available in Dr. Mackie's lab, to isolate and grow his samples to isolate DNA. Using Mackie's lab, Madeira expects to generate and sequence a DNA library from grass carp intestines. Upon his return to Brazil, he will run extensive bioinformatics analysis to identify potential genes that act on carbohydrates, especially those with the ability to break down cellulose.

Madeira notes that biofuels play a central role in Brazil's policies and economy as their automobiles run on 80% ethanol from sugarcane. "We are also looking at ways to get more biofuel out of a crop by using the remaining biomass. For example, our ethanol currently comes from the sugar and not from the remaining biomass of the plant." As a representative from his university in Brazil, Dr. Madeira is developing a Memorandum of Understanding between PUCPR and the University of Illinois, with the aid of the director of the Lemann Institute for Brazilian Studies, Mary Arends-Kuenning.

Illinois and Brazil have a mutual interest in increasing mobility between their universities. University of Illinois Vice President and Chancellor Phyllis Wise recently joined Governor Quinn on a trip to Brazil to represent the University and recruit Brazilian students. Additionally, Illinois is making an effort to attract more Brazilian students to its universities through the Brazilian government's Scientific Mobility Program.

Madeira and Mackie have plans for additional long-term collaborations. Mackie says, "It is great to have Dr. Madeira visit our labs in the Department of Animal Science as a Fulbright Scholar and to re-establish contact with him. We are excited by the prospect of developing research plans and collaborations to study convergent evolution of the microbial communities in the foregut of Brazilian vertebrate herbivores."

## WGGP, CEAPS, and OIP sponsor Food Security and Public Health in East Asia Symposium

The Office of International Programs served as a co-sponsor for the Food Security and Public Health in East Asia Symposium on October 4–5, 2012. The symposium was sponsored by the Women and Gender in Global Perspectives Program (WGGP) and the Center for East Asian and Pacific Studies (CEAPS).

The symposium brought together speakers from different disciplines and several different countries to address key aspects of food security and its related health issues in the East Asian region. Discussions stressed the importance of the symposium's interdisciplinary approach to understanding problems with food security in the region. Participants noted that it was important to address not only availability of and access to food but also food safety concerns and the implications of these for nutrition and health. Differences facing women and men as consumers, farmers, migrants, and care providers were discussed.

## ACES hosts 63 Fellows of National Defense University for annual program



A cadre of 63 senior officials from national militaries around the world visited the College of ACES as part of the International Fellows Program of the National Defense University (NDU) on October 9, 2012. The Fellows represented 52 countries.

As part of a Midwest tour to learn about critical food security and agribusiness issues, their visit to ACES included listening to seminar presentations on strategic topics, including agricultural market situations (Dr. Darrel Good, Agricultural and Consumer Economics), reducing post-harvest losses (Dr. Steve Sonka, Professor and Director of the ADM Institute for the Prevention of Post-harvest Loss), and using bio-energy for competitiveness and sustainability (Dr. K.C. Ting, Professor and Department Head in Agricultural and Biological Engineering).

## National Taiwan University visits Illinois to discuss expanded partnerships

In early October, the University of Illinois hosted a delegation of senior administrative officials and faculty from National Taiwan University (NTU). The delegation was led by NTU's Vice President for Academic Affairs, Dr. Ching-Hua Lo, and included their senior international officer, as well as faculty in mechanical engineering, horticulture, and landscape architecture.

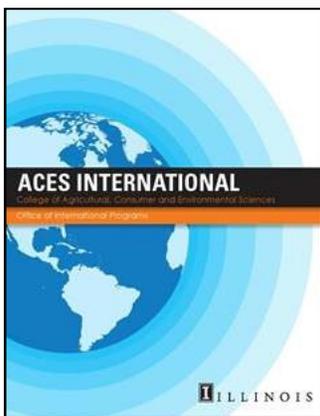
Because the College of ACES has a long-standing student exchange program with NTU, as well as faculty-to-faculty research connections in several departments, the NTU delegation spent time with Dean Robert Hauser and with several departmental representatives in ACES to discuss the current status of these connections and to propose potential opportunities for expanding our partnership.

In addition to Dean Hauser, the delegation met with Dr. K.C. Ting, Head, Department of Agricultural and Biological Engineering; Dr. Faye Dong, Head, Department of Food Science and Human Nutrition; Dr. Elvira de Mejia, Interim Assistant Dean for Research; Meredith Blumthal, Director of Education Abroad Programs; and Suzana Palaska-Nicolson, Program Coordinator for the Office of International Programs.

The NTU delegation's three-day visit to Illinois concluded with a meeting and ceremony hosted by Chancellor Phyllis Wise to sign a general campus-wide cooperation agreement between the two universities.

National Taiwan University is located in Taipei, and it is the flagship public university in Taiwan. NTU has 76 faculty members who earned their advanced degrees from the University of Illinois at Urbana-Champaign.

## OIP publishes "ACES International"



The Office of International Programs is pleased to present an overview of the College's international initiatives and engagements in its recently printed publication, ACES International.

As this report illustrates, the volume and significance of our college's international engagements have significantly increased in the past three years, reaching new levels. ACES faculty are working around the world to pursue new research collaborations; taking leadership in modernizing extension programs; promoting international experiences of graduate and undergraduate students; improving crop, animal, and dairy production; alleviating the effects of climate change; empowering women farmers; and much more.

You can view ACES International on our website at: <http://intlprograms.aces.illinois.edu/news/publications>.

## Swedish University of Agricultural Sciences (SLU) delegation visits ACES



A delegation from the Swedish University of Agricultural Sciences, also known as SLU, visited the Urbana-Champaign campus from October 10–12, 2012. The College of ACES has a long-standing partnership with SLU, and the purpose of the delegation's visit was to explore opportunities for expanding our partnership and embarking on new joint projects, specifically in Asia and Africa, where both parties already have a strong interest and presence.

The delegation included Dr. Johan Schnürer, Assistant Vice Chancellor; Dr. Arvid Ugglå, Director of Agricultural Sciences for Global Development; and Dr. Carolyn Glynn, Senior Research Advisor.

## Korban elected to University Council for University of Kavala, Greece



*Dr. L. Feldman (Rutgers), Dr. Ch. Metropoulos (President), Dr. N. Katopodes (Michigan State U), and Dr. S. Korban.*

Dr. Schuyler Korban, professor of molecular genetics and director of the Office of International Programs, has been elected to serve on the newly formed University Council at the University of Kavala in Greece.

As part of its austerity measures, the Greek government has required each of its universities to establish a university council, which will perform functions similar to a Board of Regents. Among the first Greek universities to put its council in place, the University of Kavala Institute of Technology has elected to its council eight of its own faculty members, four United States faculty members, including Korban, and one graduate student.

Korban will serve a two-year term in this role, which serves to advise on all major activities of the university, including appointing the university's President.

The University of Kavala has 8,000 active students in four colleges. Korban says, "Representatives from this university first visited ACES in early 2011, and we have since been exploring opportunities for partnerships, collaborations, and student exchanges. They are especially strong in natural resources, environmental sciences, and engineering. I am honored to serve on this council."