

HIGHLIGHTS FROM THE BIOTECH CENTER December 2008

Faculty Activities and Accomplishments

Eric Lam, Lily Young, and Research Assistant Professor Rong Di were invited participants in the recent US-China Green Energy Conference that took place in Beijing, China, November 16-18. This conference brought together a broad array of stakeholders from both the U.S. and China to assess various innovations and issues facing both countries in the quest for sustainable and renewable sources of energy to minimize dependence on fossil fuels. Dr. Lam served as one of six panelists for the Bioenergy panel in this conference and fielded questions on the prospects and issues related to deployment of biomass as feedstocks for refineries to produce green fuels. After the Beijing conference, Drs. Lam and Di were also participants in a special delegation from the Beijing conference to the southern Chinese province of Guangxi, where bioethanol is currently produced from cassava. On November 20th and 21st, the 8-person delegation was received by the President of the Chinese Academy of Science in Guangxi, the mayor from the resort city of Beihai, and the vice governor of Guangxi province. Plans for future collaboration in the area of biofuel research and deployment were discussed and steps of further joint projects and programs between the Academy of Science Guangxi and Rutgers will be implemented.

Student Activities and Accomplishments

The Biotech Center congratulates Hisako Masuda on the successful defense of her Ph.D. thesis on December 10. The title was "Identification and characterization of monooxygenase enzymes involved in 1,4-dioxane degradation in *Pseudonocardia* sp. strain ENV478, *Mycobacterium* sp. strain ENV421, and *Nocardia* sp. strain ENV425." Hisako worked in the lab of Gerben Zylstra.

Jeff Brandimarto, a graduate student in Molecular Biosciences (Microbiology and Molecular Genetics) successfully defended his Masters thesis under the direction of Wendie Cohick on Nov. 1st. His thesis was entitled "Molecular regulation of IGFBP-5 by signaling molecules downstream of the IGF-I receptor in mammary epithelial cells".

Grants and Fundraising Efforts

Ilya Raskin is collaborating with a colleague at the University of Illinois on a grant funded by EPA. The two-year project, recently funded at \$48,000, is designed to provide better natural diets to Native Americans living in Alaska. Dr. Raskin will deploy portable pharmacological screens of native plants and berries for metabolic syndrome and other chronic diseases in Alaska, as well as follow-up efficacy assays.

Conferences, Seminars, and Other Events

Nilgun Tumer was an invited speaker at the 2008 National Fusarium Head Blight Forum on Dec. 2-4 in Indianapolis, IN. She presented a talk entitled "A genome wide screen to identify the potential targets of trichothecene mycotoxins" in the Gene Discovery and Engineering Resistance session which was chaired by Michael Lawton. Research Assistant Hemalatha Saidasan and Dr. Lawton presented a poster entitled 'Rapid Gene Assay in *Physcomitrella Patens* Reveals Multiple Mechanisms and Approaches for Controlling Fusarium Head Blight.'

Postdoctoral Associate John McLaughlin and Graduate Assistant Anwar Bin Umer also attended the meeting and presented posters about their work in Dr. Tumer's lab.

Not previously reported: Michael Lawton gave a presentation entitled "Weapons of Moss Destruction: Death and Disease in *Physcomitrella patens*" at the Salk Institute Plant Biology Laboratory 25th Anniversary Symposium, which was held on Tuesday, October 14, 2008 in La Jolla, CA.