

ChemGen



INTEGRATIVE GRADUATE EDUCATION and RESEARCH TRAINEE PROGRAM  
at the UCR CENTER FOR PLANT CELL BIOLOGY

The major objective of the 2005-2010 **ChemGen IGERT Program** is to provide a multidisciplinary training avenue for talented graduate students. The students will participate in research in plant or fungal biology in collaboration with chemists, engineers and/or computer scientists. The fourth annual retreat of the ChemGen IGERT Program is being held at the UCLA Lake Arrowhead Conference Center and attended by students and supervising faculty. **Peter McCourt**, Professor in the Department of Cell & Systems Biology at the University of Toronto, is featured as the keynote speaker on Friday, October 3, 2008.

## CHEMICAL GENOMICS

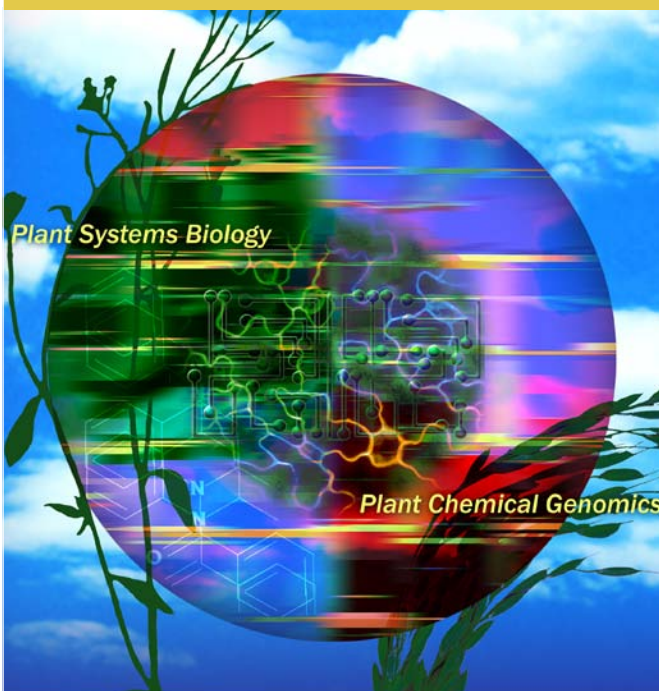
*A new approach to study the functions of genes and biological pathways*

The completion of the genomic sequences of many organisms has created a vast resource of information as well as a vast challenge in understanding how all genes function within the cellular network. Traditional genetic techniques to study gene function involve deleting the gene, or perhaps destabilizing the mRNA that comes from it, and observing biological changes. These methods are limited in their ability to make changes in a temporal and spatial manner. The field of chemical genomics arose from the realization that chemical compounds can be used to study the fundamental biology of cells through their effects on genes and gene products.

Computer Science Chemistry Engineering Plant Biology

Center for Plant Cell Biology  
at UC Riverside

[www.cepceb.ucr.edu](http://www.cepceb.ucr.edu)

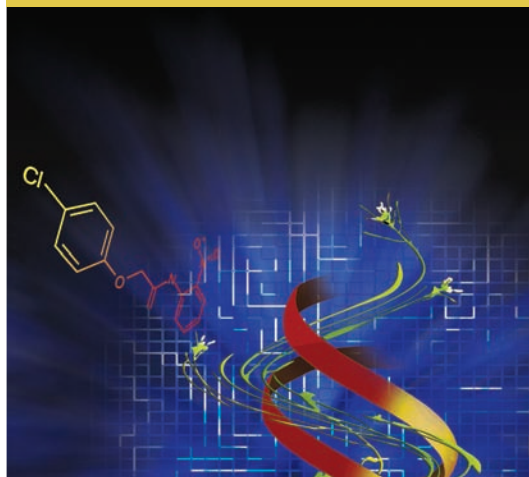


PLANT CELL  
BIOLOGY



2008  
2009

INTEGRATIVE GRADUATE EDUCATION  
and RESEARCH TRAINEE PROGRAM



IGERT

## 4th ANNUAL RETREAT



ChemGen

University of California, Riverside  
Center for Plant Cell Biology (CEPCEB)

4th ANNUAL  
ChemGen IGERT Retreat

UCLA Lake Arrowhead Conference Center  
October 3-5, 2008

ChemGen IGERT Program Director:  
JULIA BAILEY-SERRES  
ChemGen IGERT Associate Director:  
SEAN CUTLER

## FRIDAY, OCTOBER 3, 2008

**Note: Talks and Faculty Meeting are held in the Iris Room.**

3:00-5:00pm **CHECK IN**

5:00-6:30pm **OPENING RECEPTION**  
(Tavern)

6:30pm **DINNER**

8:00-8:15pm **WELCOME**

8:15-9:05pm **Dr. Peter McCourt** [Keynote Speaker], University of Toronto—  
“A Role For Strigolactones In Arabidopsis: A New Plant Hormone”

9:05-9:25pm **Lei Wang**, Botany & Plant Sciences — “New Screening and Cheminformatics Resources Provided by ChemMine”

9:25-9:45pm **Melinda Salus** — “Dissecting Plant Defense Signaling by Chemical and Molecular Genetics”

9:45-10:05pm **Theresa Dinh** — “Screening For Players Involved in TGS”

10:05pm **SOCIAL**  
(Tavern)

## SATURDAY, OCTOBER 4, 2008

8:00-9:00am **BREAKFAST**

9:00-9:20am **Kayla Hamersky** — “Metabolic Snapshots of the Model Plant Arabidopsis thaliana under Chemical and Environmental Stresses Reveal the Time Course of Metabolic Reconfiguration and the Nature of Advantageous Adaptations”

9:20-9:40am **Michelle Brown** — “Identifying Novel Compounds that Affect Endocytosis and/or Plasma Membrane Recycling”

9:40-10:00am **Eddie Cao** — “Development of Novel Searching And Clustering Methods In Chemoinformatics”

10:00-10:20am **Augusta Jamin** — “Chemical Genetics Approach to Study ROP Signaling Pathway that Regulates Tip Growth in Arabidopsis”

10:20-10:35am **BREAK**

10:35-10:55am **Jolene Diedrich** — “Facile Identification of Phosphorylation Sites in Peptides by Site Specific Photodissociation-Mass Spectrometry”

10:55-11:15am **Melissa Smith** — “Investigation into the Role of LAP-A and the Wound Response Pathway in Tomato”

11:15-11:35am **Andrew Defries** — “‘Glyco-activation’ of Small Molecules in Saccharomyces cerevisiae and Arabidopsis thaliana”

11:35-11:55am **Sean Boyle** — “Investigating Olfactory Receptor Odorant Selectivity through Chemical Informatics”

12:00-1:00pm **LUNCH**

1:00-1:45pm **FACULTY MEETING**

1:45-5:00pm **FREE TIME**  
(2:00-4:00pm)  
(Tavern)

5:00-6:30pm **POSTER SESSION**  
(Tavern)

6:30-8:00pm **DINNER**

8:00-8:20pm **Ni Li**, Chemistry — “CE Combined with Rolling Circle Amplification for Sensitive DNA and siRNA Detection”

8:20-8:40pm **Sean Cutler**, Botany & Plant Sciences — “Enlightening Chemical Genetics with Tagged Screening Libraries”

8:40-9:00pm **Eugene Bolotin**, Genetics, Genomics & Bioinformatics — “Identification of HNF4a Binding Sites Using a Protein Binding Microarray (PBM)”

9:00-9:15pm **BREAK**

9:15-9:35pm **Samer Elkashef** — “Small Molecule Inhibition of Both Upstream and Downstream Components of RNAi”

9:35-9:55pm **Charles Jang** — “Chemical Genetics Approach to Identify Arabidopsis Mitogen Activated Protein Kinase 6 Inhibitors”

10:00pm **SOCIAL**  
(Tavern)

## SUNDAY, OCTOBER 5, 2008

8:00-9:00am **BREAKFAST**

9:00-9:30am **Patricia Springer**, Botany & Plant Sciences — “Transcription Factor Networks that Regulate Plant Architecture”

9:30-10:00am **Glenn Hicks**, Institute for Integrative Genome Biology — “Next Generation Sequencing Technology at UCR”

10:00-10:30am **Jason Stajich**, University of California, Berkeley — “Evolution of Fungal Cell Wall Proteins”

10:30-10:40am **BREAK**

10:40-11:00am **Anna Charisi** — “Modeling of Target Selective and Plant-Specific Compounds”

11:00-11:20am **James Kim** — “TBA”

11:20-11:40am **Patrick Schacht** — “Inhibitors and Suppressors of the Non-receptor GEF: RIC8”

11:40am-12pm **CHECKOUT**

12:00-1:00pm **LUNCH**