

# What's New with BB

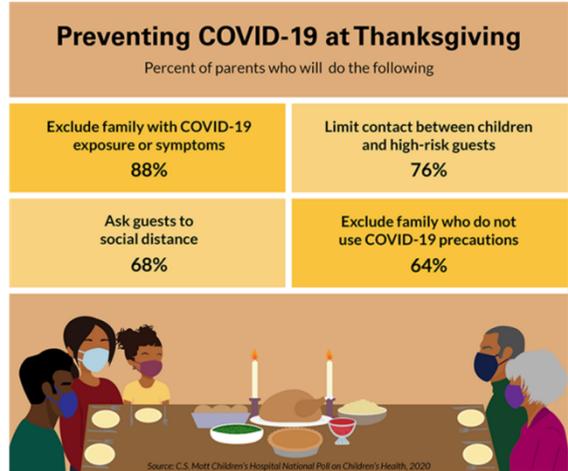
(Oct 1<sup>st</sup>, 2020 through Nov 26<sup>th</sup>, 2020)

Dear BB Community,

Happy Thanksgiving!

As we celebrate this very unusual Thanksgiving, socially distancing, staying in place, and for the most part away from extended family and family reunions -- we also reflect on several bright spots in a year where we learnt to appreciate meeting friends and family on zoom, homemade food, medical professionals, teachers, working from home, colorful stylish masks, our older parents who are still rocking it, long walks, living in a democracy, clean air, etc..

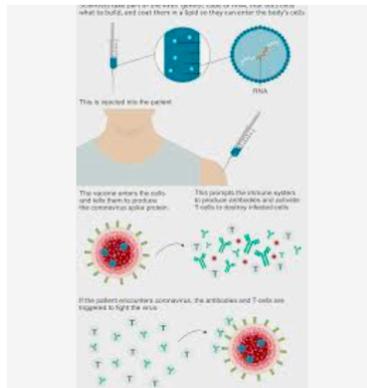
I especially want to acknowledge the hard work involved in teaching both remotely and in person this term, and to thank all of you for going well beyond the call of duty. Our BB labs are one of the very few on campus that were offered in person this year, and this was very appreciated by students. Kudos to Afua, Kari, and Kate and graduate students Amanda, Isabelle, and Kasie for teaching these classes. We are so proud to have made it this far.



Lots more to be thankful for, some examples in pictures:



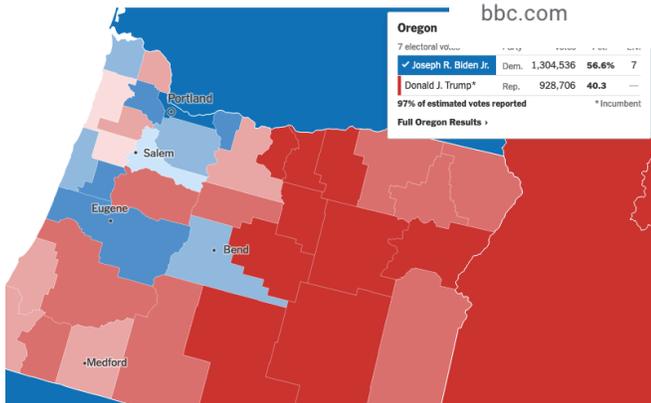
Thankful for Oregon



Covid vaccine: Pfizer applies f...  
bbc.com



For Georgia and Stacey Abrams

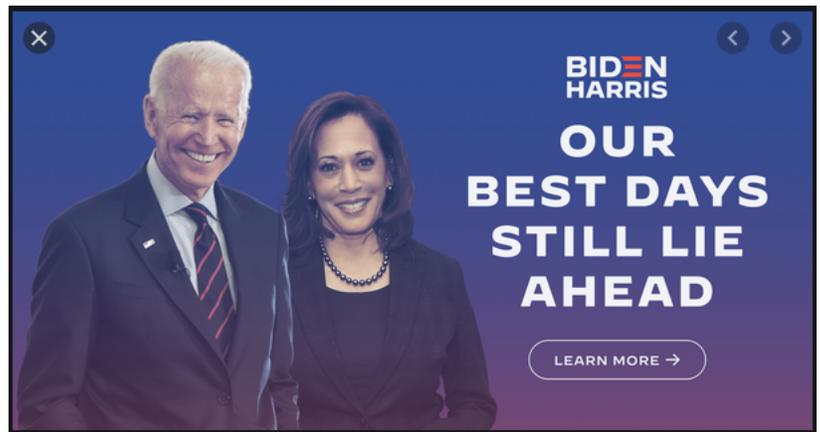


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*Thankful for a new administration that supports science, education and equal opportunities for all!*

In an emotional speech, President-elect Joe Biden urged Americans to see it as their patriotic duty to fight the pandemic together by taking the proper precautions. *“We need to remember we’re at war with the virus, not with one another, not with each other.”*

Along with educators across America, we cheer the president elect’s comments in reference to his wife: *“She has dedicated her life to education, but teaching isn’t just what she does. It’s who she is. For American educators, this is a great day for you all. You’re going to have one of your own in the White House.”*



And as scientists, we applaud his great respect for science: *“To marshal the forces of science and the forces of hope in the great battles of our time. The battle to control the virus, the battle to build prosperity, the battle to secure your family’s health care, the battle to achieve racial justice and root out systemic racism in this country. And the battle to save our planet by getting climate under control.”*

And as an immigrant and a woman of color, I am thankful for big dreams and opportunities for all: *“Dream with ambition, lead with conviction, and see yourself in a way that others might not see you, simply because they’ve never seen it before. And we will applaud you every step of the way.”*  
– Kamala Harris

*“We must make the promises of the country real for everybody, no matter their race, their ethnicity, their faith, their identity or their disability. I’ve always believed we can define America in one word: possibilities. That in America, everyone should be given an opportunity to go as far as their dreams and God-given ability will take them.”*  
– Joe Biden

### **Faculty Recognition & Activities:**

**Afua Nyarko** was a panelist at the College of Science [virtual town hall](#) listening session, on Oct 8<sup>th</sup>, intended to give the community an opportunity to center the experiences of Black science students in the College.

**Maria Franco** served on a panel of exemplary mentors at the faculty professional development session, *Engaging Undergraduates in Research*. Forty-two faculty mentors from colleges and units across OSU attended this virtual event, which was hosted by the [Office of URSA](#), [LSAMP](#), and the [College of Agricultural Sciences](#). This panel helps other faculty mentors understand how to better support their undergraduate researchers both personally and professionally.

#### **Dr. Afua Nyarko**

Dr. Afua Nyarko is an assistant professor in Biochemistry and Biophysics OSU’s College of Science. Dr. Nyarko studied biochemistry at Kwame Nkrumah University of Science and Technology in Kumasi, Ghana, and earned her PhD from Ohio University in Athens, Ohio. After completing a postdoctoral position at University of York, England, Dr. Nyarko was a postdoctoral associate and senior researcher in Biochemistry and Biophysics at OSU, before joining the department as an assistant professor in 2015. Her research focuses on using structural biology to better understand the dynamics between tumor suppressors and cancer-promoting proteins.



Closed Caption is available

Congratulations to **Maria Franco** for being elected to the Council for The Society for Redox Biology and Medicine!

### **New Grants:**

**Victor Hsu** is a collaborator on a newly funded grant by Christopher Beaudry (lead PI) for \$1.25 M over 5 years to work on “Cascade Reactions for Biologically Active Natural Products” 1R01GM140183-01 with a starting date of Sep 20, 2020.

**Elisar Barbar** with OHSU/PSU/UO collaborators, received an impact score of 22 (6 percentile) on an NIH multi-PI R01 proposal for \$2,254,892.00 (\$1.5 M Barbar’s share), to carry out “Multiscale Characterization of a Unique Class of Duplex, Multivalent IDP Systems”.

### **Submitted Proposals:**

**Ryan Mehl** submitted a proposal to the NIH, “Defining roles of nitro Tyrosine in disease via genetic code expansion,” on October 14<sup>th</sup>, 2020.

**Maria Franco** submitted a supplement to the proposal, “Nitrated Proteins as Novel Targets in Neurofibromatosis Type 2,” on October 14<sup>th</sup>, 2020.

**Afua Nyarko** submitted a proposal, “Reprogramming cellular WW domains proteins to fight chronic Hepatitis B infection,” on October 9<sup>th</sup>, 2020.

### **Serving on panels:**

I reviewed and chaired an NIH panel on Nov 19-20, Fellowships: Biochemistry and Biophysics of Biological Macromolecules. **Michael Freitag** and I both were reviewers on NSF panels.

### **Publications**

#### *From the **Hagen** group:*

Bobbe G, Michels A.J, Zhang W, Purnell J.Q, Woffendin C, Pereira C, Vita J.A, Thomas N.O, Traber M.G, Frei B, and **Hagen T.M.** (2020). [\*\*A Randomized Controlled Trial of Long-Term \(R\)-  \$\alpha\$ -Lipoic Acid Supplementation Promotes Weight Loss in Overweight or Obese Adults without Altering Baseline Elevated Plasma Triglyceride Concentrations.\*\*](#) *J Nutr*: Sep 1;150(9):2336-2345. doi:10.1093/jn/nxaa203.

#### *From the **Mehl** group:*

Yang B, Kwon K, Jana S, Kim S, Avila-Crump S, Tae G, **Mehl R.A.**, and Kwon I. (2020). [\*\*Temporal Control of Efficient \*In Vivo\* Bioconjugation Using a Genetically Encoded Tetrazine-Mediated Inverse-Electron-Demand Diels-Alder Reaction.\*\*](#) *Bioconjug Chem*. Oct 21;31(10):2456-2464. doi: 10.1021/acs.bioconjchem.0c00497. Epub 2020 Oct 9.

### **Graduate students success/activities:**

**Rachel Franklin** was appointed to serve on two advisory boards in different departments on campus. She will serve on the Family Resource Center advisory board (FRCAB) and the CoS Dean's Advisory Council (DAC) for the 2020-2021 year.

**Heather Masson-Forsythe** ([@heycurllytop](#)) was recently featured in a [blog post](#) by Twist Bioscience, a public company based in San Francisco that manufactures synthetic DNA for clients in the biotechnology industry. The article discusses the difference between STEM & STEAM, and how young scientists are utilizing the arts to push away inequities in the science field.

### **New faces in BB:**

**Zhen Yu** - *Sr. Faculty Research Assistant*



A lab manager in the Barbar Lab, Dr. Yu earned her Ph.D. in Toxicology at OSU. She has worked in areas of Cancer Chemoprevention, Gene Therapy, Immunotoxicology and Aging in Department of Environmental and Molecular Toxicology, Nutrition, Pharmaceutical Science, Biochemistry and Biophysics and Linus Pauling Institute previously. Her current research focuses on protein structure, specifically proteins related to SARS-CoV2. Yu Zhen is also in charge of maintaining shared equipment in ALS.

**Felisha Imholt** - *1<sup>st</sup> year graduate student*

Felisha Imholt graduated summa cum laude from Concordia University, Portland, OR, with a Bachelor of Arts in chemistry in 2016. Shortly after graduation, she joined Ken Muneoka's lab at Texas A&M University where she used micro-computed tomography and histology to study digit regeneration in mammals. She presented her research at the Orthopaedic Research Society Annual Meeting in 2018 and currently has publications in Atmospheric Chemistry and Physics and Wound Repair and Regeneration.



**Monica M. Vidal-Franco** - *1<sup>st</sup> year graduate student*



Monica Maria Vidal-Franco is from the beautiful island of Puerto Rico. She enjoys the outdoors, salsa dancing and war documentaries. She states that her love for teaching is equivalent to picking up leaves from the ground. She has a B.S. in Natural Sciences from the University of Puerto Rico in Cayey. Her research interests include aging metabolism, oxidative stress, and proteomics.

**Jun Yang** - *1<sup>st</sup> year graduate student*

Jun Yang is a first year PhD student of Biochemistry and Biophysics department in Oregon State University. He has BS and MS degree of Bioengineering from Oregon State University. He is an international student but have lived Corvallis for half a lifetime. He is interested in the research of aging and mitochondria, and also interested in bioinformatics.



**Sanjay Ramprasad** - *1<sup>st</sup> year graduate student*

Sanjay Ramprasad is a first-year PhD student in the Department of Biochemistry and Biophysics. He is originally from Minneapolis, Minnesota, and moved to Portland, Oregon to complete his bachelor's in Chemistry with a focus in Biochemistry at Portland State University. His undergraduate research focused on the kinetics of catalytic RNA network evolution in small ribozyme recombination networks that applied methodologies from a variety of fields including graph theory, combinatorics, and game theory. As a graduate student, his research interests are in protein structure/function, enzymology, oxidative stress regulation in eukaryotic organisms and evolutionary molecular biology. In his free time, Sanjay enjoys reading, exploring nature, and rooting for the Portland Trail Blazers.



**Cat Hoang Vesley** - *1<sup>st</sup> year graduate student* and other new faces will be featured in the next newsletter.

**BB in the News:**

OSU alumni **Andres Cardenas**, who completed his Ph.D. in 2015, has received funding to spend the next five years studying the impacts of prenatal and early childhood environmental stressors on children's health and development. Now a professor at Berkeley School of Public Health, Cardenas works at the unique intersection of biomedical and environmental sciences, to determine the role that toxins play on childhood neurological development.



**Today's workspace:**

"Here is a photo of my daughter in her hiking chariot as we hit the trail in bits of sunny fall that remain," says **Lauren Dalton**, instructor in the Department of Biochemistry & Biophysics.

This was a ray of sunshine brought to us by OSU News. Thanks Lauren!

### **Upcoming events:**

**Dec 4<sup>th</sup>**, Faculty Meeting & end of Fall term. 3-5pm—Committee chairs: please prepare updates on working towards goals set for this term.

On the agenda is guest speaker: Steve Lundeberg, from University Relations and Marketing

**Dec 16<sup>th</sup>** Rotation talks – more info will follow

**Jan 22, 2021** University-wide Ignite Research Colloquium - Interdisciplinary Health Sciences

Please [RSVP](#) as soon as possible but no later than *December 11th*. You only need to RSVP if you are planning on presenting, but please plan on presenting!

I cannot end without giving a nod to all soccer fans out there, and especially those who like me were around watching the 1986 World Cup. Diego Maradona, the Argentine soccer star with otherworldly footwork, [has died at 60](#). ([Here's a clip](#) of his most celebrated goal against England in the 1986 World Cup!) he lifted the sports into an art and conquered the world of soccer, and as the New York Times wrote, *his darkness sharpened the contours of his light, but no matter how deep the darkness, it should not obscure the light he brought*.

On this note, take a well-deserved break, enjoy life, and strive to have light in the middle of darkness. Every minute counts, and come back energized on Monday! This is the first thanksgiving in my recent memory that we celebrate at home. I am looking to build our own Thanksgiving traditions - playing Pictionary is one of them!

Thankful for all of you and all our families and hoping for a bigger celebration next year.

Happy Thanksgiving,

Elisar