

What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

Dear BB Community,

In spite of COVID 19, the state of our department is strong and we have a lot to celebrate. I want to continue informing the BB community of new proposals submitted, new publications, and any other reminders worth noting that help convey that there will be life after COVID 19, and that together we will face this pandemic and come out stronger.

In spite of the increasingly frightening news, I am optimistic with the modeling data that predict the spread of coronavirus in Oregon could be handled by the hospitals over the next month — but only if nine out of 10 Oregonians stay home.



As we begin this most unusual spring term with Beaver spirit, I am encouraged and very grateful that at every level of the university, from students to the President, we are all trying to find ways to deliver effective teaching, research, and outreach.

The dean has forwarded this link to a video that you may share with your students as a welcome back messaging.

<https://www.youtube.com/watch?v=gEJqpAdE7BI&feature=youtu.be>

Submitted Proposals:

Isabelle Logan submitted a 2-year \$85K “Young Investigator Award” proposal to the “Children’s Tumor Foundation” to work as a Postdoc with Maca Franco on “Nitrated proteins as novel therapeutic targets for neurofibromatosis type 2 treatment.” These Young Investigator Awards are designed to support senior grad students and postdocs seeking to become independent neurofibromatosis researchers.

Maca Franco, with Alvaro Estevez and Dave Hendrix, applied for a 5-year \$377K grant to work on the “Preclinical evaluation of Otoprotective Agents for Preservation of Residual Hearing following Cochlear Implantation.” The grant is a subcontract on an NIH proposal led by collaborators at the University of Miami Miller School of Medicine.

Afua Nyarko submitted an RERF proposal of 72K (total of 120K) for “Acquisition of a multi-angle light scattering detector.

Serving on panels:

To acknowledge the incredible work that goes into reviewing proposals, I am mentioning the faculty who served on panels these past two months:

Afua Nyarko served on an NSF panel in February, **Elisar Barbar** served and chaired an NIH study section in March. I also know **Viviana Perez** is a standing member of an NIH study section. Please let me know of your activities to include in the coming newsletter.

What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

Publications

From the **Barbar** group:

Jespersen N, Barbar E.J. (2020).

[Emerging Features of Linear Motif-Binding Hub Proteins.](#)

Trends in Biochemical Sciences Feb 20. <https://doi.org/10.1016/j.tibs.2020.01.004>

Reardon P.N*, Jara K.A*, Rolland A.D, Smith D.A, Hoang H.T.M, Prell J.S, and Barbar E.J. (2020)

[The dynein light chain 8 \(LC8\) binds "in-register" to multivalent intrinsically disordered partners.](#)

J Biol Chem. Mar 5. pii: jbc.RA119.011653. doi: 10.1074/jbc.RA119.011653. [Epub ahead of print] *Equal contribution

From the **Beckman** group:

Williams J.P, Morrison L.J, Brown J.M, Beckman J.S, Voinov V.G, and Lermyte F. (2020)

[Top-Down Characterization of Denatured Proteins and Native Protein Complexes Using Electron Capture Dissociation Implemented within a Modified Ion Mobility-Mass Spectrometer.](#)

Anal Chem Feb 11. doi: 10.1021/acs.analchem.9b04763. [Epub ahead of print]

From the **Hendrix** group:

Kashyap A, Rhodes A, Kronmiller B, Berger J, Champagne A, Davis E.W, Finnegan M.V, Geniza M, Hendrix D.A, Löhr C.V, Petro V.M, Sharpton T.J, Wells J, Epps C.W, Jaiswal P, Tyler B.M, and Ramsey S.A. (2020)

[Pan-tissue transcriptome analysis of long noncoding RNAs in the American beaver *Castor canadensis*.](#)

BMC Genomics Feb 12;21(1):153. doi: 10.1186/s12864-019-6432-4.

From the **Mehl** group:

Jang HS, Gu X, Cooley RB, Porter JJ, Henson RL, Willi T, DiDonato JA, Hazen SL, Mehl RA. (2020)

[Efficient Site-Specific Prokaryotic and Eukaryotic Incorporation of Halotyrosine Amino Acids into Proteins.](#)

ACS Chemical Biology Feb 21;15(2):562-574.

From the **Merrill** group:

Breyse D.H, Boone R.M, Long C.M, Merrill M.E, Schaupp C.M, White C.C, Kavanagh T.J, Schmidt E.E, and Merrill G.F. (2020)

[Carbonyl Reductase 1 Plays a Significant Role in Converting Doxorubicin to Cardiotoxic Doxorubicinol in Mouse Liver, but the Majority of the Doxorubicinol-Forming Activity Remains Unidentified.](#)

Drug Metab Dispos Mar;48(3):187-197. doi: 10.1124/dmd.119.089326. Epub 2020 Jan 18.

What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

From the **NMR Facility**

Reardon P.N, Jara K.A, Rolland A.D, Smith D.A, Hoang H.T.M, Prell J.S, and Barbar E.J. (2020)
[The dynein light chain 8 \(LC8\) binds "in-register" to multivalent intrinsically disordered partners.](#) *J Biol Chem.* Mar 5. pii: jbc.RA119.011653. doi: 10.1074/jbc.RA119.011653.

From the **Perez** group:

Díaz-Valdivia NI, Díaz J, Contreras P, Campos A, Rojas-Celis V, Burgos-Ravanal RA, Lobos-González L, Torres VA, **Perez VI**, Frei B, Leyton L, Quest AFG. (2020)

[The non-receptor tyrosine phosphatase type 14 blocks caveolin-1-enhanced cancer cell metastasis.](#) *Oncogene.* 2020 Mar 9. doi: 10.1038/s41388-020-1242-3. [Epub ahead of print]

Undergraduate research success:

Diego Rodriguez, an undergraduate in **Afua Nyarko's** lab, received one of the 2019 Marion B. Sewer Distinguished Scholarships for Undergraduates. Here is a really nice profile of Diego in the ASBMB Today! <https://www.asbmb.org/.../honoring-undergrads-who-promote-div...>

Isabella Karabinas, an undergraduate in Alvaro Estevez's lab is a semi-finalist for a Fulbright fellowship to work with Maria Angeles Moro from the Universidad Complutense de Madrid.

Ashlyn Gallagher, was a finalist in the Oregon State University Next Great Startup

Before the apocalypse:

Remember **Pub trivia**?? The event raised much needed and certainly now appreciated money for the food bank. Here are some pictures (courtesy of Andy).



I remember our team did not know the exact name of the disease caused by coronavirus, this was about a month ago!!.

What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

The **biophysical society** annual meeting in Feb was also a fun time, I gave a talk, Shauna, Aidan and Afua presented posters. Was a fun time grad recruiting, meeting Alumni and old friends.

Graduate Student Fair with Jesse and Shauna



Aidan escaped being photographed, but he, Jesse and Shauna were our active recruiters!



The Johnson Lab current and alumni Murugesh and Sara Sara Coddling is doing exceptionally well. Her paper won the best paper of the year award!



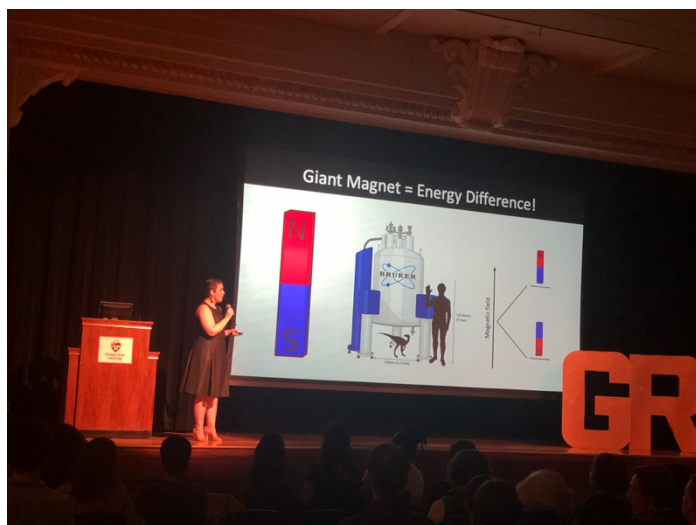
Three generations of mentors and colleagues: With Kazu Akasaka (high pressure NMR), Clare Woodward (Hydrogen exchange Biophysics), Sarah Bondos (IDPs) and Jie Liang (computational tools).

What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

Grad Inspire

MC'd by none other than our **Heather Forsythe** and the star of the show was of course **Shauna Otto**, not only for her moving story of struggle and perseverance but also for beautifully explaining the importance of basic science and giving a shout out to NMR, Biochemistry and Biophysics and protein structure and dynamics all to a packed ballroom of audience from across campus. Lovely pictures of NMR magnet, spectrum, and she even explained pulse sequences!



What's New with BB

(Feb 8th, 2020 through March 30th, 2020)

Finally, I want to acknowledge the incredible **flash talks** given by our grad students at the grad recruitment reception, while socially distancing, a day before the campus moved to remote operations. Every time I hear our students dynamic presentations I am amazed by their talent, energy, creativity and passion, and reminded of how lucky we are to have them in our department.

I did not take pictures but I clipped this one below from Heather's twitter as a reminder of how the event ended!



I hope this newsletter serves as a diversion in these tumultuous times, and a reminder to continue preparing for life when all this will be over. I am sure I have forgotten many important events, please send me your news to include in the next issue.

BB faculty have generously donated about 30,000 gloves and 3000 face masks, and are actively looking for ways to partner with Samaritan in performing diagnostic testing. In addition, several labs are starting to think of research focused on fighting COVID-19. As these efforts launch and find success, look for news coming your way of how OSU is helping to defeat the epidemic.

Wishing you a great start to the term. Thanks for reading this far! I will continue with my daily briefing, and will catch up again in two months.

Till then

Elisar