



QSB Retreat 2021

Graduate Division

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Our Programs

- Graduate Programs
 - General Degree Information
 - Apply Now
- Graduate Program Statistics
- Research Centers & Institutes

Academics & Research

Explore the links below to see the graduate degrees UC Merced offers and learn how you can become part of our growing campus community. Find more general degree information and guidelines [here](#).

Select the graduate program below to learn more about it. To request more information about any program, please fill out our [Inquiry Form](#).

Asterisk (*) Denotes M.S./M.A. offered only along the way to Ph.D.

ACADEMIC GRADUATE DEGREES

- [Applied Mathematics \(M.S., Ph.D.\)](#)
- [Bioengineering \(M.S., Ph.D.\)](#)
- [Chemistry and Chemical Biology \(M.S., Ph.D.\)](#)
- [Cognitive and Information Sciences \(M.S., Ph.D.\)](#)
- [Economics \(M.A.*, Ph.D.\)](#)
- [Electrical Engineering and Computer Science \(M.S., Ph.D.\)](#)
- [Environmental Systems \(M.S., Ph.D.\)](#)
- [Interdisciplinary Humanities \(M.A., Ph.D.\)](#)
- [Management of Complex Systems \(M.S., Ph.D.\)](#)
- [Master of Management Professional Degree \(M.M.\)](#)
- [Materials and Biomaterials Science Engineering \(M.S., Ph.D.\)](#)
- [Mechanical Engineering \(M.S., Ph.D.\)](#)
- [Physics \(M.S., Ph.D.\)](#)
- [Political Science \(M.A.*, Ph.D.\)](#)
- [Psychological Sciences \(M.A.*, Ph.D.\)](#)
- [Public Health \(M.S.P.H.*, Ph.D.\)](#)
- [Quantitative & Systems Biology](#)
- [Sociology \(M.A.*, Ph.D.\)](#)



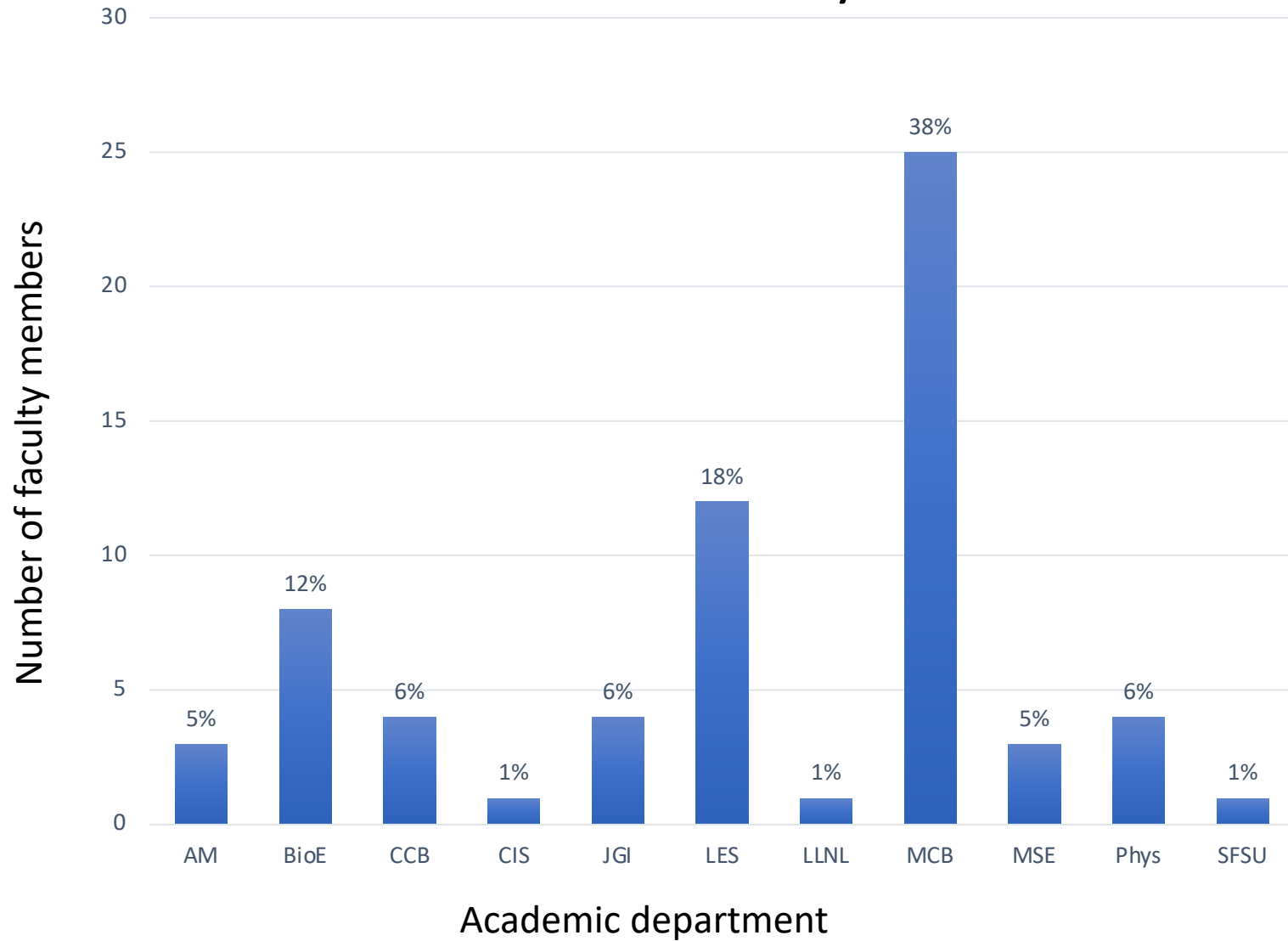
Quantitative and Systems Biology at UC Merced

Interdisciplinary program for addressing biological programs using quantitative and systems biology approaches.

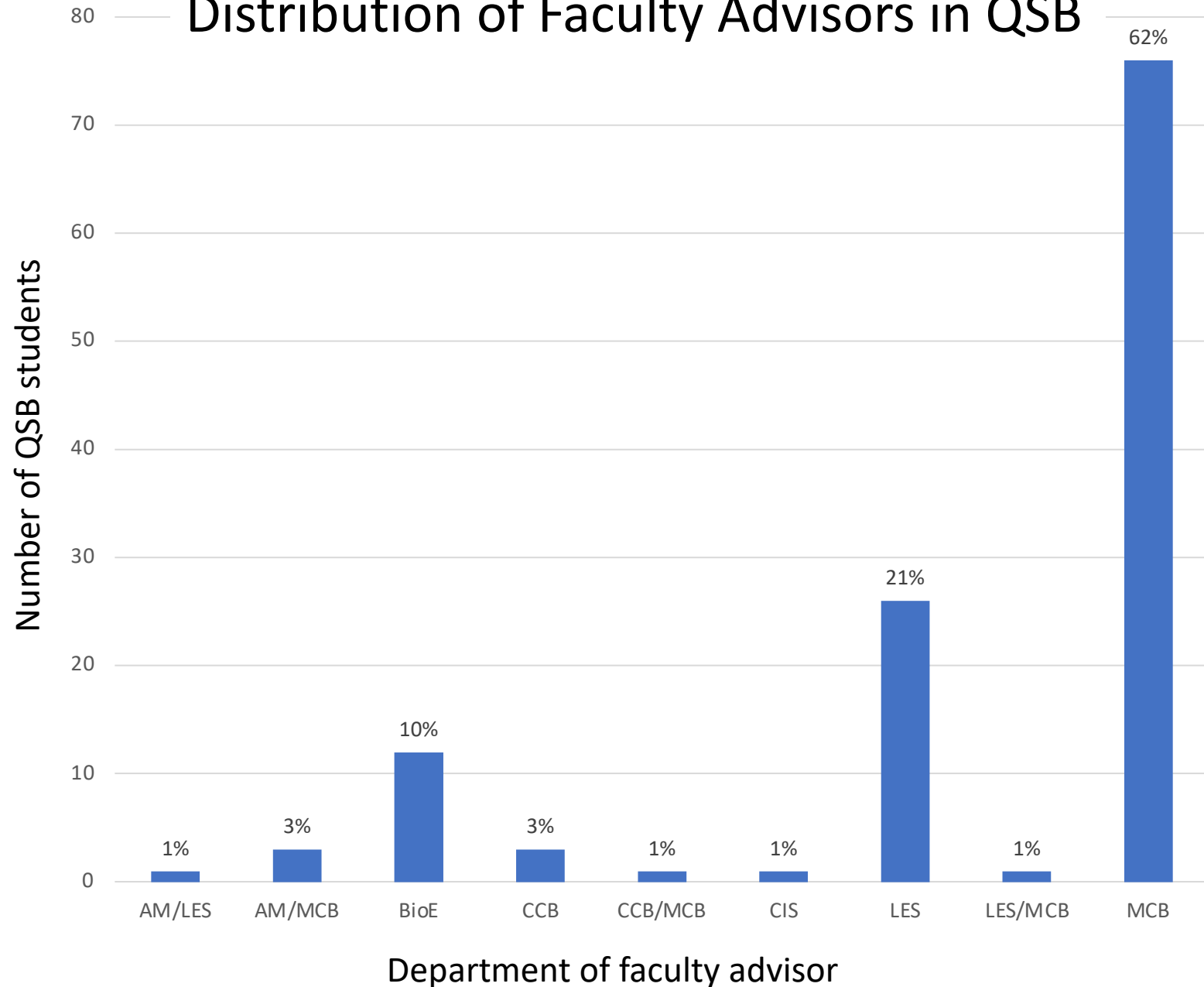
Currently, 124 graduate students, 66 faculty (from 8 Departments)

- Molecular, Cellular and Developmental Biology
- Evolution and Ecology
- Biochemistry, Biophysics and Bioengineering
- Computational and Mathematical Biology
- Microbiology and Immunology
- Biology Education and Research Pedagogy

Distribution of Faculty in QSB



Distribution of Faculty Advisors in QSB



QSB Executive Committee

Chris Amemiya (MCB) — Chair of Grad Group

Fred Wolf (MCB) — Academic Policy

Carolyn Frank (LES) — Admissions

Wei-Chun Chin (BioE) — Treasurer

Suzanne Sindi (AM) — Secretary

Yumary Vasquez — Student Representative

Sammy Villa — Student Representative

School of Natural Sciences Staff:

Jan Zarate — Grad Student Coordinator

Sharee Sok — Grad Programs Assistant

Also, thanks to many of you who helped with admissions, interviews, fellowship applications, and reviewing of fellowship applications, and to students and faculty for candid feedback

Please welcome Megha Suswaram
Theoretical Evolutionist

GradSlam finalist (3rd place) at UC Merced

[Megha's UC Merced Grad Slam Talk](#)

What's new in QSB?

Newest QSB Faculty Members



Petra Kranzfelder
MCB



Michael Thompson
CCB



Roberto Andresen
Eguiluz MBSE



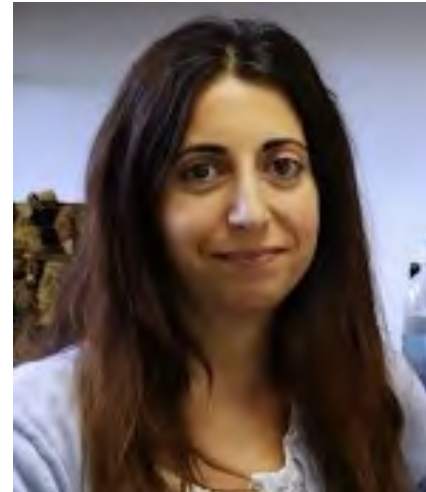
Michele Nishiguchi
MCB



Stefan Materna
MCB



Maggie Sogin
MCB



Bercem Dutagaci
MCB



Erica Rutter
AM

Incoming QSB students - 2020



Mohammed Abdulqader
(Victor Muñoz)



Beryl Ngabirano Arinda
(Juris Grasis & Nestor Oviedo)



Lucia Bazan-Williamson
(Emily Jane McTavish)



Hsiao-Ming Chang
(Wei-Chun Chin)



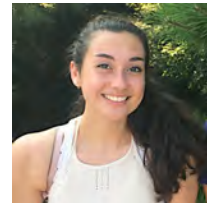
[Daravuth Cheam](#)
([Michele Nishiguchi](#))



Karen Cornejo
(Ramen Saha)



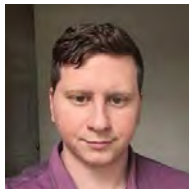
[Jarrod Cortez](#)
([Changqi Li](#))



Janna Emery
(Rudy Ortiz)



Perla Gonzalez Moreno
(Michele Nishiguchi)



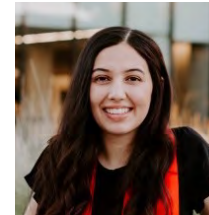
Yacoub Innabi
(Nestor Oviedo)



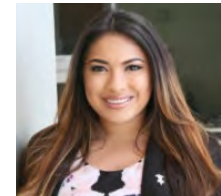
Patrick Koenig
(Shahar Sukenik & Juris Grasis)



Ching Lee
(Juris Grasis)



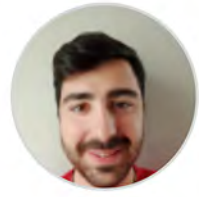
Nicole Leon
(Gaby Loots)



Dora Mendez
(Rudy Ortiz)



Lisa Paggeot
(Mike Dawson)



Pedro Perez
(Michele Nishiguchi)



Brian Pipes
(Michele Nishiguchi)



Bianca Salazar
(Danielle Edwards)



Andrea Salinas Aguilar
(Carolin Frank)



Bailey Sanchez
(Rudy Ortiz & Juri Grasis)



Taylor Sanchez
(Juri Grasis & Chris Amemiya)



Po-Shu Tu
(Chih-Wen Ni)



Kris Troy
(Aaron Hernday)



Reina Warnert
(Jessica Blois)

Incoming QSB Grad Students 2021



[Cory-James Andenoro](#)
[\(San Bernardino, CA\)](#)



[Christopher Bivins](#)
[\(Fresno, CA\)](#)



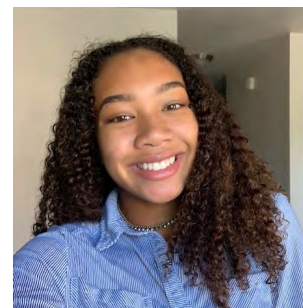
[Brandon Bogart](#)
[\(Oceanside, CA\)](#)



[Diane Brache-Smith](#)
[\(Miami, FL\)](#)



[Nathaniel Brown](#)
[\(Portland, OR\)](#)



[Arianna Daniel](#)
[\(Elk Grove, CA\)](#)



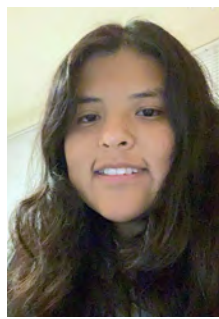
[Nimra Khurram](#)
[\(Lahore, Pakistan\)](#)



[Laura López](#)
[\(Circasia, Colombia\)](#)



[Shiwani Limbu](#)
[\(Shillong, India\)](#)



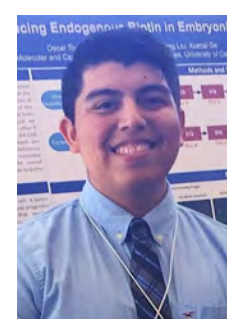
[Montserrat Santos](#)
[\(Kansas City, MO](#)
[and Mexico\)](#)



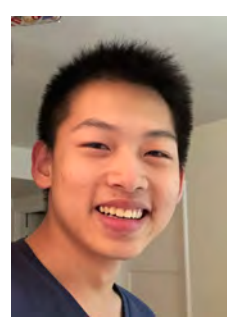
[Daphney Sihwa](#)
[\(Bulawayo, Zimbabwe\)](#)



[Morgan Sono](#)
[\(Merced, CA](#)
[and Japan\)](#)



[Oscar Torres](#)
[\(Merced, CA\)](#)



[Anthony Wang](#)
[\(Shantou,](#)
[China\)](#)

Student Awards – Quantitative & Systems Biology

Student	Award
Jackie Shay (Carolyn Frank, Jay Sexton)	UC President's Award for Outstanding Student Leadership (RadioBio) UC Merced Outstanding Teacher Award
Andrea Hed (Dave Ardell)	Committee on Research Summer Research Fellowship 2021
Candace Cole (Miriam Barlow)	Central Valley Fellowship 2021
Sammy Villa (Fred Wolf)	UC President's HSI Fellowship 2020-2021, MCB outstanding research award
Betsabel Chicana (Jennifer Manilay)	American Association of Immunologists-Thermo Fisher Trainee Achievement Award Dean's Dissertation Fellowship, NIH F31 Fellowship
Sam Fellows (Dan Edwards)	Mathias Graduate Student Research Grant
Susana Tejeda (Katrina Hoyer)	NIH F31 Fellowship
Genevieve Mullins (Katrina Hoyer)	MCB outstanding research award
Jingyi Zhang (Susan Ge)	MCB outstanding research award
Kinsey Brock (Jessica Blois)	Carol Tomlinson-Keasey Award NSF Postdoctoral Award
Robert Boria (Jessica Blois)	NSF Postdoctoral Award
Leesa Hagerman (Stephanie Woo)	CCBM Fellowship, prepared the frontispiece of a journal in which the lab's work was published
Eva Cai (Susan Ge)	CCBM Fellowship

Joint Genome Institute Summer Internship

2020 (click on name for project videos)

[Harrison Ho](#) (Zhong Wang)

[Lesly Lopez Fang](#) (Emily Jane McTavish)

[Frank Gutierrez](#) (Michael Beman)

[Jasper Toscani Field](#) (Emily Jane McTavish)

[Sarina Qin](#) (Juris Grasis, Clarissa Nobile)

2021

Beryl Arinda (Juris Grasis, Nestor Oviedo)

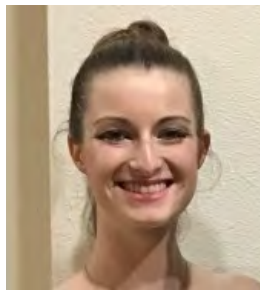
Lucia Bazan-Williamson (Emily Jane McTavish)

Maria Mendoza (Kara McCloskey)

Oscar Davalos (Katrina Hoyer)

Clarence Le (Mike Colvin)

QSB graduates who defended in the pandemic (2020-2021)



Kathryn Fischer
(Patricia LiWang)



Jeff Lauder
(Emily Moran)



Alberto Milan
(Jen Manilay)



Mo Kaze
(Mark Siström)



Yiping Guo
(Changqing Li)



Angel
Kongsomboonvech
(Kirk Jensen)



Paola Saldierna Guzman
(Steve Hart)



Danaan DeNeve Weeks
(Jessica Blois)



Cristie Donham
(Jen Manilay)



Robert Boria
(Jessica Blois)



Kinsey Brock
(Jessica Blois)



Genevieve Mullins
(Katrina Hoyer)



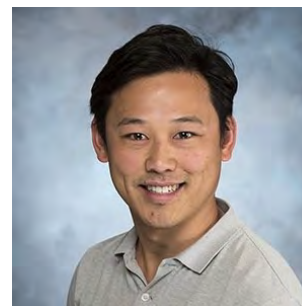
Jourjina Alkhouri
(Miriam Barlow &
Petra Kranzfelder)



Jackie Shay
(Carolyn Frank &
Jay Sexton)



Manuel Cornejo
(Rudy Ortiz)



Nicholas Hum
(Gaby Loots)



Lauren Stark
(Mike Colvin)

Academic Senate Faculty Award Winners

Carolyn Frank (LES)



*Distinguished Service to
the Academic Senate*

Rudy Ortiz (MCB)



*Contributions to
Diversity Award*

Fred Wolf (MCB)



*Distinguished Graduate
Teaching/Mentorship Award*

Winners of the Student Presentations

Long Talks:

Melanie LeGro (Oviedo lab) — Characterizing the transcriptomic landscape driving cell fate in genomic instability models

Jingyi Zhang (Ge lab) — Myomegalin regulates Hedgehog pathway by controlling PDE4D at the centrosome

Short Talks:

Anh Diep (Hoyer lab) — Innate immune cell specialization blocked by *Coccidioides*

Sammy Villa (Wolf lab) — The OTUD6 deubiquitinase catalytically regulates ribosomes in response to cellular stress

Gloria Ligunas (Materna lab) — Barcoded parallel reporter assay for *cis*-regulatory analysis

QSB Retreat Agenda

Thursday May 20th

Zoom link: <https://ucmerced.zoom.us/j/86526551939>

- | | |
|-------------|---|
| 12:30 pm | Open the site
Icebreakers |
| 1 – 1:30 pm | Chris Amemiya welcomes everyone
Brief State-of-the-Program
Megha Suswaram (GradSlam presentation)
Successes in QSB – Incoming students (2020, 2021)
Fellowships, awards, grants to QSB students
Graduates in the Pandemic
A few changes to come |
| 1:30 – 3 pm | Student talks (6 longer talks 12 + 3 min)* |
| 3 – 3:15 pm | break |
| 3:15 – 4 pm | Student talks (5 short student talks 5 + 2 min)* |
| 4 – 4:30 pm | Faculty presentations (QSB Chair Session):

Joel Spencer (BioE) — “Direct Oxygen Sensing in the Hematopoietic Stem Cell Niche by Two-photon Phosphorescence Lifetime Quenching”

Maggie Sogin (MCB) — “The metabolite interface of host-microbe interactions” |
| 4:30 - | QSB EC Announcements, Good News, Virtual Happy Hour |

Friday May 21st

Students and Faculty have different agendas as per the table below. As such there will be two Zoom links today.

Zoom link 1 will only be for DEI/antiracism training: <https://ucmerced.zoom.us/j/81478485882>

Zoom link 2 will be for all other sessions: <https://ucmerced.zoom.us/j/86526551939>

Time	Students and postdocs	Faculty
8:45 am	Introduction to the DEI/antiracism session (Sindi); link 1	
9 – 10:15 am	DEI/antiracism session run by Pamela Harris and Aris Winger; link 1	Discussion of QSB program – community building and other issues; link 2
10:15 – 11 am	6 short student talks (5 + 2 min)*; link 2	
11 am – 12:15 pm	Student and postdoc networking/games; link 2 Visiting alumni: Portia Mira (2018), Ben Ziman (2019), Katie Amrine (2013), Scott Seronello (2010), Johnny Touma (2012), Carissa Dunn (2019)	DEI/antiracism session run by Pamela Harris and Aris Winger; link 1
12:15 -	Ending remarks, student awards; link 2	

* Student Presentation Schedule (in order of presentations)

long talks

Thursday (05/20/21) 1:30-3:00 pm

Name	Lab	Title
Brian Wang	Fred Wolf	Thirst neurons that promote water seeking and limit feeding encode positive valence when searching for water.
Lauren Stark	Mike Colvin	Decrypting the Unexpected Loss of Function Mutation Y80A in vCCI with MD Simulation
Melanie LeGro	Néstor Oviedo	Characterizing the transcriptomic landscape driving cell fate in genomic instability models
Maedeh Bazmi	Ariel Escobar	Excitation Contraction Coupling in the Goldfish Intact Heart
Jingyi Zhang	Xuecai Ge	Myomegalin regulates Hedgehog pathway by controlling PDE4D at the centrosome
Yumary Vasquez	Gordon Bennett	Genome evolution in a multi-partner symbiosis

Short talks

Thursday (05/20/21) 3:15-4:00 pm

Name	Lab	Title
Anh Diep	Katrina Hoyer	Innate Immune Cell specialization blocked by Coccidioides
Daravuth Cheam	Michele Nishiguchi	Effects of Protozoan Grazing on Host-Microbial Interactions
Sammy Villa	Fred Wolf	The OTUD6 deubiquitinase catalytically regulates ribosomes in response to cellular stress
Jonathan Anzules	Katrina Hoyer	Modeling Homeostatic Expansion in Wild Type and Autoimmune System
Alexandra Saxberg	Maria Elena Zoghbi	Identification of a substrate binding site on the mitochondrial transporter ABCB10.

Short talks

Friday (05/21/21) 10:15-11:00 am

Name	Lab	Title
Gloria Denise Ligunas	Stefan Materna	<i>Barcoded Parallel Reporter Assay for Cis-Regulatory Analysis</i>
Christi Waer	Katrina Hoyer	CXCR5+CD8+ Tfc in Autoimmunity
Josephine Sami	Mike Cleary	The Effects of N6-methyladenosine (m6A) on RNA Metabolism in Neural Cells
Dean Wu	Emily Moran	Heritable variation in ponderosa pine environmental response traits

Morgan Quail

Aaron Hernday

The Heritability of Cell Fate Decisions in Candida albicans

Brian Pipes

Michele Nishiguchi

CRISPR Interference in *Vibrio Fischeri*