July 2016 Issue

PUBLICATIONS


AWARDS AND RECOGNITION

Natalia Dudareva received a grant of $229,894 from Purdue University’s Office of the Provost, Summer 2016 Major Scientific Equipment Awards for her proposal for the acquisition of an Agilent 7890B GC/ 5977B Mass Selective Detector (MSD) with GERSTEL Thermal Desorption Unit (TDU). The project period for this grant is 7/1/2016 – 6/30/2017.

Orla Hart received a grant of $25,000 from Purdue’s Center for Instructional Excellence titled “Success through Transformative Education and Active Learning”, referred to as STEAM funds. The sponsor is the U.S. Department of Education. The project period for this grant is 10/1/2014 - 9/30/2018.

Jim Forney was featured in the on-line article “What Is a Paramecium?” on the LIVESCIENCE.com website. To read the article click on the link, [http://www.livescience.com/55178-paramecium.html](http://www.livescience.com/55178-paramecium.html)

NEW FACES

Rui (Gary) Gan joined the Golden lab as a PULSe student on June 17 to do research on catalytic RNAs. Gary is from China and earned his B.S. degree from Jinan University (Guangzhou) in Pharmacy in 2012 and his M.S. degree from Wuhan University (Wuhan) in Molecular Microbiology in 2015. In his free time, he likes to go fishing. Gary also says he enjoys living here but the winters are too cold to fish.

Eliana Torres-Zelada joined the Weake lab as a PULSe student on May 6, 2016. Eliana is from Peru and obtained her B.S. degree in biology from Universidad Peruana Cayetano Heredia, Lima. While obtaining her degree, she studied the genetic diversity of *Plasmodium vivax* in the Peruvian Amazon to elucidate the dynamic of transmission and to better target control interventions. In her free time she enjoys watching movies, swimming, and cooking, and she loves pets.
DEPARTMENT NEWS

2016 College of Agriculture Annual Food Drive

The Department of Biochemistry donated 95 lbs. of food and $375 in cash to Food Finders Food Bank during this year’s College of Agriculture Annual Food Finders Food Drive. Thank you to all who brought in food items and donated cash to the cause.

4-H Career Exploration Day

On June 21 Biochemistry participated in 4-H Career Exploration Day as part of 4-H Roundup, a three-day event which gives Indiana youths an opportunity to experience life at Purdue and get hands on experience in different disciplines. This year, Orla Hart led a class investigating the properties and analysis, and discussing the effects of consuming commonly used artificial food dyes. The 31 students and three teachers learned about spectrophotometry, electrophoresis and chromatography techniques.

GRADUATE NEWS

Congratulations to Long Chen (Liu lab) who passed his Ph.D. defense on June 7, 2016.

UNDERGRADUATE NEWS

Other Students and Program Descriptions

Colombia Purdue Institute (CPI) was established in October 2010 to cultivate leaders who drive economic prosperity in Colombia, Indiana and the United States through innovation in science, technology, policy and education. Three agreements were signed between Purdue and the Ministry of Education of Colombia, and the second between Purdue, Colciencias, and the Ministry of Education of Colombia and the third between Purdue’s College of Engineering and Colfuturo.
Cancer Prevention Internship Program (CPIP) is for undergraduate students based on the DURI model and engages undergraduates in cutting edge research combining two or more disciplinary strengths in cancer prevention research. Selected students begin with a full-time summer internship and continue their work with a part-time (6 - 12 hours/week) internship through the following academic year.

The Louis Stokes Alliance for Minority Participation (LSAMP) Indiana project is a collaboration among eight university campuses including IUPUI, Indiana University Bloomington, Indiana University Northwest, Purdue University West Lafayette, Purdue University Calumet, Purdue University North Central, Indiana State University, and Ball State University. The over-arching goal is to broaden the capacity of undergraduate students, especially from disadvantaged or underrepresented groups who (1) graduate with degrees in Science, Technology, Engineering and Mathematics (STEM), (2) enter graduate programs in STEM disciplines, and (3) enter the workforce in STEM careers.

The Molecular Agriculture Summer Institutes (MASI) were created by Purdue Agriculture’s Office of Academic Programs as part of the Plant Sciences Research and Education Pipeline. They are designed to expose undergraduates and Indiana high school students to the wide-ranging field of plant sciences and STEM fields.

The Research Experiences for Undergraduates (REU) program is sponsored by the National Science Foundation and supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation.

The Summer Research Opportunity Program (SRP) aims to encourage talented undergraduate students from social and economic backgrounds that are underrepresented in research careers to pursue graduate education, and to enhance their preparation for graduate study.

Purdue College of Engineering launched the Summer Undergraduate Research Fellowships (SURF) program in 2003. The 11-week program is designed to enhance classroom learning, involve undergraduates in real problem solving, and spark interest for research careers in science and engineering. SURF students from engineering, science, and technology disciplines are paired with a professor and one or more graduate student mentors to work on interdisciplinary research projects with practical applications.

Undergraduates in Our Research Labs This Summer

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<thead>
<tr>
<th>Name</th>
<th>Program</th>
<th>Lab Name</th>
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<tbody>
<tr>
<td>EVAN ADAMS</td>
<td>SURF</td>
<td>DUDAREVA LAB</td>
</tr>
<tr>
<td>ROCHELLE CAMDEN</td>
<td>BCHM 498</td>
<td>CHAPPLE LAB</td>
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<tr>
<td>AUSTIN DIXON</td>
<td></td>
<td>LOHMAN LAB</td>
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<tr>
<td>ALBERT DJOUM</td>
<td></td>
<td>LIU LAB</td>
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NOT PICTURED: Aysha Davis, BCHM 498 (Ogas lab), Emma Lendy (Golden lab), Travis Lantz (Weake lab), Raeya Ogas (Dudareva lab), and Emily Overway, NSF Funds (Ogas lab).

Congratulations to Biochemistry’s Kyle Schulz (B.S. 2016) on being selected one of eight students for the annual STEM fellowship program. To read the complete Purdue University News story, click on the link below.
http://www.purdue.edu/newsroom/releases/2016/Q2/eight-students-selected-for-annual-stem-fellowship-program.html

From left, Amir Ahmadi, Cat Michie, Kyle Schulz, Caroline Gregerson, Michael Gruesbeck, Catherin Hayt and Stephanie Biery are students participating in this year’s STEM Goes Rural program. (Not pictured: Jonah Polley) (Photo/College of Education)
GOING THE EXTRA MILE

Clint Chapple attended Plant Biotech 2016, a joint meeting of the Canadian Society of Plant Biologists and the Canadian Association for Plant Biotechnology, in Kingston, Ontario Canada on June 19 - 21. He presented a talk entitled “Exploring the limits of lignin modification”.

Natalia Dudareva traveled to the Institute for Chemical Ecology, Jena, Germany on June 20 - 21 for a symposium on “Complex chemistry and its ecological context”. She delivered an invited lecture entitled “A story of supply and demand: Benzoic acid biosynthesis and beyond”. While in Germany, Natalia also visited Leibniz Institute of Plant Biochemistry, Halle, Germany on June 22 - 23 and presented an invited seminar entitled “A journey through the plant metabolic pathways to volatile emission”.

Natalia Dudareva attended the Gordon Research Conference on Biogenic Hydrocarbons and the Atmosphere in Girona, Spain on June 26 - July 1 and delivered a talk entitled “Volatile organic compounds: How do plants release them?”.

Humaira Gowher gave a talk at New England BioLabs, Ipswich, MA on June 8 - 10. Her talk was entitled “Biochemical and biological regulation of Dnmt3a and 3b”.

Andy Tao and graduate students Justine Arrington, I-Hsuan (Blair) Chen, Chuan-Chih Hsu, Li Pan and Mayank Srivastava, traveled to the American Society for Mass Spectrometry (ASMS) conference in San Antonio, TX from June 4 - 11. Justine presented a poster entitled “Implementation so siKALIP to identify the substrates of CDKL5, a kinase linked to severe neurodevelopmental disorders” and Blair presented a poster entitled “Development of a Microfluidic platform for high throughput disease biomarker discovery”.

Several Biochemistry faculty, staff and students attended the Midwest Chromatin & Epigenetics Meeting in Grand Rapids, MI from June 5 - 7.

- Clint Chapple and his graduate student Xiangying (Candy) Mao. Candy presented a poster entitled “Investigating the interaction between MED5 and CDK8 in Arabidopsis”.
- Joe Ogas and his lab members, KK Ho, Associate Research Scientist, graduate student Ben Carter, and undergraduate students Mary Witucki and Jacqueline Phipps. Ben presented a poster entitled, ”The Chromatin Remodelers PICKLE and PIE1 Cooperatively Promote Gene Expression and Development”.
- Beth Tran and her graduate student Siwen Wang. Siwen presented a poster entitled, ”RNA-Seq Reveals Co-regulation of Metabolic Gene Expression by the RNA Helicase Dbp2 and the Cyc8-Tup1 Co-repressor Complex”.
- Humaira Gowher was an invited speaker. Her talk was entitled “An epigenetic switch regulates de novo DNA methylation at a subset of pluripotency gene enhancers during embryonic stem cell differentiation”. Also attending were her graduate students Chris Petell, who presented a poster entitled “An epigenetic switch regulates de novo DNA methylation at a subset of pluripotency gene enhancers during embryonic stem cell differentiation”, Allison Norvil whose poster was entitled ”Investigating the catalytic mechanism of de novo DNA methyltransferase 3b, and Lama Alabdi.
- Ann Kirchmaier and graduate student Hunter Balduf.
SAFETY CORNER
By Karyn Rodkey

Need Help After 4pm or on the Weekend?
- 80 Freezer break down
- Lab getting too hot
- Toilet flushing constantly

Call the Purdue Police Non-Emergency Number
49-48221
Remember, in any EMERGENCY call 911

IT CORNER
by Joe Levell

It’s helpful from time to time to remind people of the IT resources that are available at Purdue. Here is a list of the resources that you might find useful.

Central IT Organizations
ITaP - Information Technology at Purdue. This is the central IT services and support provider for most of Purdue. Here is their website. http://www.itap.purdue.edu/index.html
AgIT - College of Agriculture Information Technology – This is the central IT services and support for the College of Agriculture. Here is their website. https://ag.purdue.edu/it/Pages/default.aspx
  - AgIT Support Page - https://ag.purdue.edu/it/Pages/Help.aspx
RCAC - Rosen Center for Advanced Computing. High performance computing resources. Here is their website. https://www.rcac.purdue.edu/
  - Contact Us Page for the RCAC - https://www.rcac.purdue.edu/about/contact/

General IT Resources
  - Purdue Directory - Look up simple information like phone numbers and email addresses about any Purdue person. - https://www.purdue.edu/directory/
  - Antivirus Software - Free McAfee Antivirus for all Purdue Career Account holders. -- https://www.purdue.edu/securepurdue/download/
  - Career Account Page - Access information about your Career Account and change your password. -- https://www.purdue.edu/apps/account/Account
  - Purdue on the Hub - Heavily discounted software like Adobe’s Creative Cloud and Microsoft operating systems. - http://purdue.onthehub.com
  - UniTime – Facility and conference scheduling system - https://roomschedule.mypurdue.purdue.edu/Timetabling/login.jsp
  - Purdue Employee Portal – Aggregated list of Purdue services such as ESS, Cognos, and Ariba. - http://www.purdue.edu/employeeportal/

University Sponsored Software – Generally free to all Purdue Faculty & Staff.
  - MathType - https://www.itap.purdue.edu/shopping/software/product/mathtype.html
  - PyMOL - https://www.itap.purdue.edu/shopping/software/product/pymol/index.html
  - SecureCRT & SecureFX - https://www.itap.purdue.edu/shopping/software/manufacturer/vandyke.html
BIRTHDAYS

Ben Carter        Fred Gimble        Samantha Lee
Joseph Lynch     Rachel McCoy       Aamir Mir
Chen Shao

UPCOMING EVENTS

August 6          Commencement
August 19         BCHM Research Retreat
August 22         Classes begin