

What's New with BB

(Aug 1st, 2020 through Oct 2nd, 2020)

Dear BB Community,

Welcome to the most unusual Fall term. Except for our advanced lab classes, which we insisted on teaching in person, we are nearly fully remote. We just heard today that we are going to have similar remote teaching for winter term as well. I am sure all of you can't wait to see the end of this tunnel, but in the meantime, we persist and persevere in our mission of revealing how life works, changing and affecting the lives of students and all those we interact with. I'm sure I speak for all the BB faculty when I express my gratitude for your willingness to adapt to and adopt all the changes needed to keep OSU going.

This past summer has been one of racial reckoning, a summer of COVID-19, a summer of smoke and fires, but also a summer of opportunities. I appreciate all the faculty who, even though they are on 9-month appointments, continued working with no breaks. We hired one tenure track faculty, tried though unsuccessfully to recruit one more, published papers, submitted proposals, developed new out-reach classes, and enjoyed fully research-active labs.

We also hosted our first ever online Fall Retreat. In my talk, I highlighted the importance of keeping BB in the news, and the stories we tell from out of the ashes. I gave the example of my old neighborhood in Beirut fully destroyed by the August 4th explosion, an explosion that went down in history as the worst since Hiroshima, that destroyed more than half a vibrant city. Yet out of the ashes, there were stories of resilience, of people working through struggles, stories of people coming together to rebuild, and even stories of baby turtle populations rebounding in the midst of smoke and destruction.

At the retreat we set an ambitious agenda for this year including writing collaborative center and training proposals. As we embark on another term with COVID-19, remember to focus on writing and telling the good stories out of the ashes and destruction and smoke. We owe the new generation a better planet and world. Remember to vote, our science depends on it, our life and the life of our planet depend on it, our fight for equity and justice depends on it. If you have not hugged your parents or let them hug your children over the last 8 months, remember to be outraged when you see the pictures in the White House parties in the News. Work on your outrage and get the votes out. The time to stay silent is over. Let's think of ways where we can use our science and our discipline for the public good, starting with this election.

BB in the News



Masks

The message about masks has never been clearer and stronger than this week. As a department, we have decided that: Inside ALS you wear masks at all times **in rooms that will be used by other people**. This includes the BB office, and other offices that are not your personal offices and where someone else could come in at any time. The events of this week are a great reminder that we cannot take wearing masks lightly. The only exception is if you are in your personal office or in a designated office space that you are the only one using on that specific day. Wear masks outside when talking to people less than 6 ft away, anywhere you are on OSU campus.

I will resist the temptation of quoting Chris Wallace, but he put it as clearly as it can get! Speaking of masks, please check your mailboxes in ALS for a timely present.

Submitted Proposals:

Richard Cooley submitted on Oct 2nd a proposal titled, “Molecular Mechanisms of Protein Regulation by Post-translational modifications” as an R35 proposal to the NIH of the amount of \$1,757,382.00.

Ryan Mehl submitted on August 31st a proposal to the NSF for \$1.2M over 4 years to study “Ideal eukaryotic tetrazine ligations for imaging protein dynamics in live cells.”

David Hendrix with co-PIs Maca **Franco**, Rick **Cooley**, Elisar **Barbar** and Patrick **Reardon** submitted a proposal to the NIH program for “Emergency Awards: Rapid Investigation of SARS-CoV-2 and COVID-19” requesting \$2.6 million over 5 years to study “Data science approaches and informatics infrastructures for interpreting noncoding and synonymous mutations in SARS-CoV-2 and other coronaviruses.”

Afua Nyarko submitted on Aug 11 a CAREER proposal to the NSF for \$590K over 5 years to work on the project “CAREER: Assembly of binary and tertiary regulatory complexes in hippo signaling”

Publications

*From the **Barbar** group:*

Loening N.M, Saravanan S, Jespersen N.E, Jara K, and **Barbar E.** (2020). Interplay of Disorder and Sequence Specificity in the Formation of Stable Dynein-Dynactin Complexes. *Biophys. J.* Aug 5;S0006-3495(20)30587-7. doi: 10.1016/j.bpj.2020.07.023. Online ahead of print.

*From the **Freitag** group:*

Feurtey A, Lorrain C, Croll D, Eschenbrenner C, **Freitag M**, Habig M, Haueisen J, Möller M, Schotanus K, and Stukenbrock E.H. (2020). **Genome compartmentalization predates species divergence in the plant pathogen genus *Zymoseptoria***. *BMC Genomics.* Aug 26;21(1):588. doi: 10.1186/s12864-020-06871-w.

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From the **Gombart** group:

Fantacone M.L, Lowry M.B, Uesugi S.L, Michels A.J, Choi J, Leonard S.W, Gombart S.K, Gombart J.S, Bobe G, and **Gombart A.F.** (2020). The Effect of a Multivitamin and Mineral Supplement on Immune Function in Healthy Older Adults: A Double-Blind, Randomized, Controlled Trial. *Nutrients*. Aug 14;12(8):E2447. doi: 10.3390/nu12082447.

From the **Mehl** group:

Oscar B.G, Zhu L, Wolfendeen H, Rozanov N.D, Chang A, Stout K.T, Sandwisch J.W, Porter J.J, **Mehl R.A**, and Fang C. (2020). Dissecting Optical Response and Molecular Structure of Fluorescent Proteins With Non-canonical Chromophores. *Front Mol Biosci*. Jul 7;7:131. doi: 10.3389/fmolb.2020.00131. eCollection 2020

From the **Qiu** group:

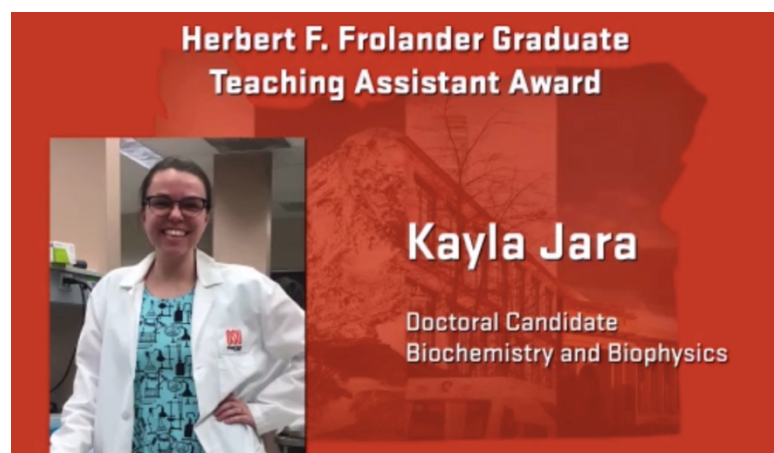
Swentowsky K.W, Gent J.I, Lowry E.G, Schubert V, Ran X, Tseng K, Harkess A.E, **Qiu W**, and Dawe R.K. (2020). Distinct kinesin motors drive two types of maize neocentromeres. *Genes Dev*. Aug 20. doi: 10.1101/gad.340679.120. Online ahead of print.

Graduate students success:

Lillian Padgitt-Cobb received a USDA graduate Fellowship

PI: David Hendrix/Lillian Padgitt-Cobb
Title: Chromosome-level assembly and genomic data science to reveal insights about cone development, disease resistance, and the evolutionary history of hop (*Humulus lupulus*)
Agency: USDA-NIFA

Kayla Jara: Herbert F. Frolander Award for Outstanding Graduate Teaching Assistants



Heather Masson-Forsythe: HP InternSteller Customer Impact Award, runner-up

BB in the News:



Lipoic acid supplements help some obese but otherwise healthy people to lose weight

A compound given as a dietary supplement to overweight but otherwise healthy people in a clinical trial caused many of the patients to slim down, research by Oregon State University and Oregon Health & Science University showed.

Study: Vitamins C, D May Help Immune System Fight COVID-19

Supplements that contain higher than federally recommended levels of vitamins C and D may be a safe, effective, and low-cost way of helping your immune system fight coronavirus disease 2019 (COVID-19), according to a study published in Nutrients.



Multivitamin, mineral supplement may lower illness

severity(Healio)

Healio Primary Care spoke with Adrian F. Gombart, PhD, principal investigator at the Linus Pauling Institute and professor in the department of biochemistry and biophysics at Oregon State University, to learn more about the findings and the effects of MVM supplementation.

Scientists recognized for research, service and mentoring excellence at 2020 University Day



Oregon State Working to Better Support Black Community

Kate Shay, an instructor in the OSU School of Biochemistry and Biophysics, participated in Black Minds Matter in winter 2019. Shay said the course had a significant impact on her, since it allowed her to understand the experiences of Black students.

BB Outreach

Congratulations to **Kate Shay** for finishing **Biochemistry Blast for High School Students: Molecular Biology of Viral Disease!** This workshop was an intensive, 6-week online experience that guided developers in building course materials that are appropriate for an online environment. The final project was a successful development of one full unit of this course. We look forward to additional workshops, and what the future might bring from Kate Shay, and our BB Faculty!

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Our Amazing GSA

GSA 2020-2021

Position Chairs

- President* - Kayla Jara
- Vice Presidents* - Aidan Estelle & Ruben Riordan
- Secretary & Treasurer* - Rosalyn Fey
- Seminar Chairs* - Amanda Radke & Amber Vogel
- Fellowship Coordinator* - Isabelle Logan
- Outreach Coordinator* - Allyson Erlendson
- Diversity and Justice Chair* - Brittany Lasher
- Media and Publicity Coordinator* - Lena Ferguson
- Party Czar* - Jesse Howe

Class Representatives

- 1st Year* Cat Hoang
- 2nd Year* Alex Eddins
- 3rd Year* Jesse Howe
- 4th Year* Phil Zhu
- 5th Year* Kasie Baker
- 6^{th+} Year* Riley Bednar

Post-doc & Research Assistant Representatives

- Mareike Möller
- John Ridenour
- Savanna Avila-Crump
- Grace Galles

Weekly Events—open to whoever is interested

COVID research meeting, every Monday at 9 am.

<https://oregonstate.zoom.us/j/96716104667?pwd=YIE5bEFtKzliZUVSMU5KL0pSdmxLQT09>

Structure Journal Club, every Friday at 9 am

<https://oregonstate.zoom.us/j/910729579>

Password: xray

Coffee hour every Friday at 4 pm

Upcoming events for this week:

CTL Tuesday Teaching + Tech Talks: Advancing Social Justice Education: Integrating Critical and Inclusive Pedagogies: Jeff Kenney, Director of Institutional Education for Diversity, Equity + Inclusion will speak on “What does it mean to practice social justice education?” Interact with peers and experts to explore the distinctions and tensions between critical and inclusive pedagogies and imagine ways to grow your praxis. Oct. 6, 10-11:50

a.m. <https://oregonstate.zoom.us/my/ctl.t4> Password: CTL. Recordings of each session will be available the following Friday (beav.es/CTLT4). Handouts, materials and resources: beav.es/BOXT4

The College of Science will host a **virtual town hall** listening to Black students in the College. The purpose of this listening session will be to center Black students' experiences and listen to their suggestions through written and spoken testimonials. The date for the listening session is set for Thursday, Oct. 8, 5–6:30 p.m. [Registration](#) is required.

Looking ahead for the next issue:

New faces and stories from our first year incoming class—stay tuned!

I hope this newsletter serves as a diversion in these tumultuous times, and an encouragement to persevere and thrive. I am sure I have forgotten many important events, please send me your news to include in the next issue.

Thanks for reading this far! I will continue with my weekly briefing, and will catch up again in two months. In the meantime, stay safe, vote and do your part in getting the votes out!

See you at the coffee/happy hour on Friday at 4 pm

Elisar