

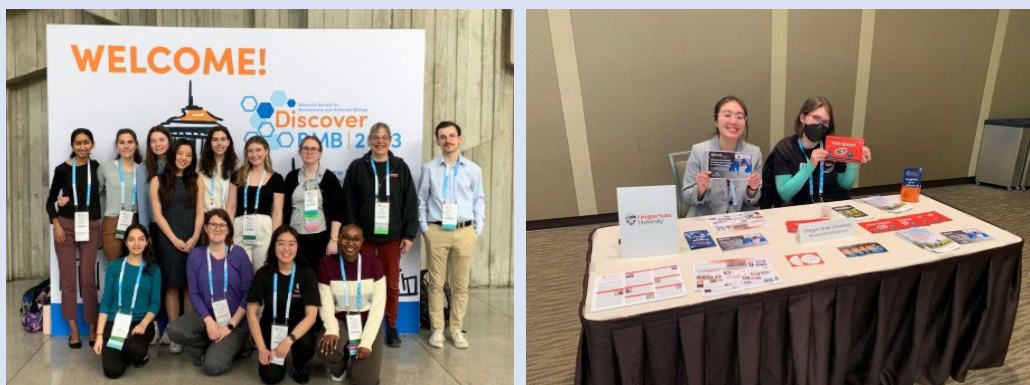
What's New with BB  
(January 1<sup>st</sup>, 2023 – March 31<sup>st</sup>, 2023)

Dear BB Community,

I hope you all had a good relaxing spring break and now are ready and excited to get back to the daily grind. We had a very productive Winter term, and I am proud of all that we were able to accomplish. We were well represented at the Biophysical Society meeting in San Diego, with posters and a grad recruiting table, we were well represented at the American Society of Biochemistry and Molecular Biology, with a record number of undergraduate students presenting posters, and also a grad recruiting table. Our local BPS chapter flash talks and posters competition during Biophysics week was a great success. With help from the College of Science we revamped and launched our department website. We had several faculty receive awards at the College of Science awards night. We also will be planning retirement celebrations for Andy Karplus, who will be teaching his last class this Spring, and Tory Hagen who gave his last lecture in Winter. We are excited to welcome Joe to give a career highlights talk in April.



### ASBMB Conference 2023



Below I list some of our activities and successes this past term compiled by help from Kimberly.

## **Funded Grants:**

**David Hendrix** is the lead PI of the proposal titled *Collaborative Research: Ideas Lab: Discovery of Novel Functional RNA Classes by Computational Integration of Massively-Parallel RBP Binding and Structure Data* that has been granted 5-year new NSF funding starting 3/15/2023. Amount to Dave's lab is \$1,042,995.

**Colin Johnson** received funding from the Bridge Funding Committee at OSU to fund **Patricia Khuu** and **Kathy Kwok** from the **Johnson Lab** for a period of 6 months in 2023 for a total of \$51,705.

**Alysia Mortimer's** proposal entitled "Why is a fly a good model to study my grandmother's tremors?" was selected by the College of Science for an award of \$10,000 under the Disease Mechanisms and Prevention Fund Award.

**David Hendrix, Colin Johnson, Patrick Reardon,** and Claudia Maier's proposal entitled "Computational Discovery, Functional Characterization, and Structure Determination of microproteins (miPs)" was selected by the College of Science for an award of \$10,000 under the SciRIS Stage 1 Award Program.

**Juan Vanegas** was awarded a full allocation to use the Anton 2 specialized supercomputer for our project on the mechanical and chemical activation of the angiotensin II type 1 receptor.

**Elisar Barbar** received \$3000 from the College of Science Equity and Gender leadership fund to organize workshops that promote the careers of mid career women faculty.

## **Grant Proposals Submitted:**

**Alysia Mortimer** submitted to NIH a proposal titled "Neuronal Mechanisms of Copper Transport and Toxicity".

**Alysia Mortimer** submitted to NSF a proposal titled RCN-UBE: Connecting Curriculum: A Fly-CURE Network

**Elisar Barbar** submitted a proposal to NIH titled "Multiscale characterization of a unique class of duplex, multivalent IDP systems-- Administrative Supplement to Support Undergraduate Summer Research Experiences".

**Juan Vanegas** submitted an NIH R01 grant titled "A Comprehensive Approach to Bacterial Osmotolerance" in collaboration with Sergei Sukharev at the University of Maryland, College Park.

**Patrick Reardon** and co-PI **Elisar Barbar** submitted a proposal to NSF titled "MRI: Acquisition of Helium Recovery Equipment: An integrated system for helium capture and recovery for the Oregon State University NMR facility"

**Juan Vanegas** submitted a proposal titled “CAREER: Cellular mechanics at the nanoscale: Lipid membrane elasticity and force transduction in mechanosensitive proteins”

**Colin Johnson** submitted a proposal with Joe Baio to Muscular Dystrophy Association titled Identifying the molecular basis of certain dysferlinopathies.

**Ryan Mehl** submitted to NIH a GCE Equipment supplement

### **Professional Service:**

**Juan Vanegas** served as an NSF panelist for the Chemical Theory, Models, and Computational Methods (CTMC) program on Dec. 12th and 13th, 2022.

### **Publications:**

From the *Barbar* Group

Jara KA, **Barbar EJ**. NMR Analysis of the Interactions and Conformational Plasticity of Dynein Intermediate Chain. Methods Mol Biol. 2023;2623:241-256. doi: 10.1007/978-1-0716-2958-1\_15 PMID: 36602690

Walker DR, Jara KA, Rolland AD, Brooks C, Hare W, Swansiger AK, Reardon PN, Prell JS, **Barbar EJ**. Linker Length Drives Heterogeneity of Multivalent Complexes of Hub Protein LC8 and Transcription Factor ASCIZ. Biomolecules. 2023 Feb 21;13(3):404. doi: 10.3390/biom13030404.PMID: 36979339

From the *Cooley/Mehl* Group

Galles GD, Infield Dt5, Clark CJ, Hemshorn ML, Manikandan S, Fazan F, Rasouli A, Tajkhorshorshid E, Galpin JD, **Cooley RB, Mehl RA, Ahern CA**. Tuning phenylalanine fluorination to assess aromatic contributions to protein function and stability in cells. Nat Commun. 2023 Jan 4;14(1):59. doi: 10.1038/s41467-022-35761-w. PMID: 36599844

Zhu P, Nguyen KT, Estelle AB, Sluchanko NN, **Mehl RA, Cooley RB**. Genetic encoding of 3-nitro-tyrosine reveals the impacts of 14-3-3 nitration on client binding and dephosphorylation. Protein Sci. 2023 Mar;32(3):e4574. doi: 10.1002/pro.4574.PMID: 36691781

Buchko GW, Zhou M, Vesely CH, Tao J, Shaw WJ, **Mehl RA, Cooley RB**. High-yield recombinant bacterial expression of <sup>13</sup>C-, <sup>15</sup>N-labeled, serine-16 phosphorylated, murine amelogenin using a modified third generation genetic code expansion protocol. Protein Sci. 2023 Feb;32(2):e4560. doi: 10.1002/pro.4560.PMID: 36585836

From the **Gombart** Group

**Gombart AF**, Michels AJ, Eggerdorfer, N. There is no evidence that vitamin D supplementation drives the progression of Alzheimer's disease. *Aging Cell*. 2023 Jan;22(1): e13758.doi:10.1111/accel.13758. Epub 22 Dec 19. PMID: 36533447

From the **Hagen** Group

Stutzenberger, LR, Norcross MF, Pollard CD, **Hagen TM**, Mulligan CMS, Huang Y, Brown-Crowell CN. Biomechanical demands of exercises commonly performed by older adults in falls prevention programs. *Clin Biomech (Bristol, Avon)* 2023 Jan;101:105863. doi: 10.1016/j.clinbiomech.2022.105863. Epub 2022 Dec 15.

From the **Hendrix** Group

Lasher B, **Hendrix DA**. bpRNA-align: Improved RNA Secondary Structure Global Alignment for Comparing and Clustering RNA Structures. *RNA*. 2023 Feb 9;rna.079211.122. doi: 10.1261/rna.079211.122. Online ahead of print. PMID: 36759128

From the **Karplus/Mehl** Group

Bednar, RM, **Karplus PA, Mehl, RA**. Site-specific dual encoding and labeling of proteins via genetic code expansion. *Cell Chem Biol*. 2023 Mar 25;S2451-9456(23)00063-6. doi: 10.1016/j.chembiol.2023.03.004. Online ahead of print.

From the **Vanegas** Group

Pirhadi E, **Vanegas, J.**, Farin M, Schertzer JW, and Yong, X. Effect of Local Stress on Accurate Modeling of Bacterial Outer Membranes Using All-Atom Molecular Dynamics. *J. Chem. Theory Comput*. 19 (1), 363-372. (2023) doi: 10.1021/acs.jctc.2c01026.

From **Dalton/Van Zee**

Harjoe CC, Wilson MN, Charbonneau N, **Dalton LE, Van Zee K**, Kiser S, Kayes L. Designing the Biology Classroom & Lab to Support Blind & Visually Impaired Learners. *The American Biology Teacher* 1 January 2023; 85 (1): 4–11. doi: <https://doi.org/10.1525/abt.2023.85.1.4>

## Faculty Talks:

**Alysia Mortimer** gave a talk titled “Aggregation of Lamin Protein in Aging and Disease”, which was the selected oral presentation at the Keystone Autophagy and Neurodegeneration: Mechanisms to Therapies conference in Snowbird, Utah, held March 26<sup>th</sup>-29<sup>th</sup>.

**Ryan Mehl** gave two talks at Furman University titled, “Reprogramming the building blocks of life” and “The chemical limits of labeling proteins using genetic code expansion” on February 27<sup>th</sup> and 28<sup>th</sup>.

**Douglas Walker** gave a seminar talk at Idaho State University titled, "How did I get here?: My journey as a scientist and some cool new research!" on February 10th.

## Teaching and Learning News:

**Lauren Dalton** and **Kate Shay** worked on Gen Ed reform – LOCR groups (Learning Outcome Criteria and Rationale) to help define the new general education requirements at OSU. Kate worked in the Difference, Power, and Oppression Group and Lauren worked in the Writing group.

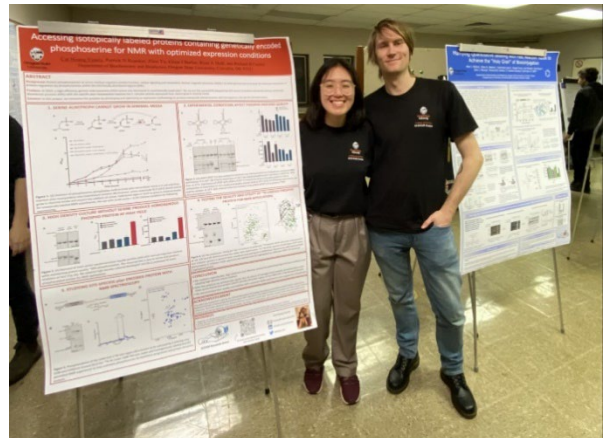
**Dr. Daniel Zuckerman** from OHSU will be teaching BB 699 Special Topics grad class in Spring Term. The title of this course is *Introductory Molecular Biophysics Theory*.

## National and International Conferences

The **Volcano Conference**, Feb 10<sup>th</sup> – 12<sup>th</sup>, Pack Forrest WA.

The following students presented research posters:

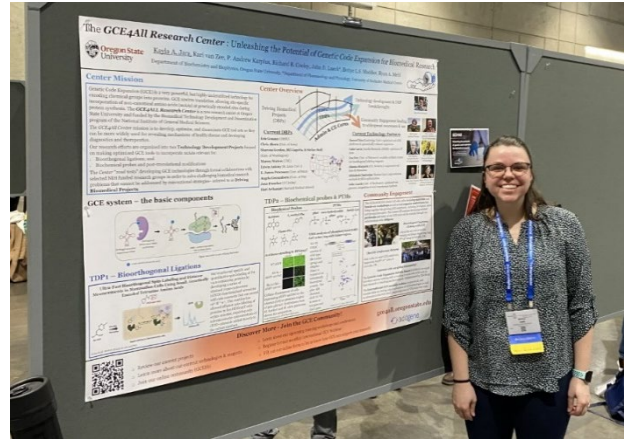
- **Cat Vesely**: *"Accessing isotopically labeled proteins containing genetically encoded phosphoserine for NMR with optimized expression conditions"*
- **Sarah McGee**: *"Analyzing the Phosphatase and Denitrase Activity of the D1/D2 Tandem Domains of Protein Tyrosine Phosphatase Receptor T."*
- **Alex Eddins**: *"Marrying Quantitative labeling with Fast Reaction Rates to Achieve the "Holy Grail of Bioconjugation"*
- **Abi Pung**: *"Creating conjugate-ready antibody fragments in E. coli"*



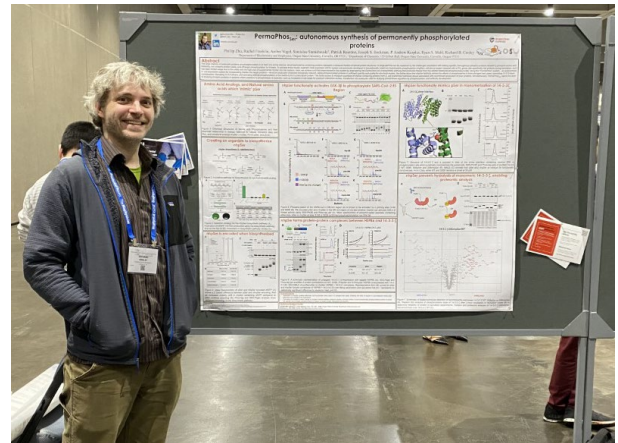


The **Biophysical Society Annual Meeting** was Feb 18<sup>th</sup> - 22<sup>nd</sup>, in San Diego, where several people from BB presented posters:

**Kayla Jara:** “*The GCE4All Research Center: Unleashing the Potential of Genetic Code Expansion for Biomedical Research*”



**Rick Cooley:** “*PermaPhos<sub>Ser</sub>: autonomous synthesis of permanently phosphorylated proteins*”

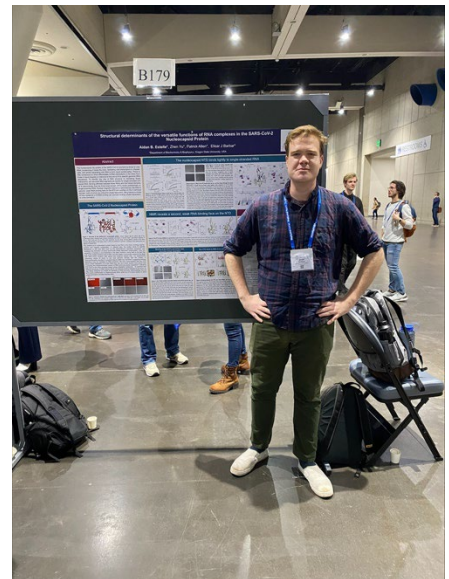


**Juan M. Vanegas** along with Bharat Poudel and Rajitha Rajeshwar T. presented a poster at the BPS annual meeting in San Diego: “Mechanical vs. agonist induced activation in the angiotensin II type 1 receptor”

**Aidan Estelle** presented a poster titled Structural determinants of the versatile functions of RNA complexes in the SARS-CoV-2 Nucleocapsid Protein



**Jesse Howe** presented a poster titled Multivalency in 53BP1-LC8 interactions suggest new binding mode for LC8.



**Aidan, Jesse and Kayla** also manned the recruiting table and presented highlights from our local BPS chapter.

## At the ASBMB

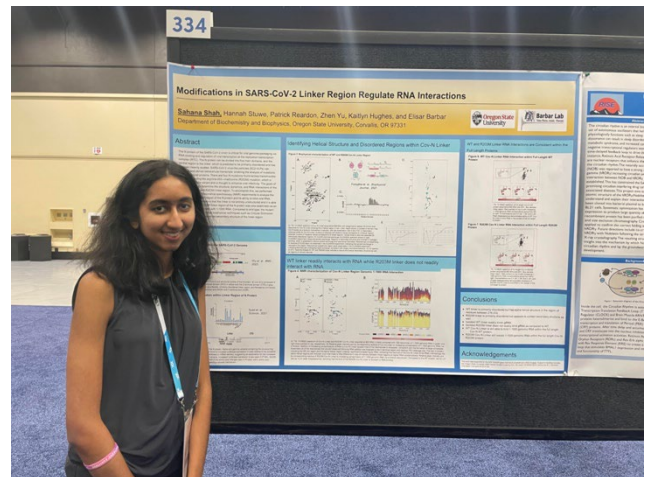
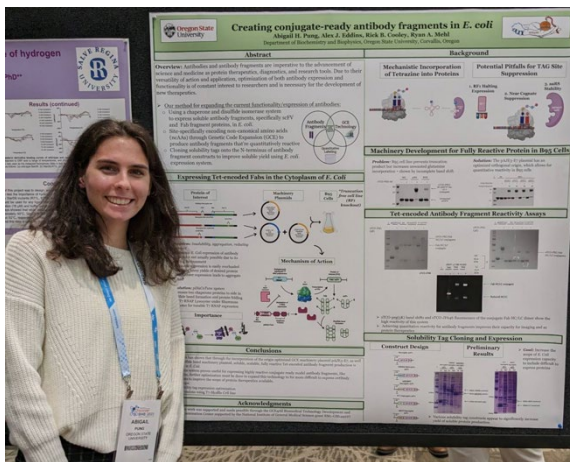
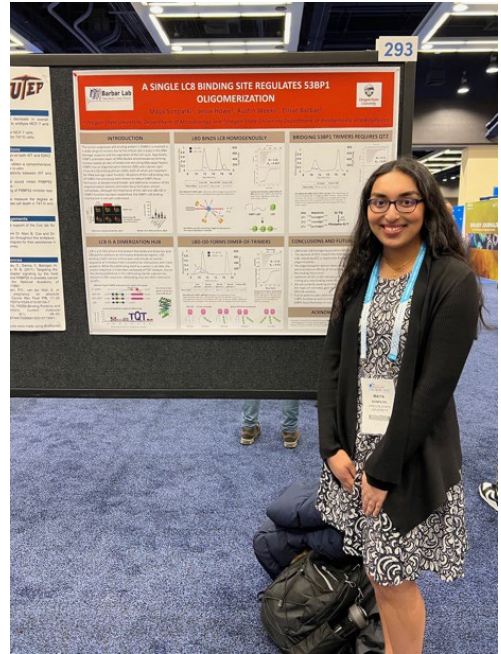
**Kari Van Zee and Lauren Dalton** took 12 undergraduate students to the ASBMB Conference in Seattle. They talked with a lot of people and had a great time!



**Maya Sonpatki** from the Barbar lab presented a poster titled: A single LC8 binding site regulates 53BP1 oligomerization.

**Sahana Shah** from the Barbar lab presented a poster titled Modifications in SARS-CoV-2 Linker Region Regulate RNA Interactions.

**Abigail Pung** (PI Ryan Mehl and Rick Colley, BB) presented a poster titled Creating conjugate ready antibody fragments in *E. coli*





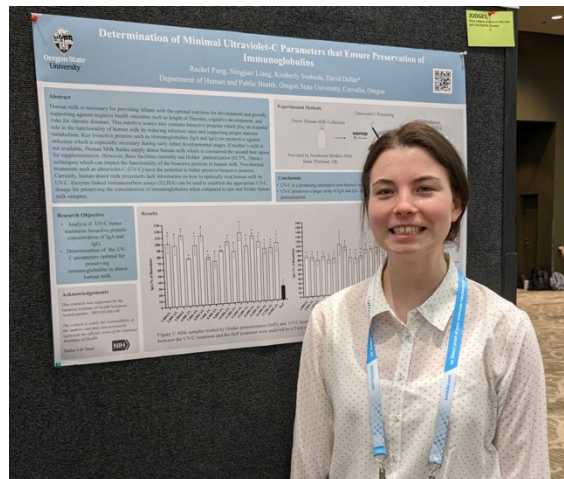
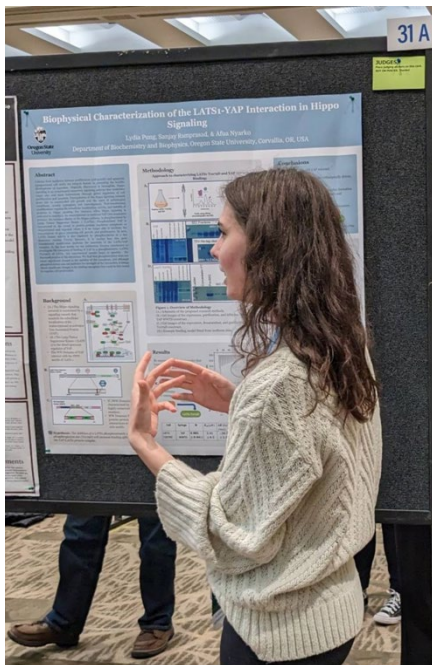
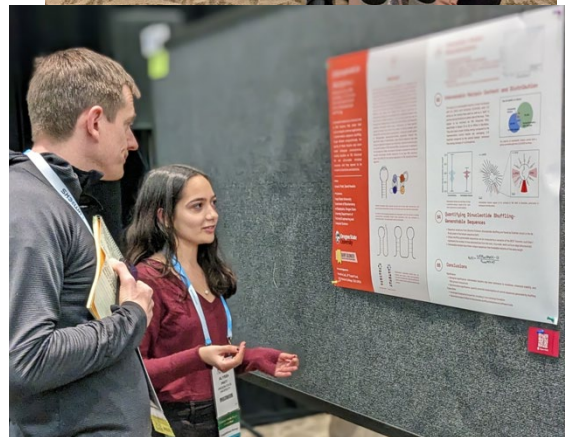
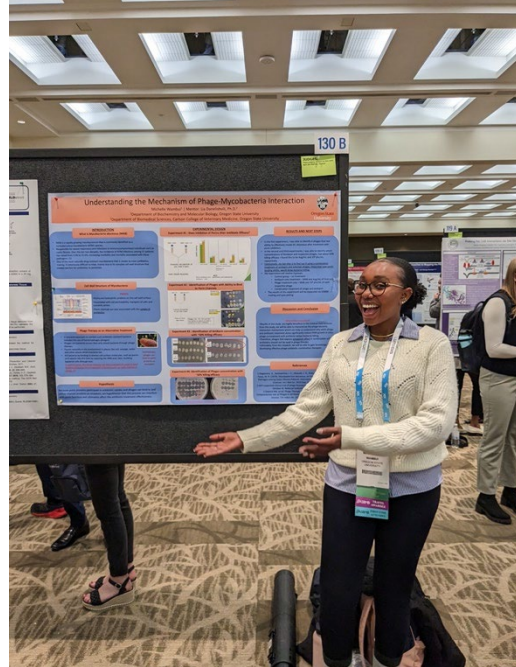
**Michele Wambui** (PI Lia Danelishvili, College of Veterinary Medicine) presented a poster titled Understanding the Mechanism of Phage-Mycobacteria Interaction

**Alyssa Pratt** (PI Dave Hendrix, BB) presented a poster titled Unbreakable Hairpins: Characterizing RNA secondary structures that are persistent after dinucleotide shuffling.

**Rachel Pung** (PI David Dallas, Department of Human and Public Health) presented a poster titled Determination of minimal Ultraviolet-C parameters that ensure preservation of immunoglobulins

**Lydia Pung** (PI Afua Nyarko, BB) presented a poster titled Biophysical Characterization of the LATS-YAP Interaction in Hippo Signalling

**Kaitlyn Kim** (PI Kathy Magnusson, College of Veterinary Medicine) presented a poster titled Early Changes in N-Methyl-D-Aspartate Receptor Subunits in the Development of the 5xFAD Alzheimer's Mouse Model.





**Lauren Dalton** presented a poster titled **Lessons Learned: Supporting Blind/Visually Impaired Students in Biochemistry**.



**Kayleana Green** from the Hokanson Lab, presented a poster titled **“Electrophysiological Properties of Immortalized Hypothalamic Kisspeptin Neurons In Vitro”**.



## Research in the News:

I am sure most of you know of or have visited e-MSion, the company that **Joe Beckman** started for innovative electron capture dissociation technology known as the ExD cell. After many years of dedicated hard work, pioneering vision, and several SBIR and STTR multimillion dollar grants, Joe and his team which includes several BB alumni have built a company whose value was recognized by the giant company Agilent, details in the link. <https://www.agilent.com/about/newsroom/presrel/2023/09mar-gp23010.html>

Congratulations to Joe and team for their innovative discoveries and persistence in seeing this through, and for bringing this great recognition to OSU and BB. The software development was key, and that I am proud to say that BB alumni had a lot to contribute to that, and to acknowledge the risk that Joe took in hiring students so early in their career and to develop them to make these important contributions.

## Recruitment News:

Recruitment Day was March 24<sup>th</sup>, and we hosted 5 graduate candidates for a full day of campus tours, faculty flash talks, and rotation talks. We have had 3 candidates accept our offer of admission thus far. Huge thank you to everyone who helped coordinate Recruitment Day – Afua, Kimberly, Rachel and Brittany for organizing, Juan and Afua for chauffeuring, Fritz and Rachel for transportation, and to Jesse for organizing the tour! Special thank you to Sanjay, Monica, Alex, Lena and Monica for going to dinner with the recruits, attending the baseball game, and then having the presence of mind to leave the game and take the recruits bowling!

The presenters at the poster session did an amazing job! Thank you to Douglas, Hannah, Nick, Jesse, Rachel, Sarah, Alex, Cat, and Jun for their hard work!

## Grad Specific News:

**Cat Vesely** was awarded an ASBMB 2023 Graduate Student Travel Award.

**Jesse Howe** was awarded a graduate Student Travel Award from the Biophysical Society

**Ally Erlendson** aka Dr. Erlendson successfully defended her PhD thesis on *Effects of Dis2 on chromatin-mediated silencing in Fusarium graminearum*

**Amanda Radke** graduated with a master's degree.

**Felisha Imholt** has graduated and earned a Master of Science with the proposal *Exploring the Potential of BMP2 in Proximal P3 Amputations in Mice*.

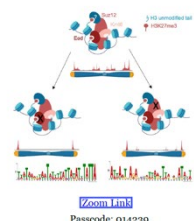
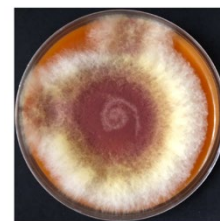
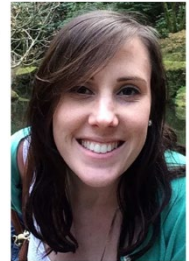
Department of Biochemistry and Biophysics

Dissertation Seminar

**Allyson Erlendson**

Effects of Dis2 on  
chromatin-mediated  
silencing in *Fusarium  
graminearum*

Tuesday, March 7th  
1:45 pm - LPSC 402



Host: Michael Freitag, (541) 360-1711  
Accommodations for disabilities may be made by contacting  
toyey.ayna@oregonstate.edu.



## Felisha Imholt, MS

### Exploring the Potential of BMP2 in Proximal P3 Amputations in Mice

Humans and mice are able to regenerate the terminal phalanx (P3) bone of the digit tip after distal amputation. However, more proximal amputations, such as proximal P3 amputations or amputations of the middle phalanx (P2), fail to regenerate and instead respond with wound healing. Recent studies exploring the induction of regeneration following proximal amputations have occurred using bone morphogenic proteins (BMPs) to stimulate growth. These proteins, part of the Transforming Growth Factor  $\beta$  (TGF $\beta$ ) super family, have been shown to enhance regeneration including the restoration of the P2 bone (BMP2), the creation of a joint (BMP9), and the formation of a skeletal element (BMP9). The focus of this proposal is to test the ability of BMP2 to induce the regeneration of the P3 bone following a proximal P3 amputation. CD -1 mice will be used as a model organism for these experiments and the ability of BMP2 to induce regenerations will be determined using micro-computed tomography (micro-CT), histological analysis, and immunohistochemistry (IHC). The results of this study will enhance our knowledge of the regeneration potential of proximal amputations and increase our understanding of the role of BMPs in regeneration.

### From the BPS Student Chapter:

A Flash Talk and Poster Presentation Competition was held on Wednesday, March 22nd. Flash talks were given by Patrick, Cat, Douglas, Yuan, and Monica, and the poster presenters were Cat, Douglas, Jesse, Sarah, Moriah, Akasit, and Maya. There were presenters from the Physics Department, and one from OHSU, in addition to those from BB. Congratulations to the winners of the competition: Cat, Douglas, Yuan, and Maya!

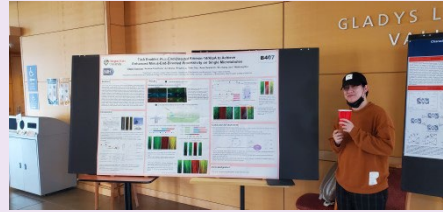
Thank you to Douglas Walker, Jesse Howe, Hannah Stuwe, Moriah Mathis, Aidan Estelle, Monica Vidal-Franco, Kayla Jara and Juan Vanegas for organizing this event!

[Flash Talk Competition & Poster Session](#)  
Oregon State University  
Oregon, United States

The event was advertised at the Biophysical Society Biophysics Week website



## BPS Student Chapter Poster Session



## Awards:

**Fritz Gombart** received the Helen P. Rumbel Professorship in Micronutrient Research from the LPI.

Several BB members received awards at the College of Science Award Ceremony on 2/21:

**Kari van Zee** received the Distinguished Service Award

**Yu Zhen** received the Outstanding Faculty Research Assistant Award

**Elisar Barbar** received the Gender Equity in Leadership Award

**Alysia Vrailas-Mortimer** received the Disease Mechanism and Prevention Award

**Colin Johnson, Patrick Reardon and Dave Hendrix** all received SciRIS I Awards

**Kenton Hokanson** received a SciRIS III Award

Congratulations to all awardees, nominators, those who submitted proposals, and thank you to those who attended the ceremony!

## **Dr. Mareike Moeller receives prestigious Marie Sklodowska-Curie Postdoctoral Fellowship**

Mareike, a postdoctoral research associate in the Freitag lab received a three-year Global Postdoctoral Fellowship to carry out chromatin-related work in the lab of Benjamin Schwessinger at Australian National University in Canberra, ACT, Australia, and the international Global Rust Reference Center near Copenhagen, Denmark. Mareike previously held a fellowship from the German equivalent of the NSF, the Deutsche Forschungsgemeinschaft, and we are happy that she will now continue her chromatin work on "rust fungi", global pathogens of cereal crops. Because rusts are obligate pathogens and have complicated life cycles, they have not received sufficient attention over the past decades. Based

on the ~1,000 life-science-related applications received and her score, Mareike's proposal was in the top 20 applications received. Many congratulations and best wishes to Mareike!!

### **Undergrads in the News:**

“The Presidential Scholarship has allowed me to fully engage in my passions at OSU through my different involvements, without having to worry about financial stress or other constraints, for which I am eternally grateful.” – *Sahana Shah, College of Science, Honors College, '24*

[Sahana Shah, College of Science, Honors College, '24, dreams of a new campus center for students with disabilities](#)



**Gretchen Fujimura**, an undergraduate student in Biochemistry and Molecular Biology and Honors College, shares the story of how she was able to travel to Japan to do research in a top-tier facility, study the Japanese language, and build a deeper connection with her family's heritage.

<https://youtu.be/xxJoOZc2LXo>



### **GCE News:**

GCE International Webinar series – Winter 2023 Speakers

# INTERNATIONAL GCE WEBINAR: WINTER 2023 SPEAKERS

JANUARY 19TH

"How to make a thermostable ribosome"



**Jamie H. D. Cate, PhD**  
University of California, Berkeley

"Methodological challenges of an expanded genetic code"



**Nediljko Budisa, PhD**  
University of Manitoba, Canada

FEBRUARY 16TH

MARCH 16TH

"Engineering Biomaterials Bearing Non-Canonical Amino Acids"




**Jin Kim Montclare, PhD**  
NYU-Tandon School of Engineering

"Expanded genetic code for live-cell fluorescent protein labeling in (neuro)biology"




**Ivana Nikic-Spiegel, PhD**  
Tübingen, Germany

"Identification of neuropeptide and toxin binding sites on a membrane-embedded receptor through crosslinking"



**Stephan Pless, PhD**  
University of Copenhagen

"Expanding the genetic code – new chemistries for biology"



**Kathrin Lang, PhD**  
ETH Zurich



Supported by:  
OSU College of Science,  
OSU Dept Biochemistry & Biophysics  
NIH GCE4All Research Center



If you missed any of our webinars, please visit our [YouTube channel](#) to watch recordings of the webinar talks! Don't miss out on our Spring speakers, [register](#) now!

GCE Workshops are back in-person! We'll be hosting an in-person, 5-day intensive lecture and laboratory course titled "*Bioorthogonal Ligations – Clicking with GCE*" on August 8-12<sup>th</sup>. Please see the flyer below and visit our [website](#) for more information!

## Genetic Code Expansion Workshop

**Aug 8<sup>th</sup> – 12<sup>th</sup>, 2023**

Apply & Register at: <https://gceworkshops.org/>  
Price Increase April 30th

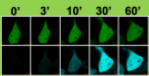
### Bioorthogonal Ligations – Clicking with GCE

Advances in Genetic Code Expansion and bioorthogonal ligations have changed the landscape of protein studies by enabling site-specific conjugation to proteins in vitro and in vivo. This 5-day intensive lecture and laboratory course will provide participants with the theoretical and practical knowledge to utilize existing and emerging GCE technology in bioorthogonal ligations.

#### Lecture Topics

- GCE overview & current status of the field
- Overview of ncAA classes & categories
- Pros & cons of different bioorthogonal ligations and labeling partners
- The good/bad/ugly of GCE based bioorthogonal ligation
- Reducing background labeling
- Technical aspects of *E. coli* systems & eukaryotic systems
- Dual bioorthogonal encoding & labeling
- Future directions of the field

#### Laboratory Component




- 5 days of hands-on laboratory experience with bioorthogonal ligations via alkene and tetrazine inverse-demand Diels-Alder chemistry
- Efficient tetrazine ncAA incorporation into proteins
- Rapid, selective reaction with sTCO reagents
- *E. coli* and mammalian host systems
- Your research gene of interest alongside optimized controls


**Instructors:**

Ryan Mehl, GCE4All Director, Oregon State University  
Rick Cooley, GCE4All Associate Director, Oregon State University  
John Lueck, GCE4All Associate Director of Tech Dev., University of Rochester Medical Center  
Riley Bednar, GCE4All Scientist, Oregon State University


**Apply today!**



**Course Fees:**  
Academic \$2250  
Industrial \$4200



GCE4All Research Center, Corvallis OR



Alumni News:

BB BS Alum **Tari Tan:**



As of January 1, 2023, Tari is the new HMS Assistant Dean for Educational Innovation and Scholarship. Most recently, Tari was the Director of Education in the HMS Department of Neurobiology where she worked with departmental faculty and administrators to develop and lead innovative training programs that promote equity, diversity, inclusion, and belonging (EDIB). Tari led the development of the Program in Neuroscience Post-Baccalaureate program (PiNBAC), and she is the Program Co-Director for the Morehouse and Harvard Partnership in Neuroscience Growth (MAHPING), a collaborative program between Harvard Graduate Program in Neuroscience & Morehouse School of Medicine B.S./M.S. Program in Neuroscience to foster neuroscience excellence at both institutions. As Assistant Dean for Educational Innovation and Scholarship, Tari will create new partnerships and programming that enrich science teaching and learning and enhance EDIB at HMS and beyond.

## Outreach

**Kayla Jara** volunteered at an OMSI “Meet a Scientist” event on March 11<sup>th</sup>.

### Fundraising trivia night



### Free access to mental health

### **Welcome to the world:**

It is my great pleasure to announce that Colin Johnson is now the proud father of a new adorable baby girl (Cidra). Congratulations Colin and Stacey and family!!



### **Past Events**

January 25th, at 9:00am via Zoom, Dr. Elisar Barbar hosted Dr. Marc Jamin, a Group Leader at the Institut de Biologie Structurale, in Grenoble, France. He gave a talk titled *Structural Insights into the Phosphoprotein and C Protein of the Non-Segmented Negative-Sense RNA Viruses and Implications for the Replication Process*.

February 22<sup>nd</sup>, in ALS 4001, Dr. Blaine Roberts presented a seminar talk titled *Revealing the Hidden Role of Metalloproteins and Isomeric Post Translational Modifications in Neurodegenerative Diseases*. This seminar was hosted by the GSA.

March 8<sup>th</sup>, in ALS 4001, Dr. Jessica Siegel, the Associate Dean of Academic and Student Affairs and an Associate Professor of Biochemistry and Biophysics gave a seminar talk titled *The Neurobiological and Behavioral Effects of Methamphetamine and Ketamine Exposure*.

March 24, 2023 - Rotation Talks 1<sup>st</sup> Year

### **Upcoming Events**

April 5: Dr. Jonathan Pruneda will present a seminar talk titled “Manipulation of Host Ubiquitin Signaling by Pathogenic Bacteria”

April 7: BB Faculty Meeting

April 19: Dr. Joe Beckman seminar: Fifty Years of Radical Thinking in Biology: and some radical thinking about BB going forward

May 3: Dr. Daniel Liefwalker seminar

May 5: BB Department Function

May 14: Dr. Ken van Holde Symposium

May 17: seminar, speaker TBA

May 31: Dr. Derek Applewhite seminar

June 2: BB Department Function

June 16: Rotation talks

June 16: End of Spring Term; BB Graduation Dessert

June 17: OSU Commencement, Reser Stadium

June 21: End of the year celebration and retirement party/symposium

Aug 8-12 GCE Workshop

Sep 21-23: Fall Retreat on the coast

Dec 13: NMR Symposium

Thank you for reading, and for contributing to the news in this issue. Have a great Spring term!

Elisar