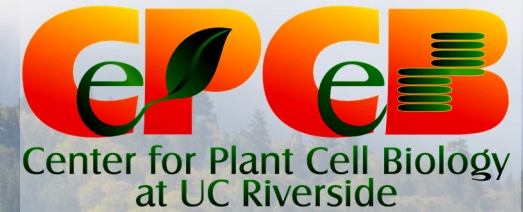


Plants—3D will train students to discover, design, and deploy biology and engineering solutions to the projected problem of massive -scale food insecurity due to climate change.

The program was made possible by a \$3 million grant from the National Science Foundation Research Traineeship (NRT) program. It will fund a total of 50 students, who will receive academic and entrepreneurial training, as well as mentorship and stipends to help them travel to professional conferences.

The NRT Program is designed to encourage the development and implementation of bold, new potentially transformative models for STEM graduate education training. This program will increase the diversity and capacity of the nation's workforce in agricultural biotechnology by building upon the institution's effective model for minority and first-generation undergraduate education in STEM.

Plants—3D unites faculty experts in plant biology, synthetic biology, and engineering to train students in transdisciplinary integration of knowledge and tools to create solutions to accelerate the translation of their discoveries to practical applications.



PLANTS-3D NRT RETREAT

November 19 - 21, 2021

"Discover, Design and Deploy"

UCLA Lake Arrowhead
Conference Center

FRIDAY

STRUCTURES

Keynote Speaker

Zoom

12:00 PM **Jennifer Nemhauser**
HHMI Scholar
Department of Biology
University of Washington

1:10 PM Break-out

Travel (on your own)

Pineview Room

5:30 PM Check-In

Dining Room

6:30 PM Dinner

Session Moderator: **Julia Bailey-Serres**

Pineview Room

7:50 PM Welcome

8:00 PM **Harvey Blanch** - Biotechnology:
historical overview

Lakeview

9:00 PM Opening Reception

SATURDAY

Dining Room

8:00 AM Breakfast

Session Moderator: **Sean Cutler**

Pineview Room

9:00 AM **Robert Jinkerson**
Engineering plant form and function to
produce the foods of the future

SATURDAY

(CONTINUED)

9:20 AM **Thomas Girke**
Large-scale Data Analysis for Genomics
and Small Molecule Discovery

9:40 AM **Quinn McFredrick**
Pollinator conservation via the study of
symbiosis

10:00 AM **Wenwan Zhong**
Analysis of Extracellular Vesicles and
Enclosed Cargos

10:20 AM Break—Coffee & Tea

Session Moderator: **Ian Wheeldon**

10:35 AM **Caroline Roper**
Developing translational tools for
Huanglongbing disease from
fundamental discoveries in the citrus
microbiome

10:55 AM **Translational research: The iCorp
experience**
UCR Fermentation Pilot Facility (RFPF),
Ben Rammelsberg and
Alcohol sensors for brewing
analytics, Nick Robertson

11:35 AM **Updates from Research Teams**
Team leaders are Marcus Harland-
Dunaway, Angie Zhou and
Rachael Hamby

Dining Room

12:00 PM Lunch

Session Moderator: **Robert Jinkerson**

SATURDAY

(CONTINUED)

Pineview Room

1:00 PM **Research Tournament
Presentations**

2:00 PM **Free Time** (Faculty-breakout)
Activities: walk, swim, tennis, lawn games, chat, nap

Lakeview Room

5:00 PM **Poster Social**

Dining Room

6:30 PM Dinner

7:45 PM **Interactive Activity** (find a partner)
Project planning and lightning talk
preparation

Lakeview Room

9:15 PM Social

SUNDAY

Check-out of rooms by 11:00 AM

Dining Room

8:00 AM Breakfast

Pineview Room

9:00 AM **Lightning Talks**

10:20 AM Break

10:35 AM **Lightning Talks**

11:30 AM **Future Directions for the NRT**

Dining Room

12:00 PM Lunch

Image by Keynote Speaker Jennifer Nemhauser