The *iPlant Collaborative*
Community Cyberinfrastructure for Life Science
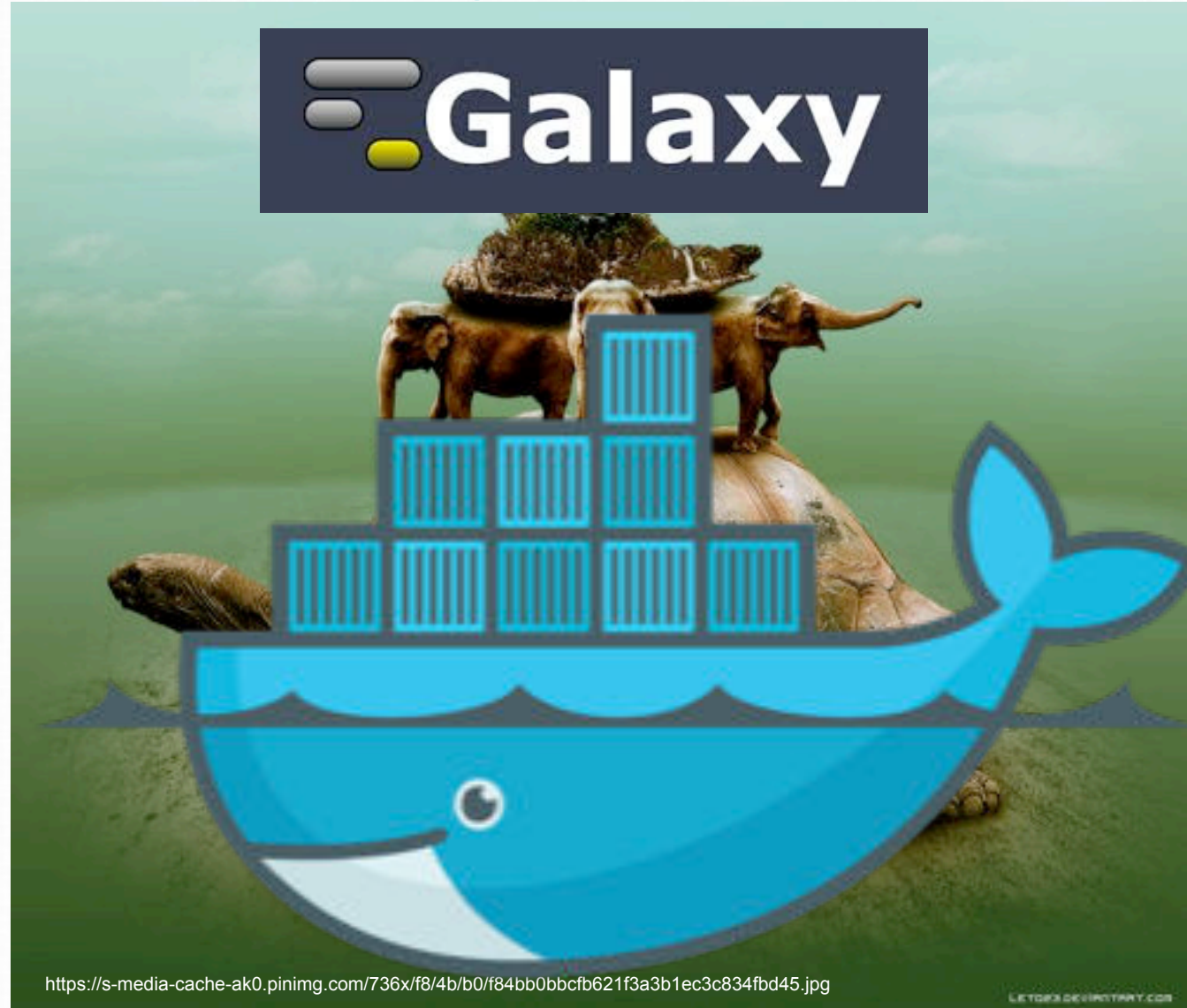
Jason Williams / **John Fonner**

Cold Spring Harbor Laboratory
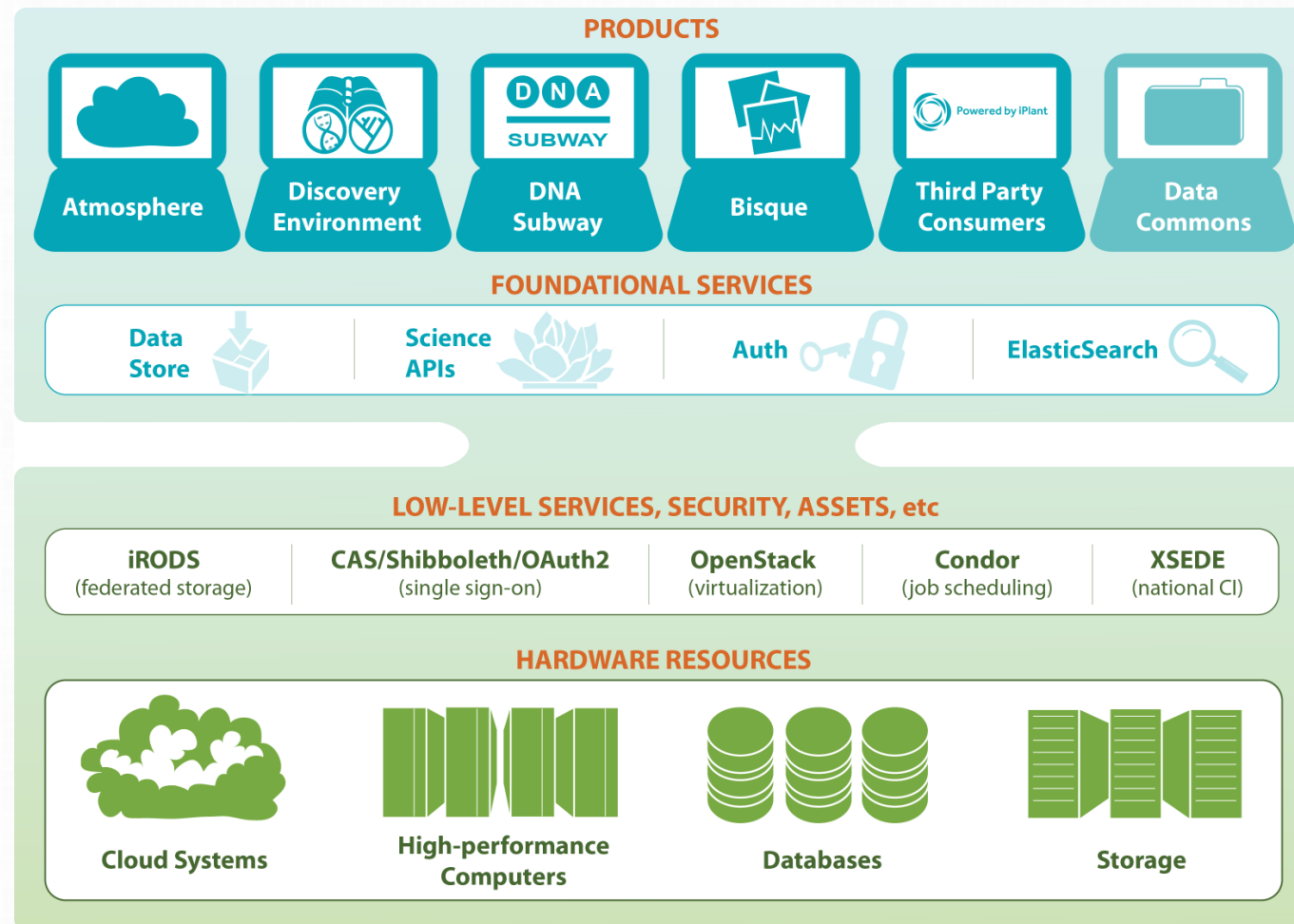University of Texas, Austin – TACC
iPlant Collaborative

Build your world

https://s-media-cache-ak0.pinimg.com/736x/f8/4b/b0/f84bb0bbcfb621f3a3b1ec3c834fbd45.jpg
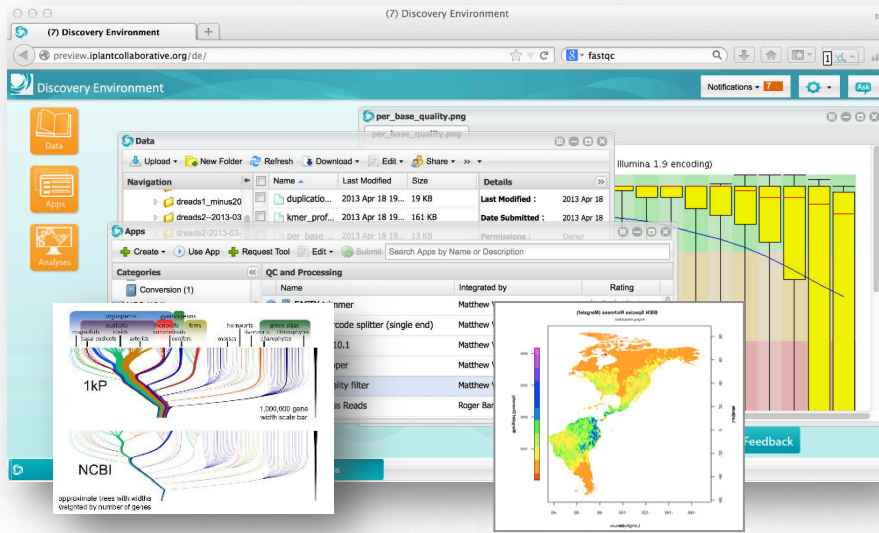
The *iPlant Collaborative*
What is Cyberinfrastructure?

What is Cyberinfrastructure

Data storage, software, high-performance computing, and people organized into systems to solve problems of size and scope not otherwise solvable.

Platforms, tools, datasets

Storage and compute

Training and support

¡DANGER!

www:engrish.com

A dangerous toy. This toy is being made for the extreme priority the good looks. The little part which suffocates when the sharp part which gets hurt is swallowed is contained generously. Only the person who can take responsibility by itself is to play.

The *iPlant Collaborative*
What problems can iPlant Solve?

Crops and model plant systems

Animal and livestock

Agronomic microbes, insects…

The *iPlant Collaborative*
Who makes up iPlant?

iPlant is a collaborative virtual organization

iPlant UK

- £2M BBSRC funded project with TGAC, Warwick, Nottingham and Liverpool- Funded as a capital investment
- Putting the Iplant system on top of TGAC Hardware, providing community access
- Work with the community to ensure take up of the system and develop resources around imaging, systems biology and NGS

**Liverpool 2 X 18month post-docs, £135K to build iplant node**

- Liverpool developing workflows NGS around wheat and Arabidopsis
- In addition to develop community led workflow around NGS

Search

iPlant: from data to discovery

The iPlant Collaborative is where scientists in all domains of life sciences can connect to public datasets, manage and store their own data and experiments, access high-performance computing, and share results with colleagues.

Take a Tour
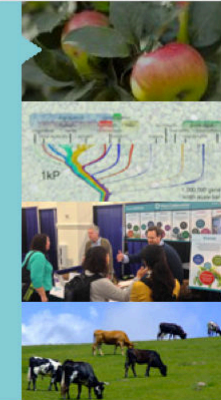
Platforms and Tools

See All

Discovery Environment
Use hundreds of bioinformatics Apps and manage data in a simple web interface

DNA Subway
Take DNA Subway to teach classroom-friendly bioinformatics for genome analysis, DNA Barcoding, and RNA-Seq

Bisque Image Analysis Environment
Exchange, explore, and analyze biological images and their metadata

Atmosphere
Create a custom cloud-based scientific analysis platform or use a ready-made one for your area of scientific interest

Data Store
Store, manage, access, and share all the data related to your research

User Portal

About iPlant

The Project
Building cyberinfrastructure for life sciences research

Science
Enabling discovery in the age of Big Data

Success Stories
How users and projects have used iPlant

Publications
Recent publications and how to cite iPlant

Help
Find answers to common questions

News

Plant Metabolic Pathways Now Powered by iPlant Collaborative
The Gramene project's Pathways plant...

Virtually One: Arizona's Universities Unite for iPlant Collaborative-Hosted Computation Seminar
The iPlant Collaborative hosted a virtual...

How to Catch a Cloud
Why cloud computing is attracting scientists —...

Upcoming Events

Interdisciplinary Workshop on Merging Crop Modeling and Genetics
Gainesville, Florida, USA

Get Started with iPlant - July 2015
Online

iPlant @ Plant Biology 2015 -

Learning Center

Get Started
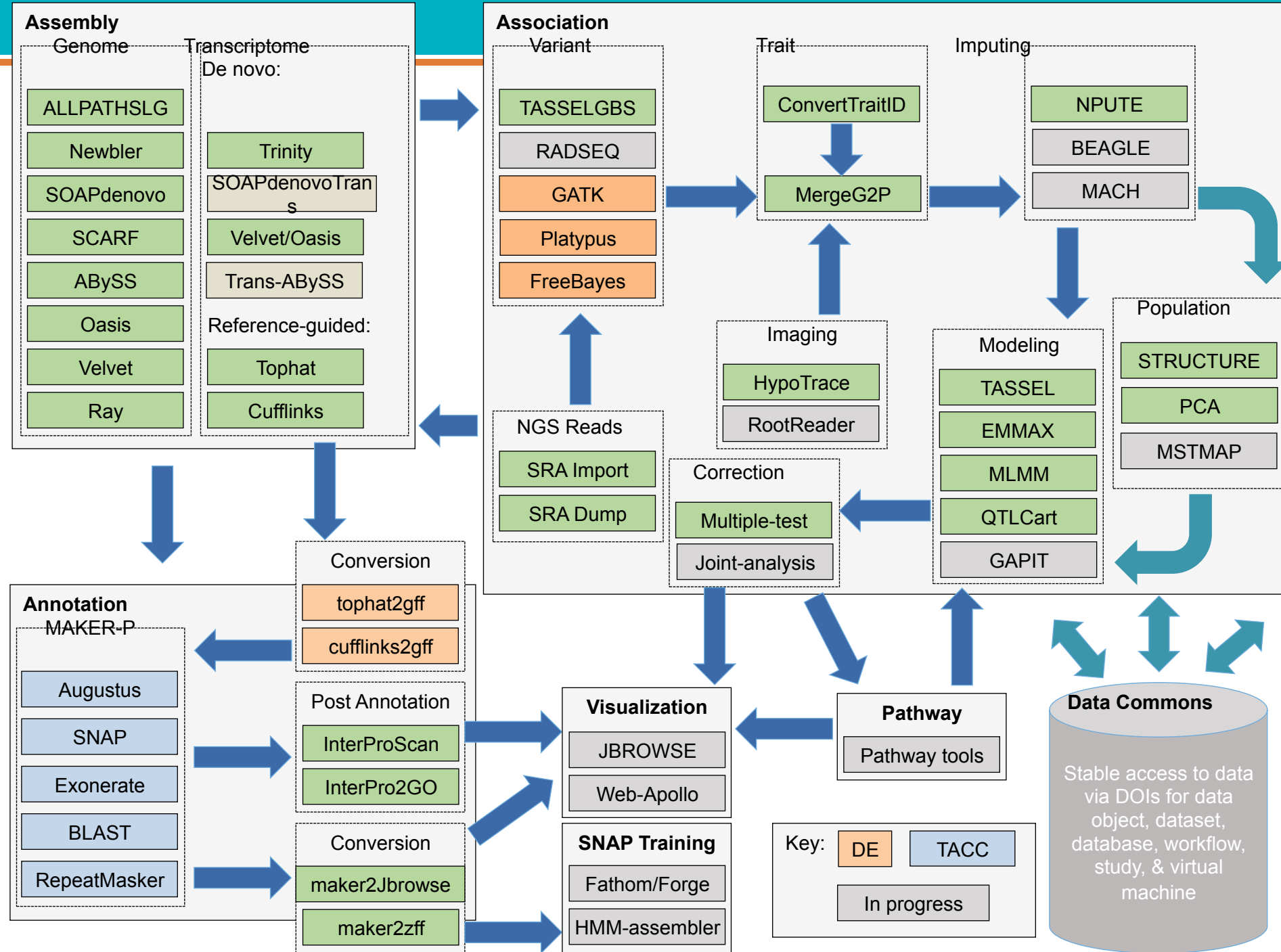First things to do when you get your account

Platform and Science Tutorials
Step-by-step guides for our platforms and specific analyses

Ask iPlant
Post your science and support questions

Science APIs

Fully customize *iPlant* resources

- ✓ Science-as-a-service platform

- ✓ Define your own compute, and storage resources (local and *iPlant*)

- ✓ Build your own app store of scientific codes and workflows

The *iPlant Collaborative*
Who makes up iPlant?

Executive Team

Parker Antin – UA
Nirav Merchant – UA
Stephen Goff – UA
Eric Lyons – UA
Matthew Vaughn – TACC
Doreen Ware – CSHL
David Micklos – CSHL

Postdocs:
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Christos Noutsos
Solon Pissis
Brad Ruhfel

Students:
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Jeremy Beaulieu
Devi Bhattacharya
Storme Briscoe
YaDi Chen
David Choi
Barbara Dobrin

John Donoghue
Yekatarina Khartianova
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Amgad Madkour
Aniruddha Marathe
Andre Mercer
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Zack Pierce

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Sathee Ravindranath
Kyle Simek
Gregory Striemer
Jason Vandeventer
Nicholas Woodward
Kuan Yang

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Sonali Aditya
Ritu Arora
Roger Barthelson
Rob Bovill
Brad Boyle
Gordon Burleigh
John Cazes
Mike Conway
Victor Cordero
Rion Dooley
Aaron Dubrow
Andy Edmonds
Dmitry Fedorov
Melyssa Fratkin
Michael Gatto
Utkarsh Gaur
Cornel Ghiban

Steve Gregory
Matthew Hanlon
Natalie Henriques
Uwe Hilgert
Nicole Hopkins
EunSook Jeong
Logan Johnson
Chris Jordan
Kathleen Kennedy
Mohammed Khalfan
David Knapp
Lars Koersterk
Sangeeta Kuchimanchi
Kristian Kvilekval
Sue Lauter
Tina Lee

Zhenyuan Lu
Eric Lyons
Aaron MarcuseKubitz
Naim Matasci
Sheldon McKay
Robert McLay
Nathan Miller
Steve Mock
Martha Narro
Shannon Oliver
Benoit Parmentier
Jmatt Peterson
Dennis Roberts
Paul Sarando
Jerry Schneider
Bruce Schumaker

Edwin Skidmore
Brandon Smith
Mary Margaret Sprinkle
Sriram Srinivasan
Josh Stein
Lisa Stillwell
Jonathan Strootman
Peter Van Buren
Hans VasquezGross
Rebeka Villarreal
Ramona Wallls
Liya Wang
Anton Westveld
Jason Williams
John Wregglesworth
Weijia Xu

Faculty Advisors & Collaborators:
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Kobus Barnard
Timothy Clausner
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Damian Gessler
Ruth Grene
John Hartman
Matthew Hudson
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B.S. Manjunath

David Neale
Brian O'Meara
Sudha Ram
David Salt
Mark Schildhauer
Doug Soltis
Pam Soltis
Edgar Spalding
Alexis Stamatakis
Steve Welch