



BMB News and Highlights

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Recognition and Shout Out

Drew Tonsager, PhD candidate in BMB has won the 2022 College of Natural Sciences Graduate Student Excellence in Teaching and/or Mentoring Award!

First Graduate Student in BMB to win this award from the College of Natural Science!!



Stasevich Lab

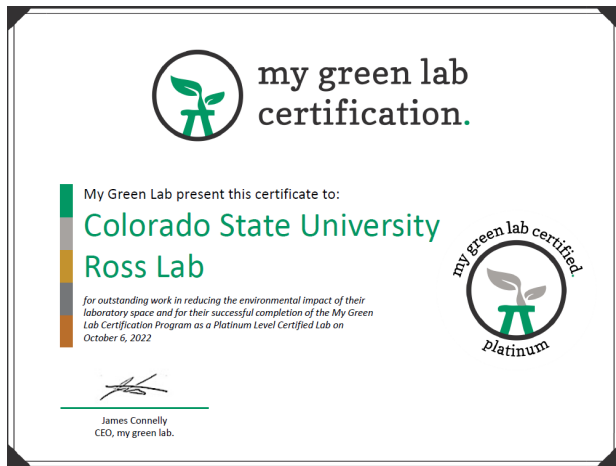
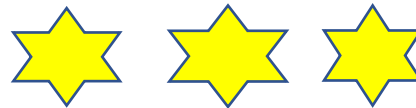
The interdisciplinary CSU 'Tag Team", which is made up of members from the Stasevich lab, as well as the labs of Dr. Chris Snow in Bioengineering and Dr. Brian Geiss in MIP, just received a 5-year 2.5M grant from the NIAID.



The Tag Team got started in 2016. Our goal is to design, develop, and apply new technologies to better detect and image proteins, both *in vivo* and *in vitro*. We received our first bit of funding back in 2017 from the CSU Catalyst for Innovative Partnerships VPR initiative (\$200,000). Since then, the team has had a steady track record of funding success: a 2019 Colorado OEDIT Advanced Industries Acceleration POC Grant (\$70,000), a 2020 R56 from the NIAID (\$540,000), and now an R01 from the NIAID (\$2,500,000). We also share space in the AZE210 lab, which Laurie helped us get!



Well Done Ross Lab!!



The Ross Lab is proud to receive a My Green Lab Platinum Certification. The Ross Lab participated in a pilot program with 11 other labs at CSU (and was 1 of 2 labs representing the College of Natural Sciences) with a goal of certification.

Recognized by the United Nations Race to Zero campaign as a key measure of progress towards a zero-carbon future, My Green Lab Certification is considered the gold standard for laboratory sustainability best practices around the world.

My Green Lab Certification is a proven, scalable program that helps organizations achieve their sustainability goals. It offers tried-and-true methods rooted in science to dramatically reduce the environmental impact of laboratories without disrupting the critical work underway. The Ross Lab is delighted to join a community of hundreds of labs that have been My Green Lab certified!

More information about this program can be found at-
www.mygreenlab.org/green-lab-certification

Robert Williams and Adrew Lamb successfully defended their dissertations



Robert Williams – Nishimura Lab



Andrew Lamb – Di Pietro Lab



Publications

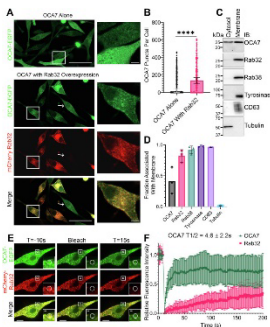
DeLuca Lab – [paper published in PNAS, October 3, 2022](#)

The DeLuca lab, in collaboration with The Nishimura's lab (here in BMB) and Patrick Paddison's lab at The Fred Hutchinson Cancer Research Center.

Hyper-active RAS/MAPK introduces cancer-specific mitotic vulnerabilities

The next generation of cancer therapeutics will ideally inhibit cellular activities that are uniquely required by cancer cells, often referred to as an “addiction” to a certain protein. Toward this goal, we show that, while the mitotic protein BubR1 is required for the spindle assembly checkpoint in all cell types, its role in stabilizing kinetochore–microtubule attachments is often dispensable. We find that, relative to nontransformed cells, tumor cells with amplified RAS/MAPK signaling exhibit an enhanced requirement for BubR1 to align chromosomes during mitosis and prevent lethal chromosome segregation errors. Altogether, this work expands our understanding of how chromosome segregation and cancer biology intersect and highlights the need to explore mitotic processes in diverse cellular states.

Di Pietro Lab



[OCA7 is a melanosome membrane protein that defines pigmentation by regulating early stages of melanosome biogenesis - Journal of Biological Chemistry - jbc.org](#)

Mutations in C10orf11 (OCA7) cause OculoCutaneous Albinism, a disorder that presents with hypopigmentation in skin, eyes and hair. The OCA7 pathophysiology is unknown and there is virtually no information on the OCA7 protein and its cellular function. Here, we discover that OCA7 localizes to the limiting membrane of melanosomes, the specialized pigment cell organelles where melanin is synthesized.

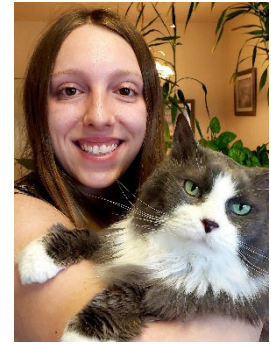
www.jbc.org



Department Happenings

❖ Office Updates

- Please welcome Maranda Hutson to the front office, she is the department Undergraduate Coordinator and Front Desk Support
- Please continue to use our two general email boxes for communication:
 - cns_bmb@mail.colostate.edu to communicate to the office for rooms scheduling, general questions and information.
 - cns-bmb_orders@Mail.Colostate.edu for ordering
- In the process of interviewing students for front office support, expect to hire two student hourlies.



❖ Warmest Wishes to Dylan and Lindsay from the Nishimura lab



❖ Congrats to Jessica Hill, husband Rasean and boys RJ and Parker, for their newest baby boy to the family!!



❖ *Figure Making Presentation a success – Thank you Gabe and Wyatt!!*



❖ Department 5-year review

- Biochemistry is preparing for the 5-year program review.

❖ CNS Strategic Plan

- CNS Strategic Plan - (see <https://www.natsci.colostate.edu/about/strategic-plan/>)
- Please participate in the survey, here is the link to the anonymous survey:

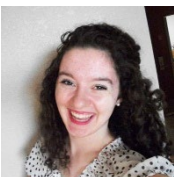
https://colostate.az1.qualtrics.com/jfe/form/SV_85ESJZHKpmJCGuG

The BMB survey will ask you to rank those sub-priorities as most important to least important to our department.

The BMB survey will also ask for ideas or action items that you want to suggest for our own strategic planning. These will be combined and we will search for common themes/ideas as we develop the BMB tactical plans.

❖ Welcome New BMBers

Markus lab



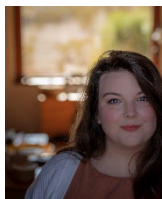
Mariana Kerwin
Research Associate II



William Ton
Research Associate I



Nishimura Lab



Kayla Stewart
Lab Manager

Graduate Student News

- ❖ November 16th - Graduate Student Showcase, 9:30 AM - 12:30 PM LSC
<https://wsnet2.colostate.edu/cwis478/GraduateStudentShowcase/>

Undergraduate News

- ❖ Biochemistry Club Student Association

President: Hunter Ogg

Vice President: Cole Shepherd

Treasurer: Christian Smith

Secretary: MaKala Herndon

Leadership Team: Jacob Leavitt, Dani Riley, Victoria Silva, Ryan Hasbrook

Thank you all for your time!!

The Club meets November 7th and the 30th, events listed below, as well as the 5th of December for a relaxed meeting where we plan to tie-dye shirts and have some therapy dogs before finals.

Visit them on Instagram - <https://www.instagram.com/biochemcsu/?hl=en>



- ❖ **Travel Opportunity –**
The BMB department will be sponsoring the travel of a few exceptional students to present their research at the ASBMB national meeting in Seattle this year. Please check your email for more information. The deadline to apply is November 18th!

- ❖ **WINNER OF T-shirt Contest**



- ❖ **November 7th -**
Join us for a tour of the New Belgium production floor with the head of their Chemistry QA to learn more about careers in fermentation. We will be meeting in the main bar area of New Belgium at 6:30 PM. Only those over 21 years old are allowed!

OR

For younger students, we will be hosting a workshop with the career center beginning at 5:00 PM in A/Z E210. Join us then to learn more

about how to get internships and prepare for life after undergraduate education!

- ❖ **November 30th –**
Join us for a research talk given by Dr. Shing Ho on his fascinating work. Dr. Ho has worked on everything from Z-DNA to determining the structure of the Holliday Junction to engineering enzymes to function without metal catalysts in his long career. The time and location will be announced.

- ❖ **Student Loan update -** The federal government has opened debt forgiveness for student loans. Eligible students can have up to \$10K (or \$20K for Pell Grant recipients) of loans taken out before June 30th, 2022. Students can access the short application and find out more information at <https://studentaid.gov/debt-relief/application>. Please take advantage of this opportunity and spread the word to other students!

- ❖ **Election day is the 8th of November this year.** Please ensure your ballot is in a box by 7PM on election night! You can find more information regarding candidates and ballot issues at <https://www.vote411.org/> or with the Colorado Blue Book.



Upcoming Events



November 8th - Professor Laureate 4:30 pm, come support Jeff Hansen

November 14th – Kevin Flynn Speaker

November 16th - Graduate Student Showcase, 9:30 AM - 12:30 PM LSC

December 12th – Holiday party Gilded Goat 6-9 pm

December 16th - Commencement Ceremony will be on Friday, December 16th at 5 p.m

January 13th - Grant Funding Workshop with Program Officers organized by CNS

March 20th - Woody Lectureship: Dr. Jennifer Lippincott-Schwartz

Summer 2023 - Art Show at the Curfman Gallery in memory of Dr. Fahrney

