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Friday Dec 13, 2024



plants 3d

8	EVENT SCHEDULE
1:00pm	PRE-EVENT SOCIAL
1:30pm	DANIEL KOENIG "Direct observation of a century of crop evolution"
2:00pm	VINCENT CERBANTEZ "Cis-regulatory logic of developmental robustness in shoot meristems"
2:15pm	STEPHANIE MARTINEZ "Microscopic blades, catastrophic impact"
2:30pm	JUAN DU "Spatiotemporal nucleation of photobodies"
2:45pm	EVA OTTUM "Yeast Sex"
3:00pm	ANNALISE KANE "Evolution of inter-organismal strigolactones in seed plants"
3:30pm	PAUSE
	2024 CEPCEB AWARDS "Campbell Undergraduate Fellowship" "Bailey Farms Outstanding Graduate Student Researcher"
3:40pm	AWARDS COMMITTEE Dawn Nagel Associate Professor and Chair Adam Jozwiak Assistant Professor James Burnette Academic Coordinator & Campbell Award Presenter Amancio de Souza Academic Coordinator
	Oluwafemi Alaba Postdoctoral Researcher



Friday Dec 13, 2024 EVENT SCHEDULE

JULIA BAILEY-SERRES

KENNETH BIRNBAUM

NEW YORK UNIVERSITY 22ND NOEL T. KEEN DISTINGUISHED LECTURER

"How cells change over time: comparative single-cell genomics in crops"

5:00pm

4:00pm

5:10 - 6:30pm

RECEPTION

CLOSING REMARKS

The Center for Plant Cell Biology synergizes interdisciplinary research around significant questions about form, function, and environmental interactions of plants. CEPCEB research spans from fundamental discovery to futuristic application. Established in 2002 by Professor Natasha Raikhel as an interdisciplinary "hub" for systems biology, CEPCEB established core facilities for bioinformatics, proteomics, and advanced microscopy. Strategic initiatives of IIGB and CEPCEB have fostered interactions between biologists, chemists, applied mathematicians, statisticians, and physicists.

CEPCEB aids early engagement of diverse students in classrooms and research labs. CEPCEB's first training grant was our NSF Research Experiences for Undergraduates program (02-present), thanks to many, especially Carolyn Rasmussen, Thomas Eulgem, Howard Judelson and Patty Springer. The Dynamic Genome freshman learning lab developed by distinguished plant geneticist and Howard Hughes Medical Institute.

Professor Sue Wessler, with Jim Burnette, engaged 100s in active plant projects. Generous support by the family of science author Neil Campbell has been essential for the DG and our annual recognition of an undergraduate researcher. When CEPCEB began, only a handful of plant genes had known function. Our NSF ChemGen IGERT training grant facilitated the identification of small molecules that perturb plant pathways in a dose and time-dependent manner, Circumventing genetic redundancy and lethality. Used effectively to study cell biology and defensed by CEPCEB labs, a tour de force was the discovery of the abscisic acid receptor family by Sean Culter and collaborators. The informatic framework for information and prediction of

bioactives by Thomas Girke's team facilitated discovery of safe small molecules by Anand Ray's group that deter mosquitos.

Friday

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Our mission has evolved to foster interdisciplinary research that spans from discovery to impact. Our NSF Plants3D NRT program trains students in biological or bio/chem engineering programs in collaborative product design and entrepreneurship around challenges. A catalyst, the annual "Design Tournament" will continue beyond the grant through a gift from Bailey Farms, who funds our annual graduate student award.

The annual Distinguished Lecture is named after distinguished plant pathologist and CEPCEB pioneer Noel T. Keen. This year we add Ken Birnbaum to the long list of inspiring scientists whose work has laid the foundation for discovery to implementation in topics ranging from plant development and systems biology, to crop protection and improvement, and production of high-value plant metabolites in microbes.