

## CROPS February Newsletter

List for PSI CROPS Student/Postdoc Organization <CROPS-PSI@LISTSERV.UNL.EDU>  
on behalf of  
Crops PSI Group <cropspsi@UNL.EDU>

Mon 1/27/2020 3:17 PM

To: CROPS-PSI@LISTSERV.UNL.EDU <CROPS-PSI@LISTSERV.UNL.EDU>



### **From the Collective Research Organization of Plant Scientists (CROPS) of PSI:**

As we begin a new semester at UNL, we have taken a look back at the events, social outings, and invited speakers and are so excited with the successful turn-outs and feedback we have received. We have been planning over the break and have planned an amazing lineup of speakers, workshops and webinars for this semester and we can't wait for you all to take part!!

If there is anything you would like to see CROPS sponsor or anyone you would like to us invite to UNL, email us at [CropsPSI@unl.edu](mailto:CropsPSI@unl.edu) !

For more information, stay tuned via [email](#), [website](#), [Twitter](#), and [Instagram](#)!

Don't forget check out our **upcoming events**, **job announcements**, and **lab highlight!**

-The CROPS 2019/20 Board

## **CROPS 2020 Travel Grant**

The CROPS Travel Award, granted on a competitive basis, provides funding for graduate student or post-doctoral travel expenses for those who are personally presenting the results of their research. Typical awards will be near \$500 for domestic travel and \$750 for international travel. After meeting basic eligibility criteria, grants are awarded to those who prepare applications that best describe the scholarly significance of their work.

To apply, please complete our [Google Form Application!](#)

**Deadline to apply is February 7th 2020!**

## **February Lab Highlights**

## This month we are highlighting Dr. James Schnable's Lab!

### Dr. James Schnable

The Schnable lab works on a wide range of questions related to genome evolution, quantitative genetics of phenotypic plasticity, and high throughput phenotyping/digital agriculture. The common thread that runs through all the different projects in the lab is a focus on maize, sorghum, and their wild relatives. Working with *Tripsacum*, a wild relative of corn that is native to Nebraska, we've identified suites of fast evolving proteins that seem to be linked to *Tripsacum*'s ability to tolerate cold and freezing temperatures, essential to surviving in the wild in Nebraska, but completely absent in maize and sorghum species which were domesticated in the tropics (<https://doi.org/10.1111/tpj.14376>). Using programs originally designed to make 3D plant models for video games and machine learning algorithms we are teaching computers how to understand and measure the three dimensional properties of plants from conventional 2D images. The same thing our own human brains do (<https://doi.org/10.1101/706994>). The lab also recently used data on root morphology of entire maize and sorghum panels, collected in the field, to show that many of the same conserved genes control variation in root phenotypes in both related species (<https://doi.org/10.1104/pp.19.00752>)

For more information visit Schnable Lab  
website:<http://schnablelab.org>



## Upcoming Events!

### **CROPS Special Seminar: Writing Workshop!**

**February 27-28<sup>th</sup>**

We are excited to announce a science communication writing workshop with **Dr. Nancy Hofmann** on **February 27th and 28th** (Place/time TBD). If you are interested in taking this workshop, please register [here](#). Indicate if you would like to have a one-to-one meeting with the speaker to discuss examples of your own writing for advice.

Dr. Nancy Hofmann received her PhD in Cellular and Molecular Biology from UC Davis, as well as, a post-doc appointment. Since 2008 she has been a Science Editor for The Plant Cell and since 2009 is a co-founder for Plant Editors. One of Dr. Hofmann's talents is to communicate research to a non-science audience.

### **PSI Research Group Meeting**

**February 20th 4:30pm, E103 Beadle Center**

Work-in-progress talks from the labs of Dr. Cerutti and Dr. Van Etten will be given; food and refreshments will follow in the Beadle Center Atrium

**Biotechnology / Life Sciences Seminars  
4:00pm, E103 Beadle Center****January 29<sup>th</sup>**

*"Modifying biological function using conformational trapping by customized synthetic antibodies"*  
by Dr. Anthony Kossiakoff, University of Chicago.

**February 5<sup>th</sup>**

*"Modeling plants in computer graphics"* by Dr. Bedrich Benes, Purdue University.

**February 12<sup>th</sup>**

*"Deep look into deep soils: Microbial ecology and carbon cycling below the rooting zone"*  
by Dr. Neslihan Taş, Lawrence Berkeley National Laboratory.

**February 19<sup>th</sup>**

Dr. David Sela, University of Massachusetts.

**February 26<sup>th</sup>**

Dr. Amanda Ramer-Tait, University of Nebraska-Lincoln

**CROPS Career Panels**

*Questions, answers and tips for a successful career*

As part of the PSI-Symposium and the Agricultural Research Division meeting students and post-docs had the great opportunity to meet with professionals in a wide variety of career areas to discuss and learn about what it takes to prepare for a specific career and what it takes to be successful in general. The panelist were at the PSI- Symposium: Aaron Hummel (Pairwise Plants), Erich Grotewald (MSU), Jessie Alt (Corteva), Katie Dehesh (UC Riverside). At the ARD meeting Donna Jo Denison (Cassidy and Associates) George Burba (LI-COR), Stewart Bauck (Neogen Corporation), Edward Cargill (Bayer Crop Science), Shane Farritor (Professor of Mechanical Engineering at UNL).

Were you at the panel and had questions that didn't get asked? Or were you unable to attend?

Visit our [website](#) for transcripts of the panel and it will be just like you were there!

**Job Opportunities, GSA Due Dates, and Postdoc Info!**

Are you a new postdoc at UNL? Not sure what all you need to need, or struggling to find housing? Check out this [link](#) to Grad Studies for all that info and more! Also, UNL offers a travel grant for postdocs! Check of this [link](#) for more info!

Interested in teaching? Check out the UNL Center for Research Innovation, Teaching and Learning (CIRTL) [here](#) for workshops,



seminars and certifications! CROPS also has  
a [link](#) on our website for more info!

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