



BIOLOGUE



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Newsletter of the Biology Department, Washington University in St. Louis

“It Grows on You”

Featured in this issue:

DDPSC ANNUAL FALL SYMPOSIUM

NEW FACES IN BIOLOGY

EVENT TO WELCOME PETER WYSE
JACKSON

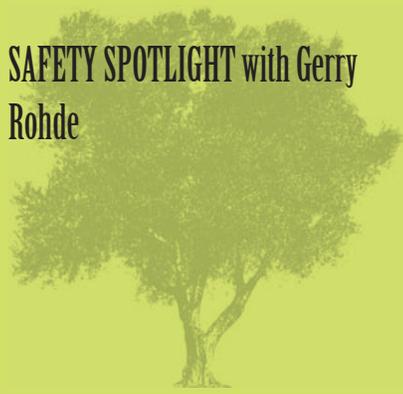
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SAFETY SPOTLIGHT with Gerry
Rohde



Donald Danforth Plant Science Center 13th Annual Fall Symposium

“Plant Genomes to Phenomes”, the 13th Annual Fall Symposium, will be held September 28-30, 2011 at the Danforth Center.

High-throughput genomic, computational, systems, and phenomic approaches are revealing new principles in plant biology. The symposium will focus on cutting-edge, post-genomic science that is illuminating the basis for complex phenotypes in plants



*Danforth Plant Science Center, 975 North
Warson Rd.*

Registration is open now. Deadlines:

Hotel room reservation: **8/28/11**

Abstract submission: **9/7/11**

Registration: **9/7/11**

This year's speakers:

Professor Sir David Baulcombe,
Regius Professor of Botany, Royal

Society Research Professor, Department of Plant Sciences, University of Cambridge

Dr. Ivan Baxter, USDA Research Scientist, Assistant Member and Principal Investigator, Donald Danforth Plant Science Center

Dr. Kirsten Bomblies, Assistant Professor of Organismic & Evolutionary Biology (OEB), Harvard University

Dr. Justin Borevitz, Associate Professor, Department of Ecology and Evolution, University of Chicago

Dr. Siobhán Brady, Assistant Professor, Department of Plant Biology and Genome Center, University of California-Davis

Dr. Tom Brutnell, Associate Scientist, Boyce Thompson Institute for Plant Research and Adjunct Professor, Cornell University

Dr. Gloria Coruzzi, Carroll & Milton Petrie Professor, Center for Genomics and Systems Biology, and Chair, Department of Biology, New York University

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NEW FACES IN BIOLOGY

Three new faculty members from Rice University will join the Biology Department on August 1, 2011.



David Queller
Spencer T. Olin
Professor

Research Description:
Evolution usually favors “selfish” individuals that outcompete others, but it has nevertheless forged highly cooperative entities like social insect colonies, multicellular organisms, and the

eukaryotic cell. I am interested in how cooperation and altruism evolve, with questions ranging from the genetic and molecular details of cooperation in social amoebas up to the nature of organisms. In empirical studies with Joan Strassmann, we have largely shifted from work on social insects to social amoebas. This gives us the opportunity to do experimental evolution studies and to study cooperation, cheating, and kin recognition at the genetic, molecular and genomic levels. On the theoretical side, I explore this evolution of cooperation with models using population genetics, inclusive fitness, or game theory. Future directions may include the evolution of multicellularity and genomic imprinting in social insects.



Joan Strassmann
Professor of Biology

Research Description:
The evolution of cooperation is one of the grand puzzles of life because cooperation should be difficult to evolve by natural selection. Questions about cooperative interactions involve genetic relatedness, kin recognition,

power asymmetries, synergistic advantages to associating, and control of exploitation. Sociality among microbes is a

relatively new and exciting field. Strassmann and Queller run a cooperative program in social evolution focusing on the social amoeba as a model organism. This ancient group of single-celled eukaryotes has a solitary single-celled stage, and a multicellular social stage that involves altruism. The advantage of this system for studying social traits include sequenced genomes, the ease of experimental evolution studies, single-gene experiments, field-collected clones, a new bacterial symbiosis, and an active and collaborative world-wide Dictyostelium community with annual meetings, Dictybase, and a stock center.

Other new faces in the Queller/Strassmann lab include:

Brock, Debra (Debbie), Research Scientist
Buttery, Neil, Postdoctoral Research Associate
Douglas, Tracy, DBBS Graduate Research Assistant
Smith, Jeffrey, Research Scientist
Tian, Xiangjun, Research Scientist



Lucia Strader
Assistant Professor of
Biology

Research Description:
The primary research objective of Lucia Strader’s group is to understand how plant hormones regulate growth and development. The group studies the roles of the

plant hormone auxin and its precursors using the plant *Arabidopsis thaliana* as a genetic model. Through their studies of the protein phosphatase IBRS, they have increased our understanding of auxin signal transduction and auxin crosstalk with other plant hormones. In addition, Dr. Strader and her students have been studying the transport and conversion of the auxin precursor indole-3-butyric acid (IBA) to the active auxin indole-3-acetic acid (IAA) and the contributions of these processes to plant growth.





Dianne Duncan Interim Director Imaging Facility

Though she is not exactly a new face in Biology, Dianne Duncan will be in a new position, serving as interim director for the Imaging Facility. Dianne has a great deal of imaging knowledge

and experience and will be a great asset in this role. She is in the process of contacting users to introduce herself and gather information so that a smooth transition is facilitated. Users, please help Dianne get started by introducing yourself and letting her know your ideas, concerns, experiences with the scopes, etc. Dianne's email is duncan_d@WUSTL.EDU. —Kathy Miller, Chair

FACULTY & STAFF HONORS & AWARDS/LAB NEWS

Allen Lab

I had a very enjoyable and successful sabbatical—thanks to Kathy Miller and Dean Wihl for the opportunity. I got one long paper on eugenics and the early 20th century conservation movement finished, an article on the history of evolutionary thought for the Princeton Encyclopedia of Evolution, three seminar presentations, a collaborative trip to South Africa to work with a colleague in Durban on bio-ethical issues, and some hiking in the Rockies in conjunction with a meeting in July. South Africa also involved a 3-day trip to a bush camp (great animals) and hiking in the Drakenberg Mountains, to the northeast. —Gar Allen

Dixit Lab

The American Society of Plant Biologists has awarded a limited number of travel grants for students, postdocs, and faculty beginning their careers to attend the Plant Biology 2011 Annual Meeting. This year's awardees include Erica Fishel, grad student, of the Dixit Lab. This year's travel awards also come with a registration waiver, sufficient to cover the entire registration costs for undergraduate and

graduate students, and all but a small portion of registration costs for postdocs.

Chuanmei Zhu, also a grad student of the Dixit Lab, has been accepted as the Charoen Pokphond Corporate Fellow in the McDonnell International Scholars Academy. The McDonnell Academy position will formally start in August 2011. —Ram Dixit

Haswell Lab

Maggie Wilson, a 3rd year Plant Biology graduate student, has recently completed a project that will be published in an upcoming issue of *The Plant Cell*. Maggie, along with lab alumnus Greg Jensen, showed that mechanosensitive ion channels are required for the proper placement of the division site in both chloroplasts. She also discovered the same phenomenon in *E. coli*, indicating an evolutionarily conserved link between membrane stretch and division site placement. Maggie was selected to present this work at the American Society of Plant Biologists meeting in Minneapolis this August, and she received a travel award to attend the meeting as well. Congratulations, Maggie!

—Liz Haswell

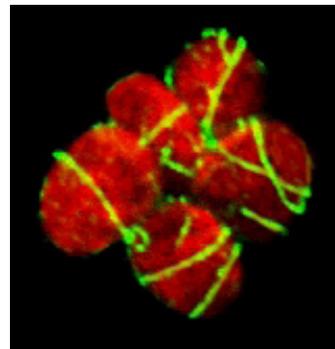


Figure Legend: During plant growth and development chloroplasts must divide repeatedly in order to maintain their population. The site of division is specified by the medial placement of the FtsZ ring, and altered FtsZ ring placement can result in disrupted chloroplast division. Here, FtsZ immunofluorescence microscopy reveals that chloroplasts isolated from *msl2 msl3* double mutant plants contain multiple FtsZ rings, supporting our model that the mechanosensitive channels MSL2 and MSL3 are necessary for proper FtsZ ring placement and chloroplast division. FtsZ (FITC) and chlorophyll fluorescence are represented by pseudo-color green and red, respectively.

msl2 msl3 double mutant plants contain multiple FtsZ rings, supporting our model that the mechanosensitive channels MSL2 and MSL3 are necessary for proper FtsZ ring placement and chloroplast division. FtsZ (FITC) and chlorophyll fluorescence are represented by pseudo-color green and red, respectively.

Herzog Lab

News from the Herzog lab. We have experienced a mass exodus. Dr. Christian Beaulieu took a position at the U. of Ottawa. Dr. Luciano Marpegan took a position at the U of Quilmes, Buenos Aires. —cont'd on page 4

Herzog Lab cont'd—Dr. Jae-Eun Kang Miller has taken a postdoc position at Columbia U in NYC. Dr. Sungwon An successfully defended her PhD in Neuroscience and is now deciding which offer she will accept among pharmaceutical companies in Seoul. And Connie Tsai, who earned Honors in Biology this year, will start in the Neuroscience Program at Stanford. Mark Freeman, MSTP student, will defend his PhD in Neuroscience on Aug. 18. We also have enjoyed the arrival of Emily Slat (MSTP, Neuroscience Program), Jihee Kim (Junior, Biology major) and Manar Swaby (Prefreshman Summer Scholar).

We received an NIH RO1 grant to study “Mechanisms and modeling of networked circadian pacemaker synchronization.” Erik tested his circadian system during a 10-day trip to London, Berlin and Pisa where he served on a PhD Defense Committee, gave seminars, participated in the closing ceremonies of the EU Clocksgroup and moderated a session at a Gordon Conference on Chronobiology. Mark Freeman recently won the Best Poster at the Center for Membrane Excitability Disorders (CIMED). Luciano and Christian’s most recent paper was featured on the cover and highlighted in the Journal of Neuroscience. And the following papers were published in the past few months:

Bioluminescence Imaging Captures the Expression and Dynamics of Endogenous p21 Promoter Activity in Living Mice and Intact Cells. Tinkum KL, Marpegan L, White LS, Sun J, Herzog ED, Piwnica-Worms D, Piwnica-Worms H. Mol Cell Biol. 2011 Jul 25.

Wavelet measurement suggests cause of period instability in Mammalian circadian neurons. Meeker K, Harang R, Webb AB, Welsh DK, Doyle FJ 3rd, Bonnet G, Herzog ED, Petzold LR. J Biol Rhythms. 2011 Aug; 26(4):353-62.

Multicellular model for intercellular synchronization in circadian neural networks. Vasalou C, Herzog ED, Henson MA. Biophys J. 2011 Jul 6;101(1):12-20.

Circadian regulation of ATP release in astrocytes. Marpegan L, Swanstrom AE, Chung K, Simon T, Haydon PG, Khan SK, Liu AC, Herzog ED, Beaulé C. J Neurosci. 2011 Jun 8;31(23):8342-50.

Intracellular and intercellular processes determine robustness of the circadian clock. Hogenesch JB, Herzog ED. FEBS Lett. 2011 May 20;585(10):1427-34. Epub 2011 Apr 28. Review.

Vasoactive intestinal polypeptide requires parallel changes in adenylate cyclase and phospholipase C to entrain

circadian rhythms to a predictable phase. An S, Irwin RP, Allen CN, Tsai C, Herzog ED. J Neurophysiol. 2011 May;105(5):2289-96. Epub 2011 Mar 9.

OTHER ANNOUNCEMENTS:

—Encourage undergraduates in your lab to present their research at the 2011 Midstates Undergraduate Research Symposium in Biological Sciences and Psychology at Washington University in St. Louis - October 28-30. All expenses paid! Meeting details and online registration will be up by September 1st.

—Your Opinions and Experiences Needed! Assistant Professor Jaime Spacco seeks liberal arts faculty to participate in a short (<10 minutes) survey about perceptions and understanding of Computer Science. Please click on the link below to take the survey before the end of August.

https://spreadsheets.google.com/spreadsheet/viewform?hl=en_US&formkey=dHBTQTZodDRiYnZ3QUtSRTktMGFnV0E6MA#gid=0

Contact Jaime Spacco (jspacco@knox.edu) with questions or comments about his work. —*Erik Herzog*

Jez Lab

Congratulations to our lab members for their recent achievements!

1) **Jonathan Herrmann**, an undergrad, received an ASPB-SURF award to conduct research in plant biology this summer, working under Joe Jez’s mentorship. The project, titled “Biochemical and structure analysis of *Arabidopsis thaliana* GH3.10/DFL2: Defining its role in jasmonate or auxin regulation,” will be presented at Plant Biology 2012, which will be held July 20–24, 2012, in Austin, Texas.

2) **Corey Westfall**, a biochemistry graduate student in the lab, received a USDA-NIFA Predoctoral Research Fellowship (\$75,000 for 2011-2013).

3) **Soon Goo Lee**, a Plant Biology grad student in the the lab, received a travel award to the 2011 Korea-US Science Cooperation Conference in Park City, UT (8/2011).

4) **Loren Ramirez**, an undergrad in the lab, was award one of four 2011 Ronald McDonald House Charities HACER Scholarships. —*Joe Jez*

RESOURCES TO COPE WITH FEDERAL GRANT CHANGES

I recently filled in for Grant Specialist Jennifer Kusmanoff while she was on maternity leave. In the few short months I worked on grants, I found the application process to be a never-ending learning experience. The guidelines are always subject to change. I thought it might be helpful to include some information in this newsletter on major changes that have been made to grant guidelines for federal agencies such as National Science Foundation and National Institutes of Health in 2011. —*Erin Gerrity*

Major Changes to NSF guidelines as of 1/18/11

Cost Sharing: The PAPPG has been revised to implement the National Science Board's recommendations regarding cost sharing. Inclusion of voluntary committed cost sharing is prohibited. In order to assess the scope of the project, all organizational resources necessary for the project must be described in the Facilities, Equipment and Other Resources section of the proposal. The description should be narrative in nature and must not include any quantifiable financial information. Mandatory cost sharing will only be required when explicitly authorized by the NSF Director. See the PAPP Guide Part I: Grant Proposal Guide (GPG) Chapter II.C.2.g(xi) for further information about the implementation of these recommendations.

Data Management Plan: The PAPPG contains a clarification of NSF's long standing data policy. All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. FastLane will not permit submission of a proposal that is missing a Data Management Plan. The Data Management Plan will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. Links to data management requirements and plans relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units are available on the NSF website at: <http://www.nsf.gov/bfa/dias/policy/dmp.jsp>. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

Postdoctoral Researcher Mentoring Plan: As a reminder, each proposal that requests funding to support postdoctoral researchers must include, as a supplementary docu-

ment, a description of the mentoring activities that will be provided for such individuals. Please be advised that if required, FastLane will not permit submission of a proposal that is missing a Postdoctoral Researcher Mentoring Plan. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement. Sample can be found at: www.nsf.gov/eng/iip/sbir/Sample_Post-doc_Mentoring_Plan.doc.

Ruth Lewis, previously the Biology Library Supervisor, has put together some information for PI's about the Data Management Plan requirement of NSF on the Olin Library website, complete with examples of Plans: <http://libguides.wustl.edu/content.php?pid=134192&sid=1830383>.

Major Changes to NIH guidelines as of 1/25/11

Elimination of the error correction window: this does not affect the two-business-day application viewing window (i.e. the time an applicant has to view the electronic application image in eRA Commons upon NIH's receipt of an error-free application). Applicants still will be able to view their application and reject and submit a corrected application prior to the submission deadline. NIH encourages applicants to submit in advance of the due date to take advantage of the opportunity to correct errors and warnings and to review the application in the eRA Commons before the deadline. Applications submitted after 5 p.m. local time of the applicant organization on the due date will be subject to the NIH late policy and may not be accepted for review. <http://grants.nih.gov/grants/guide/notice-files/not-od-10-123.html>

Resubmission changes: NIH will not accept a Resubmission that is submitted later than thirty-seven months after the date of receipt ("receipt date") of the initial New, Renewal, or Revision application. <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-140.html>

Ruth Lewis has also announced an upcoming NIH Public Access Policy class, September 7th, 10 am on the Medical Campus. Please preregister if you plan to attend. Details and registration: <https://becker.wustl.edu/civicism/event/info?reset=1&id=28>. This is a very useful overview for all NIH-funded researchers or staff that assist them with their publications. Info about NIH Public Access Policy and compliance. For more information on the policy, go to: <http://scholarlycommunications.wustl.edu/issues/nih/index.html>

GRANT AWARDS

Collin-Osdoby, Patricia: “**Evaluation of a Novel Anti-Resorptive Therapy for Osteogenesis Imperfecta,**” 2/01/11-1/31/12, NIH—\$205,200

Dixit, Ram: “**Engineering a cell-free system to study the self-organization of the plant cortical microtubule cytoskeleton,**” 5/01/11-4/30/12, ICARES—\$30,000

Freeman, George Mark (Herzog Lab): “**Neural Circuit Analysis of a Mammalian Circadian Pacemaker,**” 5/01/11-4/30/12, NIH—\$27,539

Goodenough, Ursula: “**Systems Biology of Lipid Body Formation in the Green Alga *Chlamydomonas Reinhardtii,***” 8/01/11-7/31/14, DOE—\$1,160,865

Kooyers, Nicholas (Olsen Lab): “**Determining the Mechanisms of Recurrent Cline Evolution in White Clover (*Trifolium repens,*)**” 6/01/11-5/31/13, NSF—\$13,539

Lyons-Warren, Ariel: “**Multiple Roles of Inhibition Temporal Coding of Sensory Information,**” 5/01/11-4/30/12, NIH—\$28,647

Powell, Kristin (Knight Lab): “**Dissertation Research: The Effects of Invasive Plant Species on Biodiversity Across Spatial Scales,**” 6/01/11-5/31/13, NSF—\$13,913



DDPSC Fall Symposium cont'd—

Dr. Natalia Dudareva, Distinguished Professor, Department of Horticulture and Landscape Architecture, Purdue University

Dr. Jonathan Jones, Project Leader, The Sainsbury Laboratory, Norwich

Dr. Steve Kay, Dean, Division of Biological Sciences, Richard C. Atkinson Chair in the Biological Sciences, Professor, Section of Cell and Developmental Biology, University of California, San Diego

Dr. Ute Krämer, Head of the Department and Full Professor, Department of Plant Physiology, Ruhr-Universität Bochum

Dr. Sabeeha Merchant, Professor of Biochemistry, Department of Chemistry and Biochemistry, University of California, Los Angeles

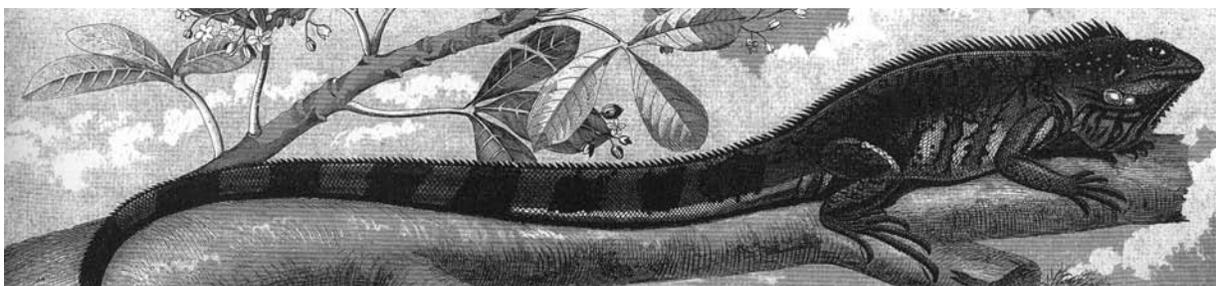
Dr. Johanna Schmitt, Stephen T. Olney Professor of Natural History, Professor of Biology and Environmental Studies Director, Environmental Change Initiative, Brown University

Dr. Patrick Schnable, Baker Professor of Agronomy; Director, Center for Plant Genomics, Iowa State University Founding Director, Center for Plant Genomics

Dr. Mark Tester, Professor of Plant Physiology, School of Agriculture, Food & Wine, University of Adelaide, based in the Australian Centre for Plant Functional Genomics; Director, Australian Plant Phenomics Facility

Dr. Jianming Yu, Associate Professor, Department of Agronomy, Kansas State University

For more information, contact Kathleen Mackey at: kmackey@danforthcenter.org.



Peter Wyse Jackson

George Engelmann Professor of Botany & President of Missouri Botanical Garden



Dr. Peter Wyse Jackson's research interests are mainly focused on the areas of plant conservation, including conservation biology of threatened plants and the development of international biodiversity conservation policies. He has worked extensively with botanic gardens throughout the world and was lead author of the International

Gardens in Conservation, now endorsed by some 500 botanic gardens. He has played a lead role in the development and implementation of the Global Strategy for Plant Conservation, adopted by U.N. Convention on Biological Diversity in 2002 and he is currently the Chairman of the Global Partnership for Plant Conservation.

His recent research has included work on Irish ethnobotany and he is currently completing a book that documents the use of wild plants in Ireland, past and present. His Ph.D. research on the taxonomy and biosystematics of Irish Cruciferae was undertaken during the 1980s in Ireland, leading to a revision of the genus *Cochlearia* L. published in *Flora Europaea* (Vol 1, 2nd Ed.). Recent research has also included Irish floristics (his publications include Floras of Co. Dublin and Irish trees), the determination of a list of Irish archaeophytes (non-native plants introduced before 1600) and the potential impacts of climate change on plant diversity in Ireland.

Event to Welcome Peter Wyse Jackson to Washington University

Washington University faculty and colleagues gathered together on April 5th to welcome Peter Wyse Jackson to the Biology Department. Dr. Wyse Jackson has taken Peter Raven's place as Director of the Missouri Botanical Garden



VICTORIAN DISTRICT, Photo Credit: Josh Monken, Courtesy Missouri Botanical Garden

and George Engelmann Professor of Botany. Chancellor Mark Wrighton opened the event by expressing his enjoyment of Wyse Jackson's different perspective as well as excitement about his desire to expand the role of MoBot in national conservation. The Chancellor presented Peter with cufflinks and his wife Diane with a scarf and pin.

Edward Macias, Provost, then spoke about the special relationship between the Garden and Wash U. Historically, Missouri Botanical Garden (MoBot) has played a very important role in education at the University. A partnership has existed since Henry Shaw approached Washington University (founded 1853) at the Garden's inception (founded 1859). Originally, Wash U's Biology Dept was Henry Shaw's School of Botany, stationed at the Garden, and included all offices and labs. Shaw also endowed the position of Engelmann professor, named after his scientific advisor George Engelmann, at the university. The person who holds this position is also to be the Director of the Garden, keeping permanent ties between the two. Peter Wyse Jackson, coming from the National Botanic Gardens of Ireland, now fills this role.

The Shaw School of Botany was eventually moved to Wash U's Danforth campus in the 1930's. People like Viktor Hamburger (experimental embryologist), Edgar Anderson (founder of the Society for the Study of Evolution), Harrison Stalker (evolutionary biologist), and Thomas Hall (zoologist) were expanding scientific research at Wash U. A Zoology Department was also created around this time. These two departments were joined in 1970 to create a unified "Biology" Department. Now the Garden serves as a lab of Wash U rather than an entire school or department. The

—cont'd on page 8

first PhD ever from Wash U was a woman from the Shaw School of Botany, Isabelle Munford. The Shaw School used to be a significant player, a huge part of Wash U, producing at least half of the first 100 PhD's from the university.

By the 1940's and 50's not much undergraduate research occurred at the Garden with a few exceptions. When Peter Raven became the new Director of the Garden in the early 1970's, projects became more accessible to students for summer work. Hands-on experience has become more and more important to education over the years. This combined with the recent diversification of research at the Garden creates the perfect environment for new programs such as Students in the Garden. Undergraduate research also crosses over and ties in with work and programs happening at Tyson Research Center (<http://www.tyson.wustl.edu/>) and Shaw Nature Reserve (1925). (<http://www.shawnature.org/nativeland/default.aspx>)

An explosion of research and the creation of facilities for this research over the last few decades have kept Missouri Botanical Garden at the forefront of international botanical research. New facilities include:

William L. Brown Center (WLBC), since 1995: a MoBot center for ethnobotany, the study of the relationship between people and plants. Its mission is "To study, characterize and conserve useful plants and associated traditional knowledge for a sustainable future." Partnerships nationally and internationally allow WLBC to share data and development/conservation ideas with the rest of the world, potentially leading to new nutritional or pharmaceutical products. (<http://www.wlbccenter.org/>)

Center for Plant Conservation (CPC), since 1984: a national cooperative organization of 36 gardens focusing on endangered plants in their local areas, headquartered at MoBot. The mission is to prevent the extinction of plants native to the US by conserving current at-risk populations and reintroducing new populations, grown at the institutions, into native habitats. CPC maintains the National Collection of Endangered Plants, containing more than 700 species. (<http://www.centerforplantconservation.org/welcome.asp>)

Center for Conservation and Sustainable Development (CCSD), since 2001: this MoBot organization's mission is "To safeguard Earth's biodiversity through the collaborative development and wise application of scientific expertise and resources". Goals include analyzing and inter-

preting scientific data as a basis for conservation decision-making, building the capacity for conservation in tropical countries by training local people in conservation science, developing community programs in tropical countries aimed at sound local management of natural resources, conserving rare and endangered plants and habitats in the Midwest, building partnerships with public and private sector organizations and agencies to foster conservation, and participating in and promoting the international conservation endeavor. (<http://www.mobot.org/plantscience/ccsd/frontpage.asp>)

BIOLOGY FACULTY IN THE NEWS

Bob Blankenship: *Turning plants into powerhouses*, Plants are less efficient than solar cells at capturing the energy in sunlight, but scientists are already thinking of creative ways to boost their efficiency. —<http://news.wustl.edu/news/Pages/22218.aspx>

Bruce Carlson: *Jump in communication skills led to species explosion among electric fishes*, His team found that changes in brain anatomy and the resulting ability to fully exploit electric signal space did indeed lead to rapid speciation, a result published in the April 29 issue of *Science*. —<http://news.wustl.edu/news/Pages/22107.aspx>

Ken Olsen: *Deep history of coconuts decoded*, Written in coconut DNA are two origins of cultivation, several ancient trade routes, and the history of the colonization of the Americas. "The big surprise was that there was so much genetic differentiation clearly correlated with geography, even though humans have been moving coconut around for so long." — <http://news.wustl.edu/news/Pages/22438.aspx>

Barbara Schaal: *Rice's origins point to China, genome researchers conclude*, "This study is a good example of the new insights that can be gained from combining genomics, informatics and modeling" —<http://news.wustl.edu/news/Pages/22263.aspx>



SAFETY SPOTLIGHT



Gerry Rohde

Welcome to “safety spotlight”.

Thankfully, we have no recent chemical spills or laboratory fires to write about.

However, as our Gateway City has experienced a significant intensification in seasonality during the past handful of days and weeks, I, the Washington University Environmental Health and Safety (E.H. & S.) auditor J.T. Ross, and others have noticed an equally significant and congruent moderation in foot safety awareness among the departmental laboratory workers and researchers, manifesting itself in much increased prevalence of sandal, flip-flop, and similar open-toed footwear sightings.

Please keep in mind that any type of accidental laboratory spill or drop will be more likely to end up on or near your feet and ankles than anywhere else, independent of the weather conditions we happen to find in the great outdoors at the time.

Therefore, closed-toed shoes and lower leg coverings are highly recommended, also as per part (i), section d., of the university's laboratory chemical hygiene plan:

"Personal apparel: Confine long hair and loose clothing. Wear shoes at all times in the laboratory but do not wear short skirts, shorts, sandals, perforated, or cloth shoes."

In practical terms, please try to think of the clothes you are wearing in your lab as a work uniform that can be stored in, say, one of our numerous hallway lockers, allowing you



**NO PANTS
NO SHOES**

NO SCIENCE

to still dress summeringly adjusted and comfortably when you're at lunch, on your way home, or just library-lounging.

Continue to be safe – and remember: “Falling objects can be brutal if you don't protect your noodle”.

Do you have any exciting news to share? Please submit announcements, lab notes and photos to Erin Gerrity:
gerrity@biology2.wustl.edu