As we welcome a new year and prepare to begin the spring semester, preparations are being made to interview candidates for a new research and teaching position as assistant/associate/full professor in Plant Stress Biology. Bob Sharp is leading the search process. This F2IC-funded position can be instrumental in further advancing our division in this area of current strength. Considering NIFA’s shift toward larger, highly collaborative programs I believe that identifying and building our capacity in areas such as this one can contribute to success in funding our research programs.

Susan was busy between semesters organizing and overseeing some facilities improvements that I believe will create a better learning environment for our students. A key aspect of this effort will lead to significant improvements in Room 200 in Waters Hall when everything is finished. The goal is a classroom equipped with modern technology that can accommodate 50 students.

One of our BS graduates from 1980, Bill Ruppert, is highlighted in the “Know Your Colleagues” section. Bill is located in the St Louis area and was instrumental in organizing a recent series of visits by undergraduate students, most from Plant Sciences, before we gathered for an alumni reception that evening. Take a look at page 5 for more. Plant Sciences undergraduate students, graduate students, and faculty continue to receive important honors that confirm the strength of our people and programs. You can see more on pages 2 & 3. Please welcome Dr. Jason Gillman, who recently joined the ARS Plant Genetics Research Unit in the role of Research Geneticist. Jason will be located in Waters Hall.
Awards & Honors

Gassmann awarded Interdisciplinary Plant Group Excellence Award

Walter Gassmann, Associate Professor in Plant Sciences, was the recipient of the 2010 Excellence Award from the Interdisciplinary Plant Group. The award acknowledges distinguished contributions to the study of interdisciplinary research in plant biology at MU.

Gassmann was chosen to receive the award for his exceptional efforts in the development, implementation, and success of the IPG graduate curriculum and in recognition of his support of the interdisciplinary study of plant biology. This is the first year the award has been offered.

“Dr. Gassmann is a natural choice to be the first recipient of the IPG Excellence Award,” said John Walker, director of the Interdisciplinary Plant Group and Professor of Biological Sciences. “He is an excellent colleague, and for ten years he has been an invaluable member of the IPG who has generously shared his time, resources, and tremendous expertise with other faculty, students, and postdocs on campus.”

Kallenbach awarded Grasslander of the Year

Rob Kallenbach was awarded “Grasslander of the Year” by the Missouri Forage and Grassland Council, 2010. The award is given to an individual each year who has made outstanding contributions to the stewardship of grasslands in Missouri.

Holou named Doctoral Marshal for Graduate School Commencement ceremony

The marshals were selected based on their academic performance and their contributions to graduate education at MU. This year’s Doctoral marshal was Roland Holou of the Plant, Insect and Microbial Sciences program hooded by his faculty advisors, Gene Stevens and William Folk. Those chosen were honored with a Marshal sash, were recognized in the Commencement Bulletin and were the first of those degree candidates to enter the arena floor during the Graduate School Commencement ceremony.

Plant Science Students win President’s Prize at ESA Conference

Four graduate students and one undergraduate were successful in the student competition at the Entomological Society of America’s (ESA) annual conference held in San Diego, CA, December 12-15, 2010. Winners received a free one-year membership in ESA, a $70 cash prize and a certificate. Runner-ups received certificates.

Elizabeth Long of Debbie Finke’s Lab won in the Plant Insect Ecosystems: Vectors of Plant Diseases category of the Graduate Student Ten-Minute Paper Competition. Her topic was “Predator diversity impacts herbivore abundance and distribution: consequences for a vector-borne plant pathogen.” MU had three Poster competition winners. Qian Wang of Qisheng Song’s lab won with a poster entitled, “Role of bursicon in larvae stage.” She placed first in the Integrated Physiological and Molecular Insect systems: II section. Richard Houseman’s graduate student, Paul Botch, won in the Medical, Urban and Veterinary Entomology: Session I. Paul’s poster was entitled, “A phylogeny of Naucoridae (Heteroptera) using whole mitochondrial genomes.”
**Hentges and Hueste awarded scholarships**

The Missouri Turf and Ornamental Council in conjunction with the Lobenstein Scholarship Fund awarded a $1000 scholarship to Staci Hentges and Jacob Hueste. The Lobenstein Scholarship is available to any University of Missouri junior or senior level student studying in the fields of Horticulture, Turfgrass Management or Agronomy. Staci is a junior from Centertown, MO majoring in Landscape Design and Jacob is a senior from Camdenton, MO majoring in Plant Science.

**Song awarded scholarship**

Superintendents Association on December 14th, 2010. The Scholarship Program offers educational aid to students in the turfgrass program at an accredited college or university in Kansas or Missouri.

**Folta & Smeda awarded scholarships**

Michelle Folta and John Smeda were awarded scholarships by the Western Seed Association and were recognized at the annual banquet held November 8, 2010 in Kansas City, MO. Both are seniors with an emphasis in Plant Breeding, Genetics, and Biotechnology.

**Haguewood awarded second place in poster competition**

John Haguewood, an M.S. candidate, received second place in the poster competition at the North Central Weed Science Society meeting which took place December 13-16, 2010 in Lexington, KY. John’s poster was entitled, “Management of Annual Bluegrass with Bispyribac Sodium on Creeping Bentgrass.” Reid Smeda and Xi Xiong are his co-advisers.

**New Additions to the Miller & Mitchum Families**

Dr. Lee Miller and his wife, Robin, welcomed their first child December 1, 2010. Their daughter, Madeleine Noelle Miller was born at Boone Hospital and weighed 7 lbs. 6 oz.

Luke Maxwell Mitchum was born on November 1, 2010 at Boone Hospital to Dr. Melissa Mitchum and her husband Brian. He weighed 7lbs. 4 oz. and 21.5 inches long. Jacob, 3, is the proud big brother.

**Riley on Maternity Leave Soon**

Kate Riley will be going on maternity leave for the month of February and the beginning of March. If she is currently working on any projects for you that can not wait until her return please contact Tonya Mueller at muellertj@missouri.edu.
Gillman to join Plant Sciences

Dr. Jason Gillman has joined the ARS Plant Genetics Research Unit as a Research Geneticist (Plants). Jason received his PhD from Cornell University in 2008 under the mentorship of Professor Maureen Hanson. He spent the last two years working with Kristin Bilyeu as a Postdoctoral Fellow on several projects related to seed quality issues in soybean. Jason will remain in the soybean group and will be developing his own research program. His office is 7 Waters Hall and lab is 33 West Mumford Hall.

Lair of the Roundworm Article featured in Illumination Magazine

The Fall 2010 edition of Illumination Magazine features an article “Lair of the Roundworm” written by Melody Kroll highlighting research being conducted by the Division of Plant Sciences Soybean Cyst Nematode research team; Drs. Allen Wrather, Melissa Mitchum, Grover Shannon, Dave Sleper, and Henry Nguyen. You can read the article at http://illumination.missouri.edu/.

Assistant/Associate/Full Professor Position in Plant Stress Biology

Candidates have been reviewed and considered. Below are a few of the possible candidates for the Plant Stress Biology position.

**Dr. Christopher (Chris) Frost**

Ph.D., Ecology, 2005, University of Georgia • Advisor: Mark D. Hunter

**Postdocs:** Pennsylvania State University with Jack Schultz (2005-2007) and John E. Carlson (2007-2010)

**Current Position:** Assistant Research Scientist, School of Forestry and Natural Resources, University of Georgia.

Dr. Frost's research interests in plant stress lie in understanding the molecular mechanisms regulating plant dynamic defense responses (i.e., plasticity) in response to herbivore, air pollution, and drought stressors by the application of functional genomics and metabolomic approaches. He has primarily used the model plant Poplar for his research.

**Arrives:** Sun. Feb. 13 • **Seminar:** Mon. Feb. 14 (3.30 pm)

**Departs:** Afternoon of Tues. Feb. 15

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**Dr. Anjali S. Iyer-Pascuzzi**

Ph.D., Plant Breeding and Genetics, 2006, Cornell University

Advisor: Susan R. McCouch

**Postdoc/Current Position:** Department of Biology and Center for Systems Biology, Duke University.

Dr. Iyer-Pascuzzi's research interests in plant stress lie in understanding the regulatory networks that underlie root responses to acid stress by the application of systems and genomics approaches and a novel imaging system for studying root architecture. She uses both rice and Arabidopsis as model systems for her studies.

**Arrives:** Tues. Feb. 15 • **Seminar:** Wed. Feb. 16 (3.30 pm)

**Departs:** Afternoon of Thurs. Feb. 17

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**Dr. David G. Mendoza-Cozatl**

Ph.D., Biochemistry, 2005, National Autonomous University of Mexico

Advisor: Rafael Moreno-Sanchez

**Postdoc/Current Position:** University of California-San Diego.

Dr. Mendoza-Cozatl's research interests in plant stress are focused on glutathione metabolism and mechanisms of heavy metal tolerance, toxicity, and accumulation in plants by the application of biochemistry, molecular biology, and systems biology approaches. He uses Arabidopsis as a model system for his research.

**Arrives:** Tues. Feb. 22 • **Seminar:** Wed. Feb. 23 (3.30 pm)

**Departs:** Afternoon of Thurs. Feb. 24

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**FORCED PASSWORD RESET**

The university is implementing an annual password reset due to industry standards and internal audits. This reset will only be mandatory for university faculty and staff and will run from February 1 to April 18. If you do not make a significant password change during that time frame your password will automatically be changed by the Department of IT and you will be unable to logon to computers, check email or access any internal website that uses your pawprint and password for authentication. Don’t forget to set your new passwords on any mobile devices so that you continue to get email and calendar reminders. Passwords can be changed at this website: http://doit.missouri.edu/accounts/ Select the “Password Manager” link on the right.
KNOW YOUR ALUMNUS:

Bill Ruppert

Bill Ruppert, BS AG 1980, acquired an interest in native Missouri plants during his involvement with development of the Woodland and Floral Gardens, a mini botanic garden formerly located on the MU campus near the Agriculture Building. During the garden’s design phase in the late 1970’s, Bill devoted countless hours researching the appropriate native plants to support the design intent of showcasing four Missouri landscape environments within the context of the garden: Ozark woodland, swale wetland, upland prairie and cedar glade. Research efforts were significantly benefited by two key reference books, Julian Steyermark’s, “Flora of Missouri,” and Edgar Denison’s, “Missouri Wildflowers,” and two native plant-knowledgeable individuals, Bill Davit of the Missouri Botanical Garden’s Shaw Arboretum (now Shaw Nature Reserve) and Edgar Denison, an avid native plant enthusiast and author.

The results of Bill’s research ultimately contributed a variety of Missouri native plants to the garden’s collection including American yellowwood, American hornbeam, celandine poppy, bloodroot, wild ginger, honeysuckle azalea, Carolina buckthorn, aromatic sumac, pawpaw, bald cypress, black gum, deciduous holly, Missouri primrose, smooth sumac, shortleaf pine and gum bumelia. While Bill and his student colleagues enthusiastically pursued Missouri native plants as being a portion of the garden’s plant collection, skeptics often questioned, “Why do you want to plant a bunch of ‘weeds’ on the grounds of the Agriculture Building?”

Fast-forward to the current decade…

Missouri native plants and cultivated selections of American natives comprise a significant portion of the plant material marketed by Bill’s company, the St. Louis office of National Nursery Products. Stormwater mitigation and projects to create sustainable landscapes has increased the demand for landscape plants adapted to the rigors of the built landscape. In preparation for the increasing demand for environmental plant material, Bill has maintained involvement as an advisory committee member with Grow Native!, a program designed to promote native plant awareness jointly managed by the Missouri Department of Conservation and the Missouri Department of Agriculture. Bill also served as a consulting member of the St. Louis Metropolitan Sewer District “Best Management Practices (BMP) Taskforce” and is currently engaged with recommending and supplying plant material for two “Sustainable Sites Initiative (SITES)” pilot projects (Novus International headquarters and SWT Design offices) designed by SWT Design, a St. Louis-based landscape architecture planning and design firm.

At the January 2011 National Green Centre conference held in St. Louis, Bill convened and moderated a panel of design and landscape plant specialists to discuss the topic “Evaluating and Selecting Sustainable Plants for the Sustainable Landscape: Natives . . . and beyond?” The panel included discussion about the role of native, selections of native and non-invasive adaptable non-native plants when assembling the sustainable plant palette for sustainable landscape designs.

For more information about the Sustainable Sites Initiative (SITES), visit: http://www.sustainablesites.org
Crop Management Conference

The Crop Management Conference was held December 1-2, 2010 at the Hilton Garden Inn in Columbia, MO. Dr. Paul Esker from the University of Wisconsin was the keynote speaker. His seminar was entitled, “Understanding risk factors that drive response of foliar fungicide applications in field crops.” There were about 225 attendees at this year’s conference. Those in attendance made decisions on more than 21,710 million acres throughout the Midwest. Sixty percent of those in attendance who filled out their evaluation said that they intend to change one of their management practices as a result of attending the conference.

Native Plant Sale

April 9, 2011
Join us for a perfect opportunity to find all the native plants you need for your home garden, and support Missouri businesses. Featuring: Four Missouri native plant and shrub vendors, Native plant themed books and items made by local artists for sale, and many learning opportunities through informative booths and demonstrations! Bird Watch Tour from 7-10 am, Please RSVP to Theresa Chism (573-884-7945 or ChismT@missouri.edu)

UPCOMING MEETINGS:

7th Annual Soybean Biotechnology Symposium
April 6, 2011
http://soybiotechcenter.org/symposium/
Christopher S. Bond Life Sciences Center
University of Missouri, Columbia, MO

Missouri Life Sciences Week
April 18-23, 2011
http://lifesciencesweek.missouri.edu/
Christopher S. Bond Life Sciences Center
University of Missouri, Columbia, MO

28th Annual IPG Symposium: Plants for the Future
May 24-27, 2011
http://ipg.missouri.edu/symposium.php
Christopher S. Bond Life Sciences Center
University of Missouri, Columbia, MO

MU Turfgrass & Ornamental Field Day
July 26, 2011
MU South Farms, Columbia, MO

SEMINAR SERIES

Monsanto Auditorium, Life Sciences Center
Wednesdays at 3:30 p.m.

February 2 OPEN
February 9 Faculty Interview Seminar TBD
February 16 Anjali Iyer-Pascuzzi, Duke University
Faculty Interview Seminar
February 23 David Mendoza-Cozatl, UC-San Diego
Faculty Interview Seminar
March 2 Chin-Feng Hwang, Missouri State University
Molecular Breeding of Grapevine for Pathogen Resistance
March 9 Nick Haddad, NC State University
Landscape approaches to insect conservation
March 16 Reid Smeda, University of Missouri
Weed Science & Newton’s Third Law of Motion (Promotion Seminar)
March 23 Garry Sunter, University of Texas at SA
Transcriptional Regulation in Geminiviruses
March 30 No Seminar - Spring Break
April 6 John Yang, Lincoln University
Reducing arsenic (As) accumulation in rice grains through iron detox reactions in soil
April 13 William Wintemantel, USDA-ARS, CA
King of the Hill: Identifying Factors Contributing to Emergence and Dominance of Vector Transmitted Viruses
April 20 No Seminar
MU Life Sciences Week
April 27 Gary J. Muehlbauer, University of Minnesota
TBD
May 4 Julian Schroeder, UC-San Diego
TBD

For the most up to date Seminar Series visit
http://plantsci.missouri.edu/seminar/
## Recent Grants

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<tr>
<th>Investigators</th>
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<tr>
<td>Jones, A.</td>
<td>Evaluating the Effects and Timing of a Side Dress Application</td>
<td>Cotton Inc.</td>
<td>$15,250</td>
<td>1/11-12/31/2011</td>
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<td>Jones, A.</td>
<td>Additives for Increasing Phosphorus Fertilizer Efficiency in cotton Production</td>
<td>Cotton Inc.</td>
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<td>1/11-12/31/2011</td>
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<td>Jones, A.</td>
<td>Controlled Release N Fertilizers: Do they have a place in Missouri Cotton Production?</td>
<td>Cotton Inc.</td>
<td>$21,850</td>
<td>1/11-12/31/2011</td>
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<td>Nguyen, H.</td>
<td>Construction of Proteome and Metabolome Maps of Soybean to Improve Yield and Value-Added Traits</td>
<td>United Soybean Board</td>
<td>$381,228</td>
<td>1/1/2011-12/31/2011</td>
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<td>Nguyen, H.</td>
<td>Effectiveness of Variable Rate Fertilizer Applications on Cotton Fields</td>
<td>Cotton Inc.</td>
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<td>Warmund, M.</td>
<td>Entering Passport and Yield Descriptor Data of Castanea Accessions at the University of Missouri Horticulture and Agroforestry Research Center into GRIN</td>
<td>ARS</td>
<td>$4,874</td>
<td>9/10/2010-4/15/2011</td>
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<td>Wiebold, W.</td>
<td>Development and Management of Canola in the Great Plains</td>
<td>Kansas State University</td>
<td>$5,000</td>
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<td>Wrather, A.</td>
<td>Soybean Cyst Nematode Biology and Management</td>
<td>NIFA</td>
<td>$517,452</td>
<td>7/1/10-6/30/2011</td>
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<td>Zhang, Z.</td>
<td>Production Transgenic Corn Events to Test New Promoters</td>
<td>Dow</td>
<td>$71,750</td>
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Recent Publications


