CEPCEB

In 2002, Natasha Raikhel established the Center for Plant Cell Biology (CEPCEB) with the goal of developing a "modern biotechnology hub" within the Institute for Integrative Genome Biology (IIGB) and which would include bioinformatics, proteomics, chemical genomics, and advanced microscopy core facilities. It was Natasha’s vision to form a truly multidisciplinary Center that embraced “system-based” research – the melding of computational approaches and technological innovations with molecular and cellular biology. CEPCEB’s interdisciplinary initiatives have reached researchers across campus and have brought together members of biological science, engineering, computing and chemistry departments. This was synergized by the Center’s NSF IGERT training grant in Chemical Genomics, led by Julia Bailey-Serres, who has directed the Center since 2013. Today, CEPCEB is a vibrant community of over 60 scientists addressing fundamental questions of plant biology with an eye on translational research and with applications spanning agriculture to biotechnology.

It is with great pleasure that CEPCEB announces the inaugural Natasha V. Raikhel Award in Research Innovation and Science Leadership. This award honors Natasha’s legacy as a pioneering researcher and effective leader within the IIGB community and beyond. The award will be bestowed biennially to an outstanding faculty or non-Academic Senate member of IIGB.

Each year CEPCEB recognizes research excellence in the areas of plant cell and molecular biology, genomics, bioengineering, and bioinformatics at the postdoctoral, graduate student, and high school student levels. These awards are funded through the CEPCEB Award Fund, which relies upon donations. Since 2005, CEPCEB has presented the Neil Campbell CEPCEB Undergraduate Award for Outstanding Research. This is made possible through the generous contributions of Rochelle Campbell in memory of her husband, an esteemed biology educator and Visiting Scholar in the Botany & Plant Sciences Department for 15 years.

Each December a prominent scientist is invited to present the Distinguished Noel T. Keen Lecture to the CEPCEB community. This series honors an eminent molecular plant pathologist and one of the first supporters and members of CEPCEB, Noel Keen, who brought considerable recognition to UCR through his visionary research on bacterial virulence and plant defense. The Center is deeply grateful to Dr. Keen’s widow, Diane, for establishing an endowment to help support this special lecture series.

Distinguished Lecturers and research excellence awardees since the Center's inception are listed on the IIGB website at [http://cepceb.ucr.edu/endowments/cepcebfund.html](http://cepceb.ucr.edu/endowments/cepcebfund.html).
PLANT ADAPTATIONS TO CLIMATE CHANGE

15th Annual CEPCEB Symposium

Dawn Nagel and David Nelson, Co-organizers

10:00 AM REGISTRATION & CONTINENTAL BREAKFAST

10:30 AM WELCOME: Julia Bailey-Serres, CEPCEB Director

Session Moderator: Dawn Nagel
Assistant Professor

10:35 AM Sean Cutler, Professor
Botany & Plant Sciences
"Programmable Plants"

10:55 AM Peggy Mauk, Director of Agricultural Operations
Botany & Plant Sciences
"Avocado Production Challenges in the 21st Century: The Challenge of Salinity"

11:15 AM Jinzheng Wang, PostDoc
Botany & Plant Sciences
"Plastidial Signal Initiates Interorganellar Communication and Expands the Phytochemical Diversity of Secondary Metabolites"

11:30 AM Mauricio Reynoso, PostDoc
Botany & Plant Sciences
"Dynamics in Gene Regulation from Chromatin to mRNA Translation Under Submergence"

11:45 AM Wenwei Lin, PostDoc
Botany & Plant Sciences
"FERONIA's Sensing Cell Wall Pectin Activates ROP GTPase Signaling in Arabidopsis"

12:00 PM Albert Do, Grad Student
Botany & Plant Sciences
"Strategies for Investigating Arabidopsis Meristem Dynamics"

12:10 PM – 1:00 PM LUNCH

1:00 PM Nathan Gabor, Assistant Professor
Physics & Astronomy
"From Heat Engines to Green Leaves: A Physicist’s Perspective on Photosynthesis"

1:20 PM Robert Jinkerson, Assistant Professor
Chemical & Environmental Engineering
"Functional Genomics in the Green Lineage Using Chlamydomonas"

1:40 PM Chan Yul Yoo, Assistant Project Scientist
Botany & Plant Sciences
"Mechanism of Light Signaling in the Control of Chloroplast Biogenesis"

1:55 PM Geoffrey Fricker, PostDoc
Botany & Plant Sciences
"Predicting Forest Structure over an Elevational Gradient in the Southern Sierra Nevada Mountains Using High Resolution Airborne Remote Sensing"

2:10 PM Yanran Li, Assistant Professor
Chemical & Environmental Engineering
"Engineered Biosynthesis of Noscapine in Yeast"

2:30 PM Carolyn Rasmussen, Assistant Professor
Botany & Plant Sciences
"Using the Three Dimensional Shape of Plant Cells to Predict Probabilities of Cell Division Orientation"

2:50 PM - 3:10 PM COFFEE BREAK

3:10 PM CEPCEB DONOR RECOGNITION & AWARD PRESENTATION

3:40 PM NATASHA V. RAIKHEL AWARD PRESENTATION

Distinguished Noel T. Keen Lecture

3:45 PM Dame Caroline Dean OBE,
Project Leader of Cell and Developmental Biology at the John Innes Centre
"Sensing and Remembering Winter"

4:45 PM CONCLUDING REMARKS:
Julia Bailey-Serres, CEPCEB Director

4:50 PM EVENING RECEPTION

NOEL T. KEEN LECTURER

Professor Dame Caroline Dean OBE completed her PhD at the University of York on chloroplast development in wheat. She then spent five years as a post-doctoral research fellow in a biotech company (Advanced Genetic Sciences) in California before joining the John Innes Centre, UK in 1988 to start her own group. Caroline served as Associate Research Director of the John Innes Centre (1999-2008) and was elected to EMBO in 1999, a Fellow of the Royal Society in 2004, and to the US National and German Leopoldina Academies in 2008. She was selected as a Non-Resident fellow of Salk Institute in 2012, awarded an Officer of the Order of the British Empire (OBE) in 2004 and appointed a Dame Commander in 2016. Caroline received a BBSRC Excellence in Bioscience award in 2014, the FEBS/EMBO Woman in Science award in 2015, the Royal Society Darwin medal 2016 and the L’Oréal-UNESCO Women European Laureate 2018. She is renowned for her research on vernalization and the advancement of women in science.