CMB Newsletter

Issue 12 | Spring | 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!

Advance your career early and often – seriously, start now!

By: Kristen Brown

We enter graduate school to enhance our career prospects, to start the road to professorship, or to venture into a different scientific career. We may start with specific goals, but many change along the way. I long wanted to be a professor because I enjoy teaching and mentoring. However, the more time I spent in school and the more involved I became outside of it, the more I learned that you can teach and mentor in any career. I want you to start exploring career options and how you can work toward them beyond just "finish your degree".

You might think that having MS/PhD follow your name would be enough to get hired in a lucrative position – after all, it's an advanced STEM degree so surely there are high-paying jobs for you out there! Well, while basic sciences like biology are one of the few fields where a PhD is monetarily worthwhile[1], no one owes you a job just because you completed a graduate degree. In fact, your competition is other MS/PhD graduates in the same spot! Perhaps you've been a successful academic – fellowships, publications, conference presentations, so why won't this just equal job success[2,3]?

I have witnessed many fellow student job searches where they often struggled for months before accepting an academic postdoc position they didn't want just to get by because they didn't put the effort in sooner. Do a postdoc if you want to be a professor, but don't let inertia carry you into it[4,5]. Instead, invest a little time now, long before your defense, and throughout your degree, working on your career so you get the postdoc or industry position you actually want. So many of us focus on "getting out" and think that if we focus on research 24/7, we'll finish sooner, feel less guilty, and get on with our lives. But what is the point of finishing your degree sooner if you spend the next several months to years underemployed or unemployed? Spending all your time on research might allow you to finish early, but academic research doesn't always have a set start and end. Many of us experience burnout if we overwork, we make mistakes after so many hours at the bench, or we become bitter by it all and that comes across during interviews. Don't let that be you. A little time working on yourself and your career now can save a lot of time later, regardless of if you're aiming for academia or industry. Here's an incomplete list of what I believe you can do to advance your career long before you need it.

1. Low-effort items to work on periodically in small bursts to build a foundation:

a. *Research potential jobs: Make a list of companies that hire the positions you want and what the minimum and desired qualifications/skills are*

b. *Create a resume / CV: Tailor it for each desired job & update it periodically. Have it reviewed by peers and mentors.*

c. *Create an online presence: "Brand" yourself and connect with people. Make it easy for people to find you & what you want them to see – people will look for you after you meet or when you apply. (consider LinkedIn, ResearchGate)*

Advance your career early and often continued…

d. *Create a portfolio of work: Learn to describe your research and activities in a way that translates to the job you want.*

2. Medium-effort items to work on that require more time, but not too much effort.

a. Find a career mentor: Find someone that is in a position you want or can talk to about their/your career. This might be your PI, or a scientist on Twitter.

b. Attend workshops or tutorials: Work on gaining the skills in those job postings you may not get from your lab work

c. Attend conferences and networking events: Build a network long before you need it. Attend those where companies/universities you want to work for also attend. Even professors use their network to hire. (consider Brews & Biotech)

d. *Join clubs and meetups: Another way to work on desired skills, but also to meet locals and other students interested in the same things (consider bioinformatics club)*

e. *Apply for fellowships and professional development programs: If you're gunning for academia then fellowships are essential. Otherwise there are professional development programs that can be useful. (consider GAANN, GAUSSI at CSU)*

3. High-effort items that require more involvement, can be harder to get into, but can be very rewarding long-term.

a. Volunteer for an organization, committee, event: Demonstrate your leadership and teamwork skills and meet people working in the field by organizing events/conferences/etc. This can also result in more recommendations later. (consider CMBSA, GSC, national organizations)

b. Work on professional side projects: Working on a side project shows initiative and passion for the field as well as something for the portfolio. (write articles, code)

c. Even more networking: Consider reaching out to people and companies directly for informational interviews, interact with them on social media (Twitter!), and otherwise be proactive about building relationships long before the job hunt.

d. Do an internship/externship: Apply or contact companies about possibilities. Industry values professional over academic experience. Do more than one, and/or plan it toward the end of your degree (higher chance you'll get one + get a job after!).

If you have more questions, feel free to reach out (kristen.brown@colostate.edu)!

CMB Social Events

International Potluck Event - by Platon Selemenakis

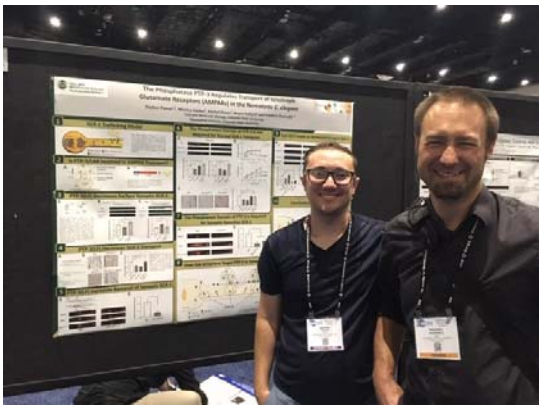
This past Fall, right before fall break the Diversity Group hosted an International potluck to celebrate the different cultures within the CMB program. Savory dishes and delightful desserts prepared from our CMB students filled MRB 312 and our tables. The potluck celebrated cultural diversity as students put on their aprons to cook the most delicious traditional food to represent their country or state. It was a great opportunity to learn about different cultures and chat with people from every corner of the world. We also had a world map that students could pin their country and state of origin. CMB students are from all over the globe! The evening ended with great success, so stay tuned for our next International potluck event.

CMB Students Traveled to Conferences around the United States to Share their Research!

Kaila Nip – Neuroscience 2018, San Diego, CA.

With support from CMB Travel Awards, I attended the Neuroscience 2018 meeting held in San Diego, CA. This meeting holds the accolade of being the largest neuroscience conference in the world! It was an eye-opening, overwhelming, and valuable learning experience. There were different platforms of research being constantly presented, with posters, mini-symposiums, nano-symposiums, regular symposiums, and Presidential lectures. Topics at the conference ranged from neurodegenerative diseases to neuronal development to motivation and emotion. One of my coolest experiences was hearing one of the Presidential lectures covering dArc matter of synaptic communication by Dr. Vivian Budnik, and then realizing I presented her published work in one of my recitation classes here at CSU! It was great connecting the classroom experience with one that I was experiencing at the conference. Another great experience was presenting my research during a 4 hour poster session. I was extremely surprised to meet a post-doc from the lab who also does research on the same protein I work on, and I had a helpful illuminating conversation with her. Overall, this was the largest conference I have ever attended, and I learned a lot about the diversity of the neuroscience field.

Dayton Pierce – Neuroscience 2018, San Diego, CA.



I attended this year's Society for Neuroscience conference in San Diego where the attendee number was greater than 38,000 people. I was lucky enough to present a poster on my current work where I was not only tested for my knowledge, but was also able to acquire invaluable knowledge by talking to the field's leading experts. At a conference this large, networking is a must which I fortunately was able to make time for. Not only did I meet with current collaborators, but was able to forge new connections with people around the world! All in all, this was an amazing experience and I look forward to attending this event again in the future. Also, can't beat San Diego weather!

Jared Luxton – Radiation Research Society Conference, Chicago, IL.

Great art is much like great science – exposition, execution, and analysis of some idea; or maybe the opposite, since they didn't really look like samurai. I received the CMB travel award back in September and attended the Radiation Research Society Annual Conference in Chicago, Illinois. I had an extremely good time – I was lucky to become acquainted with alumni from my department (ERHS), who attended CSU years back, and now work at places like the NIH. As well, I made friends with post-docs and graduate students from a variety of places (Japan, Washington State). The food in Chicago was awesome, more sushi and ramen than I needed to eat! Thanks to CMB for making my trip possible.

More travel……

James Curlin – Nonhuman Primate Models for AIDS Symposium, Seattle, WA.

My experience attending the 36th Annual Symposium on Nonhuman Primate Models for AIDS this past October was both rewarding and enlightening. Experts from across the globe gathered to present their research, which ranged from drug trial results using rhesus macaques to establishing new nonhuman primate models to study other pathogens such as Zika virus. I presented a poster showcasing my work studying the evolution of SIV, a virus originating in nonhuman primates, into the related HIV using humanized mice. With Thomas Hope, a leader in the field as a keynote speaker, and Timothy Ray Brown, the only man known to be cured of HIV both in attendance, this conference was a fantastic opportunity to establish new connections and exchange new ideas. The conference was hosted at the Bell Harbor International Conference Center in Seattle, Washington, and was a short walk away from both the iconic Space Needle as well as the Seattle Aquarium, where the closing banquet for the conference was located. Overall, this conference was a fantastic experience, and my first experience in Seattle was unforgettable.

Kristen Brown - *International Conference for High Performance Computing, Networking, Storage, and Analysis (or just SC18), Dallas, TX*

I had a great time at SC18 as a lead student volunteer! Industry, academia, and national labs are well represented and the sessions span many topics related to high performance computing (HPC). SC also builds the world's fastest network for 1 week! This year, IBM even brought a quantum computer! Students@SC is aimed at creating a diverse community in HPC and their sessions are designed to help with career advice and bring you into the community. There are >150 student volunteers and 10-20 leads to help the conference run smoothly. I've had the honor of being a lead for two years and I am on the SC19 planning committee for student engagement. If you're interested in HPC, bioinformatics, or data science, consider joining us at SC19 this November in Denver! We will be meeting students in the spring to discuss applying – let me know if you want to learn more! (https://sc19.supercomputing.org/)

Upcoming Professional Development Events

In the current climate, there is an urge to be able as scientists to approach politicians and communicate our research to influence policy decisions. As developing scientists and public servants, it is very essential to learn how to connect with non-scientists and communicate our research in a more approachable and understandable way to serve and support the public . To achieve this CMBSA is very excited to organize two events this upcoming Spring semester: a panel of Science policy experts in mid-March and a visit at the State Capitol in Denver in late April. This is a great opportunity for students to meet with legislators and scientists involved in policy making and learn how legislature functions. Stay tuned for future announcements regarding details of this event.

Congrats CMB Graduates!

Jessie Filer, Ph.D., Geiss Lab:

Development of Electrochemical Assays and Biosensors for Detection of Zika Virus

Lyndah Chow, Ph.D., Dow Lab:

Immune Modulatory and Antimicrobial Properties of Canine and Human Stem Cells

Rasha Alnefaie, Ph.D., Garrity Lab:

Characterization of Zebrafish Models of Filamin C Related Cardiomyopathy

Stephanie Marie Little Thunder Morphet, Ph.D., Belisle Lab:

Investigation Of Phenolic Glycolipid As A Biomarker of Bovine Tuberculosis

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

Nadya Aswish, Ph.D., Roess Lab:

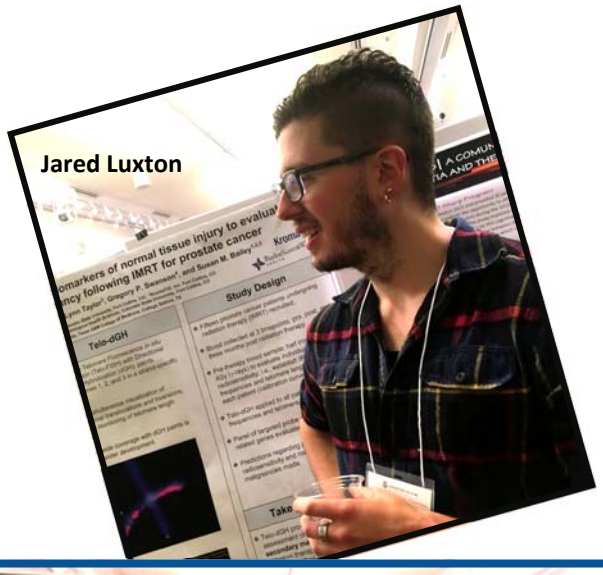
Increased Expression Of Insulin-Like Growth Factor Receptor In Older Mares May Reduce Overall Insulin Sensitivity Despite The Presence Of Insulin Receptor

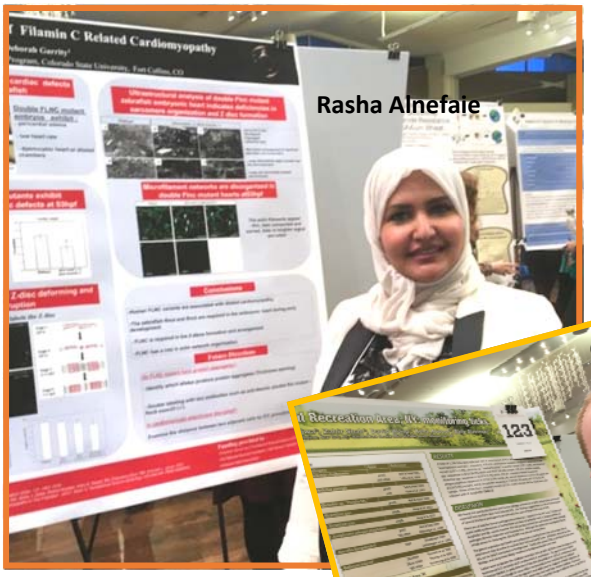
Graduate Student Showcase Winners!

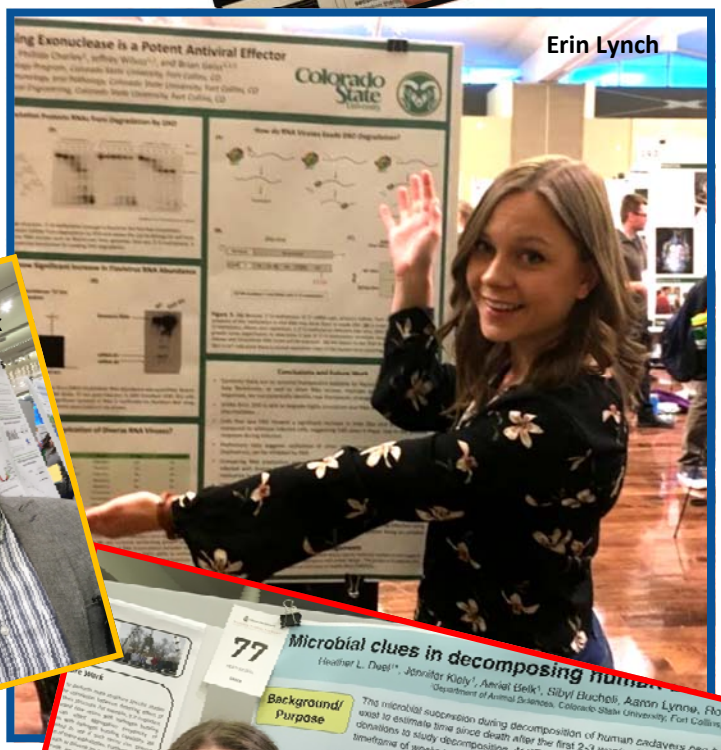
Many students had the opportunity to hone their presentation skills in CM792 in preparation for the Graduate Student Showcase. Twenty-four CMB students in total participated in the program, with five of them bringing home awards. Congrats to the following winners!

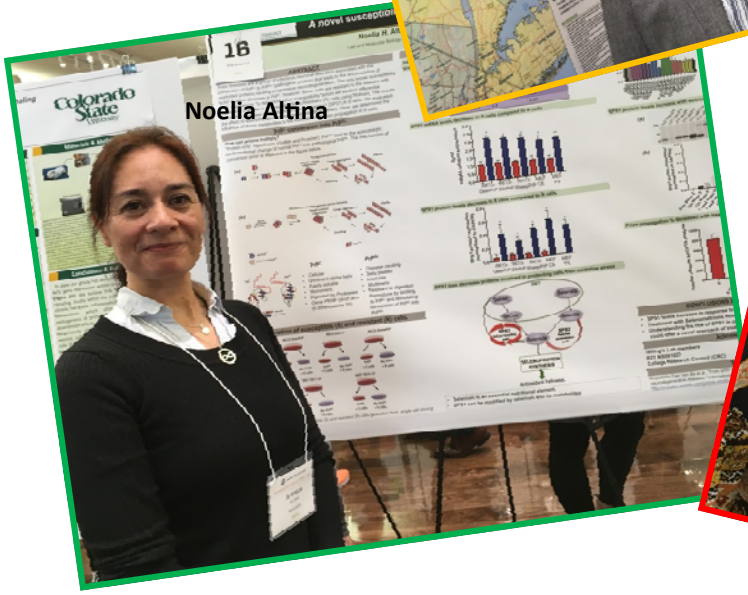
Great Minds in Research Award
Paige Ostwald Debbie Garrity Lab (Biology): 2nd place ($150)
Tom Bickett Angelo Izzo Lab (MIP): Honorable Mention ($100)
Graduate Student Council Research Top Scholar Award
Noelia Altina Glenn Telling Lab (MIP) ($200)
Undergraduate Choice Research Top Scholar Award
Hannah Berry Cris Argueso Lab (BSPM) ($125)
Top Scholar for University Wide Graduate Programs
Jared Luxton Bailey Lab (ERHS) 2nd place ($300)

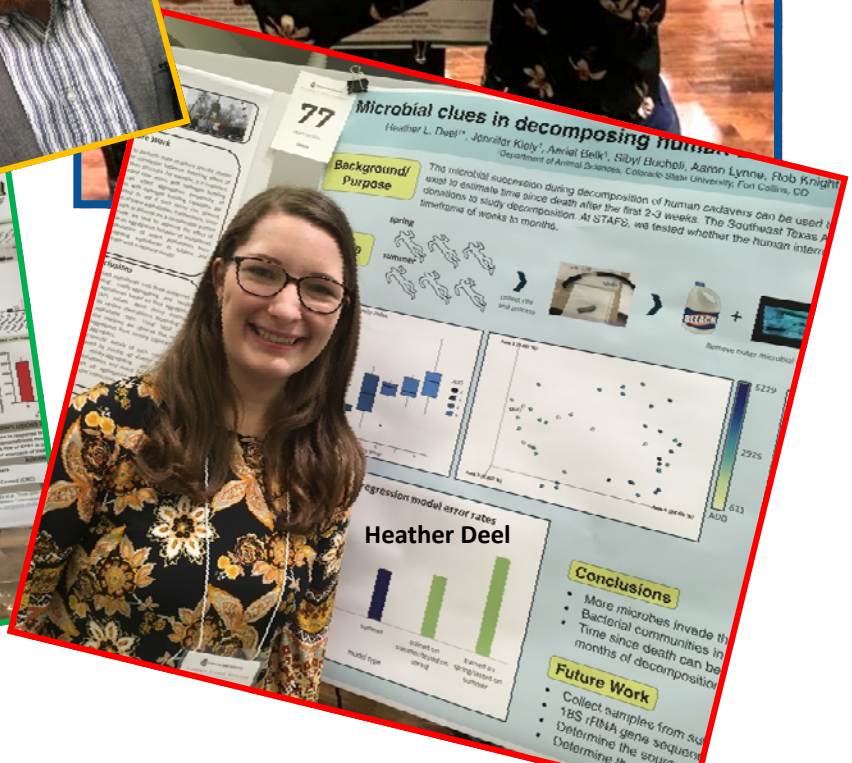
In addition, **Heather Deel** (AniSci), **Jared Luxton** (ERHS) and **James Curlin** (MIP) were selected to compete for $4000 Fellowships in the VPR Challenge on Feb 11 from 1-4pm in the LSC Greyrock Room.











Graduate Student Awards!

CVMBS Research Day

Congratulations to **Nora Jean Nealon** from the Ryan Lab in ERHS on winning second place in the Outstanding Oral Presentation—Basic Science Division, for her presentation entitled ""A non-targeted metabolomics approach for understanding synbiotic growth suppression of antimicrobial resistant *Salmonella typhimurium*"

CMB Outstanding Student Scholarships

$250 each, 5 more available in the Spring (deadline May 1st)

Matt Dilsaver (applied for NSF-GFRP)
Erin Lynch (applied for NSF-GFRP)
Hannah Berry (applied for USDA/NIFA)
Paige Ostwald (applied for NSF-GFRP)
Kristin Scott (applied for NSF-GFRP)

CMB Travel Awards

next deadline is March 1 for travel through June 30

September:
Kaila Nip—Society for Neuroscience 2018, San Diego
Dayton Pierce– Society for Neuroscience 2018, San Diego
Jared Luxton – Radiation Research Society 2018 Annual Meeting, Chicago
James Curlin - Nonhuman Primate Models for AIDS: 36th Annual Symposium, Seattle

December:
Heather Deel - American Academy of Forensic Sciences Baltimore
Zeyad Arhouma – American Chemical Society Meeting, Orlando
Alissa Williams – Plastid Biotechnology Gordon Conference, Ventura CA
Katie Cronise - American Society for Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting at Experimental Biology, Orlando

New CMB Graduate Students

Five students join CMB this Spring semester. Please welcome them if you see them around campus!

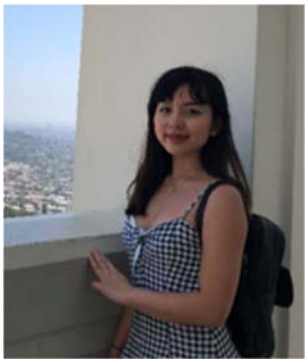
Amy Hodges I was born and raised in Atlanta, and obtained a bachelor's degree in Biological Sciences from the University of Georgia in 2015. I worked as a research technician in a plant genetics lab at UGA for a year after I graduated, and then moved out to Fort Collins with my fiancé in 2016. I have been working as a research technician in the DeLuca Lab in since 2016, and am now making the transition from technician to student as I begin my Master's in CMB. My project focuses on a mitotic kinetochore protein called Spindly, and investigating its role as a dynein cargo adaptor in human cells. In my free time I enjoy playing roller derby for the FoCo Roller Derby league, as well as forcing cuddles on my reluctant cat .

New CMB Graduate Students (cntd)

Pardis Mohammadzadeh Pardis finally arrived in Fort Collins over winter break after problems with her visa! She is teaching LIFE201B and rotating through labs to find a home for her PhD.

I was born and raised in the southwestern region of Iran (Persia) and moved to Tehran (the capital of Iran) for my undergraduate studies in the field of Cell and Molecular Biology at University of Tehran. After graduation, I started working as a R&D expert in a cosmetics company for 1 year and then joined the graduate school to study M.Sc. of Medical Biotechnology at Isfahan University of Medical Sciences, School of Medicine. In my master studies, I worked on a novel cancer theranostic at Tehran University of Medical Sciences, School of Pharmacy joined with Pasteur Institute of Iran. Since then, I've worked as a research assistant on molecular imaging and targeted therapy . My interests include cancer biology, novel diagnostic and treatment strategies for cancer, computational biology and genomics, regenerative medicine and tissue engineering. In my spare time, I like doing sports, cooking and hanging out with my friends. I also like traveling the world to earn new experiences .

Seré Williams Seré Williams is passionate about understanding abiotic stress response in plants. Working towards her MS in the Reddy Lab in the Department of Biology, she is looking at drought stress response in rice. A specific transcription factor is known to be involved in cold, herbivory, and salt stress response. In rice, a knock-out mutant of this transcription factor shows wilting while the wild type is still standing strong. Seré is generating complimented and overexpression lines to verify that this drought response phenotype is linked to this transcription factor. She is also performing RNA-seq to identify specific gene products differentially regulated in drought stress response. Seré is analyzing big data to help solve complex problems, and ultimately, help farmers grow crops in a changing world.



Nikki Huynh I was born and raised on both coasts of the US: Huntington Beach, California and Orlando, Florida. I obtained my Biomedical Sciences bachelor's degree from University of Central Florida. During those years, I had my fair share of lab experience from working with animal models to anaerobic organisms. Now I'm currently working with Dr. Reddy on elucidating the SR45 protein role in alternative splicing by identifying its RNA binding targets in *Arabidopsis thaliana.* When I'm not roaming around the lab, I like to go hiking, go to concerts, and try out new breweries around Fort Collins.

Sam Brill

I was born and raised in Grand Rapids, Michigan and obtained my undergraduate degree at Michigan State University. During my undergraduate education, I developed an interest in the science and ethics behind lab animal models. My research background thus far has been studying the pathogenesis of HIV, from *in vitro* models all the way to macaque models.

I came to CSU to take part in the DVM/PhD program. Here, I am working in the emerging field of cancer immunotherapy. I am excited to be able to take part in the exciting research being conducted by the world renowned Flint Animal Cancer Center under the mentorship of Dr. Doug Thamm.

In my free time I enjoy reading, fishing, and hanging out with my kitty.

CMB New Faculty

CMB would like to welcome all of the new faculty to the graduate program!

Marc Nishimura

Biology/BIO, Plant-microbe Interactions, Plant Immunity

Marcela Henao Tamayo

Microbiology, Immunology and Pathology/MIP, Mycobacterial Immunology, Flow Cytometry

Soham Chanda

Biochemistry and Molecular Biology/ BMB, Neurodevelopment, Translational Neuroscience

Ed Hoover

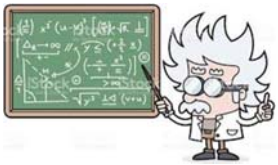
Microbiology, Immunology and Pathology/MIP, Pathogenesis of Retrovirus and Prion Diseases

Candace Mathiason

Microbiology, Immunology and Pathology/MIP, Prion Biology, Chronic Wasting Disease

Greg Ebel

Microbiology, Immunology and Pathology/MIP, Arthropod-Borne Viruses, Virus-Mosquito Interactions



Mike Lyons

Microbiology, Immunology and Pathology/MIP, Computational Modeling/Simulation, Drug Development

Asa Ben Hur

Computer Science/CS, Predictive Bioinformatics, Protein Function, Alternative Splicing

Rushika Perera

Microbiology, Immunology and Pathology/MIP, RNA Virology, Arbovirus Replication

Kelly Wrighton

Soil and Crop Sciences/SCS, Plant Microbiome, Carbon and Nitrogen Cycling

Tim Stasevich

Biochemistry and Molecular Biology/ BMB, Epigenetic Gene Regulation, Live-Cell Microscopy

Brian Munsky

Chemical and Biological Engineering/CBE, Predictive Modeling, Gene Regulatory Networks

Shing Ho

Biochemistry and Molecular Biology/ BMB, Nucleic Acid Structure, Biomolecular Halogen Bonds

CMB Grant Highlights

Student Grants

Heather Deel, Graduate Research Fellowship Award, National Institute of Justice.

Heather was one of two students in the Metcalf Lab receiving this prestigious fellowship which covers her stipend and tuition for 3 years!!

Faculty Grants

Glenn Telling, MIP, Characterizing the strain and host range properties of prions causing emergent forms of chronic wasting disease, NIH-NINDS - R01
Adam Chicco, BMS, Integrative metabolism of oocyte development and its modulation by maternal diet, NIH-NICHD - R21
Tiffany Weir, Christopher Gentile, FSHN, Exploring A Novel Role of the Gut Microbiota In Obesity-Related Vascular Dysfunction American Heart Association
Dan Sloan, Biology RESEARCH-PGR: The Cytonuclear Dimension of Allopolyploidy NSF
Christie Peebles, CBE, Synthetic Biology Tools for Gene Discovery in Plant Natural Product Pathways NIH
Gerrit Bouma, BMS, Regulation of trophoblast function by histone lysine demethylase and nuclear hormone receptors USDA-NIFA
Jane Stewart, BSPM, A comparative study looking at isolates of the plant pathogenic bacterium Lonsdalea quercina present in Colorado and California, USA. DOI-USGS-Geological Survey
Jeffrey Hansen, BMB, Model Studies of Chromosome Structure and Dynamics, NSF

Spring 2019 CMB Seminars

Seminars are held Tuesdays at 10am in Pathology 103

February 5th: Dr. Lee Niswander, University of Colorado Boulder, Department of Molecular Cellular & Developmental Biology

February 19th: Dr. Elizabeth McCullagh, University of Colorado Anschutz Medical Campus, Department of Physiology and Biophysics

March 5th: Dr. Heike Sederoff, North Carolina State University, Department of Plant and Microbial Biology

March 26th: Dr. Cameron Currie, University of Wisconsin, Department of Bacteriology

April 9th: Dr. Walter K. Schmidt, University of Georgia, Department of Cellular Biology

April 23rd: Dr. Soham Chanda, Colorado State University, Department of Biochemistry and Molecular Biology **& CMB!!**

May 7th: Dr. Bryce Falk, University of California, Davis, Department of Plant Pathology

Contact Stephen Coleman if you would like to meet the speaker.

CMB Alumni News

Katriana Popichak (PhD 2018) is the new instructor for MIP300 in the MIP Department here at CSU.

Julie Moreno (PhD 2009; Asst Professor, MIP) worked with donors and **Glenn Telling** to establish the Murphy Turner Fund to support the Prion Research Center. Read more in this Source article.

Stephanie Morphet (PhD 2019) was hired by SiVec Biotech as a post-doctoral research fellow.

Jessie Filer (PhD 2019) was hired by PhiMed Communications as a Medical Writer.

Upcoming Events and Opportunities

Professional Development for Graduate Students

http://graduateschool.colostate.edu/professionaldevelopment/professional-development-workshops-and-events/

BMB/CMB/MCIN Spring Poster Symposium

What: The annual poster symposium to show off your science and gain experience presenting your research in a poster setting.
When: Friday, February 22nd, 2019 from 3 - 6 pm
Where: CSU Lory Student Center Ballroom 350 CD
How to participate: Submit abstracts to CMB@colostate.edu no later than **Monday, February 11th, 2019 at 7:00 AM**.

Brews and Biotech Event

What: There will be an industry panel with Tina Larson at Recursion (SLC Utah) and other companies
When: March 7th at 3:30, then a happy hour from 5:30-7pm.
Where: Stay tuned for the location of the event.

Front Range Microbiome Symposium

What: Featuring excellent keynote speakers including Jill Banfield of UC Berkeley and Ed Yong of *The Atlantic and author of I Contain Multitudes.*
When: April 18th - 19th
Where: CSU stadium
Registration and abstract submission opens January 23rd, and can be completed here: http://frontrangemicrobiomesymposium.com/

CMB Peer Mentor Events

Peer Mentor Club is back this Spring! Thanks to Carol, we were selected as a recipient of this year's Graduate School Mentoring Mini-Grant allowing us to provide lunches and dinners at PMC meetings! In addition, we are planning on inviting a few guests from academia, industry, and government to contribute and help mentor current CMB students. PMC will still focus 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 after 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 Erin Lynch and Matt Dilsaver (erinl@rams.colostate.edu) (Matthew.Dilsaver@colostate.edu)!

CMB Recruitment Weekend

What: 18 student recruits will be visiting CSU! Come support our future CMB members! Be on the lookout for emails regarding activities with recruits in the coming weeks.
When: February 20-23
A CMB-wide event will be held at Coopersmith's on Feb. 21st from 6-9pm in the pool area.
Contact charlene.spencer@colostate.edu for further details.

CMB Newsletter Writers and Editors:

Student Writers: Adam Heck, Heather Deel

Student Editors: Hannah Berry and Heather Deel

Faculty Editor: Carol Wilusz

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: http://csu-cvmbs.colostate.edu/academics/mip/Pages/Department-Seminars.aspx
Molecular Cellular and Integrative Neuroscience Seminar Series: http://mcin.colostate.edu/seminar.html
Chemistry Department Seminar Series: http://www.chem.colostate.edu/seminars-current/
Biology Department Seminar Series: http://www.biology.colostate.edu/seminars-current/
Biomedical Engineering Seminar Series: http://www.engr.colostate.edu/bep/students/seminars.html
Bioagricultural Science and Pest Management: http://bspm.agsci.colostate.edu/01-2/seminar-series/

CMB Publications

WOW! What a fantastic year for sharing scientific progress with over 90 publications across CMB, congratulations!

Publications below are those with CMB student authors.

Programmed Cell Death Ligand 1 (PD-L1) Signaling Regulates Macrophage Proliferation and Activation. **Hartley GP, Chow L**, Ammons DT, Wheat WH, **Dow SW.** Cancer Immunol Res. 2018 Oct;6(10):1260-1273. doi: 10.1158/2326-6066.CIR-17-0537. Epub 2018 Jul 16.

Cytonuclear integration and co-evolution. **Sloan DB,** Warren JM, **Williams AM**, Wu Z, Abdel-Ghany SE, **Chicco AJ,** Havird JC. Nat Rev Genet. 2018 Oct;19(10):635-648. doi: 10.1038/s41576-018-0035-9. Review.

A Case Study of Genomic Instability in an Industrial Strain of *Saccharomyces cerevisiae*. Rodrigues-Prause A, **Sampaio NMV, Gurol TM, Aguirre GM, Sedam HNC**, Chapman MJ, Malc EP, Ajith VP, Chakraborty P, Tizei PA, Pereira GAG, Mieczkowski PA, Nishant KT, **Argueso JL**. G3 (Bethesda). 2018 Sep 25. pii: g3.200446.2018. doi: 10.1534/g3.118.200446.

Cancer stem cell populations in lymphoma in dogs and impact of cytotoxic chemotherapy. **Hartley G**, Elmslie R, Murphy B, Hopkins L, Guth A, **Dow S.** Vet Comp Oncol. 2018 Sep 20. doi: 10.1111/vco.12447.

Checkpoint molecule expression by B and T cell lymphomas in dogs. **Hartley G**, Elmslie R, **Dow S**, Guth A. Vet Comp Oncol. 2018 Sep;16 (3):352-360. doi: 10.1111/vco.12386. Epub 2018 Jan 30.

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