

CMB Newsletter

Issue 13 | Fall | 2019

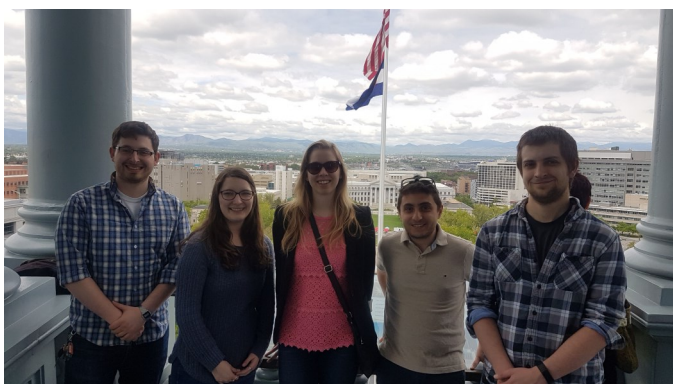
The CMB Newsletter is written and published by graduate students of the CMB program. Our mission is to create a more closely-knit CMB community by providing students, faculty, friends, family, and alumni with current information about the Cell and Molecular Biology Program at Colorado State University. This newsletter looks to emphasize accomplishments and activities of the CMB community as well as highlight future events. Please email Heather Deel (hdeel@rams.colostate.edu) or Hannah Berry (hmberry@colostate.edu) with news or if you want to become involved in future editions!



Summer Internship Experience By Nikki Huynh

My friend recently got a job at Back of the Yards Algae Sciences (BYAS), a biotech start-up company based in Chicago, and I decided to do my research on what this business entails. Their platform utilizes microalgae extracts into algae-based ingredients for agriculture, natural food colorant, and serum-based media to the growing cellular agriculture industry. After reading through the company's background and mission, I was completely intrigued and wanted to learn more about algae. I reached out to the founder of the company and emailed him asking for a summer internship with my resume. My friend also gave a good word on my behalf to enlighten the founder about my credentials and my lab experience. Within two weeks, I flew to Chicago and became a part of their crew. Overall, this internship was a great experience for me to take my own initiative and learn how to troubleshoot my mistakes in a project. My biggest tip for making this trip a success was to just have fun and have good communication with your boss and co-workers!

Colorado State Capitol Tour in Denver By Platon Selemenakis



After the end of the Spring semester CMB students visited the State Capitol as part of an initiative to explore career opportunities for graduate students. The goal of the trip was to become familiarized with the legislative process and how, as scientists, we can influence policy decisions. First, we did a historical tour of the building and then we met with Pete Theodoratos, a Graduate student in Political Sciences and employed in the Capitol, who explained in detail the whole legislative process from the introduction of a bill to the final implementation of policies. In this process, we can take action by meeting our representatives to communicate our research and go to bill hearings to testify. This was a great opportunity to understand the procedure of science policy and how to get more involved.

CMB Faculty Honored at CSU Celebrates



Lucas Argueso (ERHS) received the **Jack E. Cermak Advising Award** for Excellence in Academic Advising. Dr. Argueso is Chair of the CMB Admissions Committee and has advised many CMB students over the years both as major advisor and committee member. He was nominated for this award by his former CMB students Hailey Sedam and Nadia Sampaio.

Tim Stasevich (BMB) received the **Montfort Professorship** – a two-year award that helps CSU attract and retain talented young faculty.

George Barisas (Chemistry) received the **Interdisciplinary Scholarship Individual Award**.

Asa Ben Hur (Comp Sci) and **Anireddy Reddy** (Biology) received the **Interdisciplinary Scholarship Team Award**.

Michelle Foster (FSHN) was honored with the **Multicultural Staff and Faculty Network Distinguished Service Award**.

Additional Faculty Awards and News

Chris Snow (CBE) received the Best Teacher Award

Kelly Wrighton (SOCR) received two AWESOME awards, Young Investigator Award from the International Society for Microbial Ecology, will receive the award at the ISME 2020 conference in Cape Town, South Africa, and the Presidential Early Career Award for Scientists and Engineers (PECASE). She was recently honored with this award at the White House. Pictured right.

Tai Montgomery (Biology) is acting as Associate Director of the CMB Program while Graham Peers is on sabbatical. Questions about Prelims can be directed to him.



CMB Grant Highlights



Student Grants

Hannah Berry, USDA NIFA AFRI Predoctoral Fellowship will support her project titled "Elucidating Hormonal Crosstalk During Tomato Development and Disease." (~\$120,000 over two years).

Lisa Schlein, Morris Animal Foundation Fellowship providing funding for post-doc stipend support for 3 years

Faculty Grants

Congrats to all faculty who received grants this year! Below are just a few of the grants funded this year.

Carol Wilusz (MIP) NIH Predoctoral Training in Quantitative Cell and Molecular Biology

Paul Laybourn (BMB) Scholarships and Learning Community to Build Academic Momentum in STEM Students who Transfer from a Community College to a Four Year University, NSF

John Belisle (MIP) Host Metabolic Biosignatures for the Diagnosis of Lyme Disease, NIH-NIAID

Mercedes Gonzalez-Juarrero (MIP) Aerosol Spectinamide-1599 Therapy Against Tuberculosis, NIH-NIAID

CMB awarded 5 year, \$1.1 million T32

Training Grant from NIH-NIGMS



The Quantitative Cell & Molecular Biology (qCMB) T32 aims to support CMB students who wish to hone their computational/quantitative skills as well as providing training in rigor & reproducibility, and facilitating career planning. The award will support four fellows this year, and six fellows each year thereafter. Graduate students from any program can participate in the qCMB training activities at any time during their degree, but only CMB PhD students are eligible for support, generally during their 2nd and 3rd years. Fellows must also be conducting research that requires quantitative training in the laboratory of one of ~40 T32 preceptors.

As a direct result of securing the T32 the CMB program was able to recruit an additional GTA this fall (supported by the College of Natural Sciences) and all six rotating 1st year students will receive a \$5,000 supplement to their stipend this year (provided by College of Veterinary Medicine & Biological Sciences). We anticipate that this additional investment by CNS and CVMBS, combined with the prestige and visibility that comes with securing a T32 award, will enable us to recruit outstanding students to CMB over the next 5 years.

The four CMB students selected for support this year are:

Alissa Williams (Sloan Lab - Biology)
Sean Merriman (Argueso Lab - ERHS)

Kristin Scott (Santangelo Lab - BMB)
Kailee Reed (Montgomery Lab - Biology)

Importantly, qCMB will build upon a solid foundation created by the NSF-supported GAUSSI Program over the last four years. This year, qCMB will be run in parallel with GAUSSI and qCMB/GAUSSI meetings will be held biweekly on Mondays at 1pm starting Aug 26 in LSC324. Please contact [Kate Sherrill](mailto:kate.sherrill@colostate.edu) if you would like to join the qCMB/GAUSSI mailing list. For more information visit <https://cmb.dev.colostate.edu/qcmb/>.

Graduate Student Awards!

CMB students continue to earn grants and awards through CSU and other funding agencies for their hard work and commitment to science! Congratulations to everyone who has received an award since the last newsletter!

Hannah Berry - Selected as a 2019-20 CSU SoGES Sustainability Leadership Fellow (<https://sustainability.colostate.edu/blog/people/berry-hannah/>)

Heather Deel - Selected as a 2019-20 Vice President for Research Graduate Student Fellow

Jared Luxton - Demo Day winner for Innovation in Veterinary Medicine and Biomedical Sciences

Sam Ogden - MacPherson Graduate Scholarship (\$10,000 for 2019-20)

CMB Travel Awards

The next deadline is September 1st. Find more information at: <https://forms.gle/ZhbmWFATHRZsq7yx6>

March Recipients:

Neha Ahuja - Annual Society for Developmental Biology, Boston, MA

Hannah Berry - International Plant Growth Substances Association, Paris, France

Kailee Reed - International C. elegans Conference, Los Angeles, CA

Noelia Altina - 2019 Prion, Edmonton, AL

CMB Students Traveled to Conferences around the World to Share their Research!

Spring 2019 CMB Travel Award Recipients



Heather Deel - American Academy of Forensic Sciences, Baltimore, MD

"Last February, I attended the American Academy of Forensic Sciences conference in Baltimore, MD. At this incredibly large conference with attendees ranging from medical examiners to graduate students, I had the opportunity to give two talks. The first presentation, entitled 'Estimating the postmortem interval for advanced decay to skeletoniza-

tion' was given at a working group session aiming to characterize the knowledge gaps and hurdles for estimating the postmortem interval. This was a priceless experience, as I was able to meet some of the most important people in the criminal justice field who will be instrumental with our future work. I additionally gave one other oral presentation entitled 'Estimating the postmortem interval using microbial succession in human cadaver rib bones.' One of my favorite parts of the conference was going out for a delicious Ethiopian dinner with many of our collaborators from across the country, during which we bounced around project ideas. Overall, it was a wonderful experience getting to learn about all of the interesting things going on in forensic science."

Zeyad Arhouma - American Chemical Society, Orlando, FL

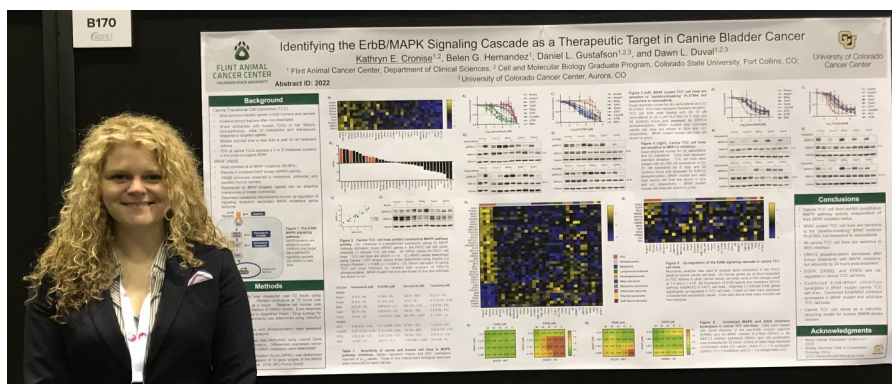
"I received the CMB travel award in March for attending the American Chemistry Society 2019 meeting held in Orlando, Florida. ACS is a scientific society of chemistry professionals that includes students, educators, and industrial chemists, so attending ACS offers the opportunity to discover and share knowledge through posters, presentations, and training workshops. It was a good opportunity to present a poster on my current work (the inhibitory activity of several vanadium complexes on Mycobacterial growth) and share ideas with thousands of chemical experts from around the world at the ACS meeting and I really enjoyed the discussions and feedback I got on my poster. Attending the ACS meeting was a good chance to network with other colleagues working on similar projects. I was lucky to discuss the current protocols and technologies with service experts and that was very worthwhile. Overall, it was an amazing experience to be in the ACS meeting and I am looking forward to attending more conferences again in the future. Also, since it was my first visit to Florida, I visited Disneyland for the first time in my life and it was a great day like the weather on this day. Finally, I want to thank my supervisor Dr. Debbie Crans for giving me the opportunity to attend this conference as well as for her support."



More CMB Student Travel

Alissa Williams - Plastid Biotechnology Gordon Conference, Ventura, CA

"I attended the Chloroplast Biotechnology Gordon Research Conference (GRC) this past January in Ventura, CA. My only previous conference experience was at a large evolution meeting with ~2000 attendees; contrastingly, this conference had just over 100 attendees, all of whom work on chloroplasts. It was an awesome experience to be surrounded by people who know a lot about my study system. Usually when I give a presentation, I have to introduce the topic of chloroplasts, and then my particular protein complex of interest, but at this conference, all I had to say was that I work on Clp and everyone knew what I was talking about. Each GRC makes a concerted effort to have experts attend. Thus, I was able to meet high profile scientists in my field, including the professor who was the handling editor of my recent publication. Before each GRC, there is also a Gordon Research Seminar (GRS), which is a specific conference for early career scientists (graduate students and postdocs). I also attended the GRS, which allowed me to get to know other early career scientists before the main conference began. Overall, this conference was a great experience."



Katie Cronise - American Society for Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting at Experimental Biology, Orlando, FL

"I was incredibly fortunate to be able to attend the ASPET Annual Meeting at Experimental Biology this past spring in Orlando, FL. This is a multidisciplinary conference featuring research in pharmacology, molecular biology, biochem-

istry, pathology, and anatomy. I presented a poster about my research titled "Identifying the ErbB/MAPK signaling cascade as a therapeutic target in canine bladder cancer". It was a great opportunity to present my work to other scientists and make connections outside of the cancer biology field. I attended the conference with both of my P.I.'s and two other graduate students which made for some fun bonding time, including a day at Universal Studios (and Harry Potter World!!!!!!)."

Summer 2019 CMB Travel Award Recipients

Neha Ahuja - Annual Society for Developmental Biology, Boston, MA

"Paige Ostwald and I attended the Annual Society for Developmental Biology (SDB) meeting held in Boston. At this meeting, we learned about the latest research in the field of developmental biology – everything to the epigenetic changes involved in neuronal cell differentiation to how butterfly wing scales are made. We also met with Martin Chalfie, a Nobel laureate who discovered GFP, and Monte Westerfield, who literally wrote the book on zebrafish biology. We also went to the Boston Tea Party Museum, where we threw some tea into the harbor to commemorate the one of the key events leading to the Revolutionary War. I am very grateful for this opportunity!"





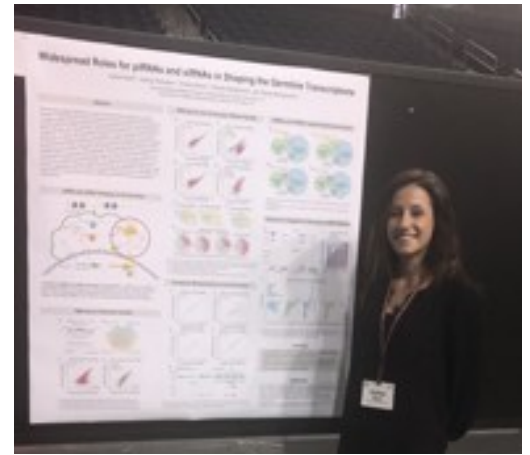
More CMB Student Travel

Hannah Berry - International Plant Growth Substances Association, Paris, France

"I attended the International Plant Growth Substances Association Conference this summer in Paris, France. This triennial conference focuses on plant hormones and other factors that influence plant development and growth. I presented a poster titled "When Development Meets Stress: Hormonal Regulation of Plant Development during Immunity Activation." This was my first conference and it was a wonderful experience meeting and talking with scientists in the plant development field. Paris is a beautiful city and I enjoyed spending time outside of the conference with my cousin who lives in the city and my parents who came with me."

Kailee Reed - International C. elegans Conference, Los Angeles, CA

"As a recipient of the CMB travel award, I was fortunate enough to attend and present my recent project at the International C. elegans Conference in Los Angeles, CA this summer. This was my first international worm conference and it was definitely one for the books! It was a very large conference, but the amount of networking and amount of people I was able to interact with was the best part of the conference. Worm biologists that have pioneered the 'worm industry', like Craig Mello and Andy Fire, were just a few of the great biologists I was able to meet. Since there are only a handful of worm labs on campus, it was an encouraging experience learning more about the worm!"



Noelia Altina - Prion 2019, Edmonton, Alberta, Canada

"Thanks to the support of CMB Travel Award, I attended to my first conference in the prion field: "2019 PRION", which was hosted at the Convention Center in Edmonton, AL, Canada. This meeting is the world's largest research congress on prion and protein misfolding diseases. It was a tremendous and valuable learning experience. The conference covered different aspects of research on prions and ranged from neurodegenerative diseases caused by prions to prion structure studies. Experts, leading scientists and participants from 25 countries congregated to present their research. The topics spanned from animal prion disease to prion-like neurodegenerative disease of humans, and from atomic level reso-



lution of molecules to neuronal cell biology. The exchanged knowledge will help to establish the direction of prion and protein misfolding research and its application in the whole world. It was a great opportunity to meet and share with highly respected researchers, students, postdoctoral fellows, and clinicians from the neurological and prion fields. I learned about the diversity of the prion field, on what can be done collaboratively working towards discoveries, diagnosis, and treatments for these fatal neurological diseases affecting animals, including humans. Not only I was able to meet with current collaborators and Nobel laureates, I also forged new connections with people around the world! Overall, this was a fantastic experience and I look forward to attend this event again in the future. Thanks to Dr. Wilusz and to my advisor Dr. Telling!"

Congrats CMB Graduates!

Spring 2019



Rasha Alnefaie, Ph.D., Garrity Lab:

Characterization of Zebrafish Models of Filamin C Related Cardiomyopathy



Nadya Aswish, Ph.D., Roess Lab:

Increased Expression Of Insulin-Like Growth Factor Receptor In Older Mares May Reduce Overall Insulin Sensitivity Despite The Presence Of Insulin Receptor



Stephen Cohen, Ph.D., Leach Lab:

How stress affects rice: a characterization of the rice transcriptome during single and simultaneous abiotic and biotic stresses



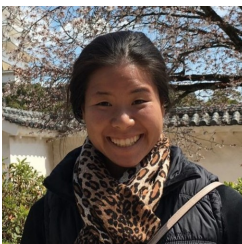
Jessie Filer, Ph.D., Geiss Lab:

Development of Electrochemical Assays and Biosensors for Detection of Zika Virus



Stephanie Morphet, Ph.D., Belisle Lab:

Investigation Of Phenolic Glycolipid As A Biomarker of Bovine Tuberculosis

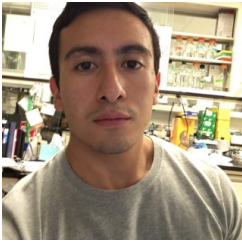


Kaila Nip, M.S., Kim Lab:

Autism-associated δ -catenin G34S mutation promotes premature degradation inducing neuronal dysfunction

Congrats CMB Graduates!

Spring 2019 Continued



Tavo Ontiveros, M.S., Wilusz Lab:

Zika Virus Noncoding sfRNA Sequesters Viral Restriction Factors Involved In RNA Splicing And Nucleic Acid Editing



Garrett Heck, M.S., Advisor: Carol Wilusz

Summer 2019



Jim Carsella, Ph.D., Crans Lab:

Selenium Speciation Determined By ICPMS: Effects On Fish Diversity, Solubility, And Bioavailability To The Bryophyte *Hygrohypnum ochraceum* In Fountain Creek, Colorado



Kristen Brown, Ph.D., Montgomery Lab:

Experimental and computational analysis of *C. elegans* small RNAs



Tom Bickett, Ph.D., Izzo Lab:

T cell independent mechanisms for protection against *Mycobacterium tuberculosis*

Nouf Alyami, Ph.D., Duval Lab:

The Impact of Insulin like Growth Factor 2 mRNA Binding Protein 1 (IGF2BP1) in Human and Canine Osteosarcoma

Congrats CMB Graduates!

Summer 2019 Continued



Cary Mundell, M.S., Wilusz Lab:

Assessing and Understanding the Generation and Function of RNA Decay Intermediates in Non-Insect Borne Flaviviruses



Nora Jean Nealon, M.S., Ryan Lab:

A Metabolomics Approach for Examining Synbiotic Protection Against Infectious Enteric Pathogens

GRExit!

Earlier this summer, the CMB Faculty were asked to consider dropping the requirement that applicants submit GRE scores in order to be considered for admission to our program. They made a rapid and clear decision in just two days, with no backstop required! The outcome was 13 NO, 61 YES and 1 abstention, thus for applications submitted to CMB this Fall, GRE scores will be optional.

The primary reason behind this change is that a large number (~50%) of [prestigious institutions](#) (including CU-Anschutz and CU-Boulder Molecular Biology programs) have already dropped the GRE requirement, which means that applying to our program would be significantly more stressful and expensive than applying to competing programs. We felt it was very likely that the size and quality of our applicant pool would decrease significantly if we did not drop the GRE requirement.

So why are other schools dropping the GRE? Some reasons include that it is not an accurate predictor of success in graduate school, and that it unfairly selects against minority and disadvantaged applicants (who cannot afford tutoring or to take the test multiple times). Among our faculty who voted NO, concerns included that the GRE allows evaluation of international students, and those from small schools where quality of training is hard to assess.

We are hope to see a large and diverse applicant pool and admitted class as a result of GRExit in 2020!

Learn more about GRExit here:

<https://graduateguide.com/an-increasing-number-of-graduate-programs-are-dropping-the-gre-requirement/graduate-schools/>
<https://www.sciencemag.org/careers/2019/05/wave-graduate-programs-drop-gre-application-requirement>



Upcoming Events and Updates

Graduate Student Showcase - Tuesday, November 12, 2019

The Graduate Student Showcase is a great way to show off your research, spend a day talking about science, and maybe win some awards! The call for proposals open until Monday, September 23, 2019, but may close sooner if capacity is reached. Additional dates and details will be announced through university email closer to the event.

Graduate Student Development Events at CSU

See the following link for a full list of professional development opportunities in the Fall 2019 semester. Events include 'NSF GRFP II: Refining Your Graduate Research Fellowship Application', 'Mentorship I: Building Successful Mentor-Mentee Relationships' and many more! <https://graduateschool.colostate.edu/wp-content/uploads/2019/08/Fall2019FallProfessionalDevFlyer.pdf>

Science on Tap and Brews and Biotech

Events to be announced throughout the semester. Keep an eye on emails for updates!

Science in Action (SIA)

Science in Action is a group dedicated to learning how to effectively communicate scientific research to the public and how policy and science are intertwined. We will be having our first general meeting Tuesday, August 27th from 7:00pm-8:00pm in LSC204 following the first GSC meeting.

Peer Mentor Club

PMC focuses on mentoring first years, but we want to include those farther along in their degree as well. We believe this will help all CMB students to better understand what to expect from their time at CSU regardless of where they want to end up. If you have any questions or a specific area of interest you would like us to cover as a PMC meeting topic, do not hesitate to ask! Look out for emails from Matt Dilsaver (Matthew.Dilsaver@colostate.edu)!

Graduate Women in Science (GWIS)

Graduate Women in Science Northern Colorado Chapter (GWIS) is a national organization with a chapter at CSU. Our goal is to offer a community of support and resources to graduate women at CSU across all STEM fields. If you are interested in being a part of this organization, get in contact with us at northerncolorado@gwis.org. We will be having an introduction meeting at the beginning of September (date and location TBA) as well as a welcome back happy hour!

CSU Graduate Student Council Events and Updates

There will be a welcome BBQ on August 23rd at City Park at 5pm. All are welcome and feel free to bring friends and family as well! Food will be provided as well as some lawn games as well, but feel free to bring something extra! Also, keep an eye out for more information on our upcoming Pizza Party at Krazy Karls later this month. More information will come to you from the GSC listserv. The first official meeting will be on Tuesday at 6pm in the LSC Senate Chamber (LSC204). Hope to see you there!

CSU Graduate School Travel Award

Travel award applications for the first quarter (conferences attended between September - November) are due September 6th at 5:00pm MST. You will find the application on the GSC website along with a frequently asked questions: <http://gsc.colostate.edu/travel-award/>

CMB 510 Poster Session for New CMB Graduate Students - Wednesday, August 28, 2019

From 10am-11am and 11am-12pm in the Morgan Library, CMB graduate students will present their research to incoming students. Come see what everyone has been up to in a relaxed setting!

Upcoming Events and Updates

Cell and Molecular Biology Student Association (CMBSA)

Current CMBSA members :

President: **Dayton Pierce**

Co-Vice Presidents: **Heather Deel** and **Jared Luxton**

Secretary: **Paige Ostwald**

Diversity Coordinator: **Platon Selemenakis**

We will be sending out an email the first week of class accepting nominations for CMBSA so be on the lookout! All are encouraged to apply. CMBSA helps to not only plan events such as the CMB poster symposium, CMB welcome picnic, CMB celebrates, but also tries to ensure that the CMB students have a voice in graduate school.

CMB Seminars Fall 2019

Seminars are held Tuesdays at 10am in Physiology 103.

- **Sep24** [Sri Iyer-Biswas](#) Purdue University
- **Oct 8** [Monika Fleschner](#) CU-Boulder
- **Oct 22** [Dan Regan](#) MIP Dept
- **Nov 19** [Connor Sandefur](#) UNC-Pembroke
- **Dec 10** [Grant Schauer](#) BMB Dept

Departmental Seminars

Cell and Molecular Biology Graduate Seminar Series:

Graduate research seminars are held Thursdays at 2pm in Anatomy and Zoology, Room E112. Please contact Dr. Carol Wilusz for more information: Carol.Wilusz@colostate.edu.

Microbiology, Immunology, and Pathology Seminar Series: For more information, visit the MIP seminar series page: <https://calendar.colostate.edu/cvmbbs/>

Molecular Cellular and Integrative Neuroscience Seminar Series: <http://mcin.colostate.edu/seminar.html>

Chemistry Department Seminar Series: <http://www.chem.colostate.edu/seminars/>

Biology Department Seminar Series: <https://www.biology.colostate.edu/seminars/>

Biomedical Engineering Seminar Series: <https://www.engr.colostate.edu/sbme/seminar-series/>

Bioagricultural Science and Pest Management: <https://bspm.agsci.colostate.edu/seminar-series/>

New CMB Graduate Students



Reed Woyda

"Minnesota, Vietnam, and Colorado are all places I have called home. Earning a B.S. in both Biotechnology and Mathematics in Minnesota, teaching English to speakers of other languages in Vietnam, and earning a M.S. in Microbiology at Colorado State University has been my educational journey. The next undertaking, obtaining a PhD, started in June 2019 with the Abdo Lab of CSU and the Agricultural Research Service of the USDA. This venture will use metagenomic and whole genome sequencing data of bacteria and litter microbiome of broiler chickens to investigate the role of mobile genetic elements in transfer of antimicrobial resistance from flock to flock and within bacterial lineages. Although these problems can be daunting, and the process of obtaining a PhD stressful, when you are surrounded by the things you love (an amazing partner, rock-climbing, snowboarding, backpacking, and of course numerous breweries) the challenge becomes just another part of the adventure."



Ikaia Lelewi

"I was born in Ventura, CA and was whisked away to Longmont, CO when I was 1. In middle school my family moved to Kailua-Kona, HI and I have spent approximately half my life in the islands and half my life in the Front Range. I received my BS in biology from the University of Hawaii and my MS in microbiology from CSU. My research interests include bacteriology with an emphasis on drug discovery and immunology. I am keen to learn computational techniques during my time in the Cell and Molecular Biology program, and to develop my skills in data processing and biological modeling. The body's response to microbial challenge fascinates me and drives my research interests as well. In my free time, I enjoy tinkering with computers, playing golf, and taking weekend jaunts to Denver or the mountains."



Valerie Lindstrom

"I grew up in Chinook, WA, a rural town in southwest Washington known for its fantastic fishing and crabbing industry. It was truly a unique place to grow up, but decided to venture out of my comfort zone for college to attend Colorado State University for a B.S. in Equine Science. I graduated from the program in May and am excited to continue my education here as a Masters student in the CMB program with Dr. Jessica Prenni in the Department of Horticulture and Landscape Architecture. We will be looking at cover crops and sustainability in agriculture by gaining a deeper understanding of how cover crops interact with the rhizosphere and local soil microbiota. In addition to school and work, I love being outdoors whether its hiking, camping, skiing, motorcycle or horse riding, or working out!"

New CMB Graduate Students

Casey Sniffin



"I grew up on Long Island, NY spending plenty of time at the beach. I graduated salutatorian of my high school class in 2015, and from there, I attended the Macaulay Honors College at the City College campus in Manhattan. I majored in Biotechnology and minored in French. During my undergraduate career, I worked in two research labs: one in structural biology, researching a novel light-sensing protein, and another in population genetics, where I studied the dynamics of population structure in a group of Mexican geckos. As a CMB student, my biggest research interest is epigenetics. I am looking forward to relocating to Colorado and starting a project focusing on gene expression and epigenomic changes in disease. In my free time, I enjoy reading, playing the violin or piano, spending time outdoors, hiking, and doing yoga."

Sam Ogden III



"I grew up in Eaton, Colorado and received my B.S. in Cellular and Molecular Biology this past spring from Adams State University in Alamosa, CO. At Adams State, I discovered my passion for microbiology, molecular biology, and science in general. Since participating in undergraduate research surrounding environmental microbiomes and spending the summer of 2018 in the Metcalf lab here at CSU, I have become increasingly fascinated by computational biology and microbiome research. Along with that, my research interests also include understanding the molecular underpinnings of plant-microbe interactions and how researchers can use that information to engineer more sustainable and disease-resistant crops. I am excited to earn my Ph.D in Cell and Molecular Biology here at CSU and to see what I will learn along the way! Outside of the lab, I enjoy hiking, reading, and spending time with my cats."

Joseph Stewart



"I am from a town called Canton in the state of Michigan. I obtained my B.S. in biology and a minor in chemistry from Eastern Michigan University. While at Eastern, I spent three years in a research lab led by Dr. Anne Casper. Our research looked specifically at common fragile sites in yeast and DNA repair types/frequency at these particular sites. My academic interests include human genetics, DNA repair, and chromosomal rearrangements. While not in the lab, I enjoy spending time in the water or on the tennis court."

Luke Hampton



Luke is a transfer student from MCIN in Dr. Tjalkens Lab.

New CMB Graduate Students



Mina Roueinfar

"I grew up in Mashhad, Iran. My fascination with biology enticed me to pursue an undergraduate degree in biology at Azad University in my home country Iran. In July 2013, I found an opportunity to work abroad as a technical executive in Malaysia. During my two years experience I learned a great deal about information technology (which sparked my desire to combine these skills with bioengineering research in the future). In August 2015, I moved to United States for graduate school and I obtained my master's degree in Bioengineering (Synthetic Biology) from Wilkes University; in this program, I have worked on five different research projects. My thesis research involved using synthetic biology to treat nephrolithiasis. Since graduation, I have been working as a research associate in the department of pharmaceutical sciences at Wilkes University. While in grad school, I have developed interest in molecular side of cancer, tissue engineering, stem cells, drug discovery & delivery. I am incredibly excited about the diverse and interdisciplinary research conducted by the Colorado State University faculty in the Ph.D. program in Cellular and Molecular Biology. It has long been my passion to use my training in biology as a vehicle to engage in this amazing field. My life goal is to become an experienced researcher and scientific leader in this field, and use my knowledge to positively affect human health around the world. I am also very excited to start my next adventure at CSU and try new things such as skiing, hiking and mountaineering. In my free times, I play setar (Persian instrument), watching movies as well as exercising."



Julianna Sun

"I was born and raised in Medford, New Jersey and obtained my undergraduate degree in Biological Sciences from the University of Maryland, Baltimore County. During my time there, I worked on cellular mechanisms of restoration of the sense of smell. As such, I have always had an interest in neuroscience and I came to CSU through the MCIN program and just recently transferred to CMB where I will be working on susceptibility factors to prion disease with Dr. Glenn Telling. When I'm not in the lab I enjoying hiking, climbing and snowboarding and exploring everything Colorado has to offer."



Seré Williams

"Sere Williams has just completed a MS in the CMB program this summer and will be continuing on to earn a PhD. After earning a BS in Biology from CSU, she worked with the National Park Service and Forest Service building trails in the Rocky Mountains, finding nesting sea turtles on the gulf coast of Texas, and conducting plant surveys in Northern California. She returned to Colorado and worked as the plant pathology technician with AB InBev (formerly Anheuser-Busch) helping breed better malting barley for beer. A love of plants firmly established, she spent the last 2.5 years studying a stress-responsive transcription factor in rice seedlings. She is excited to continue delving into the complex molecular mechanisms of plant physiology as she begins her PhD."

CMB Publications

Schwerdtfeger LA, **Nealon NJ**, **Ryan EP**, **Tobet SA**. Human colon function ex vivo: Dependence on oxygen and sensitivity to antibiotic. *PLoS one*. 2019 May 16;14(5):e0217170.

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