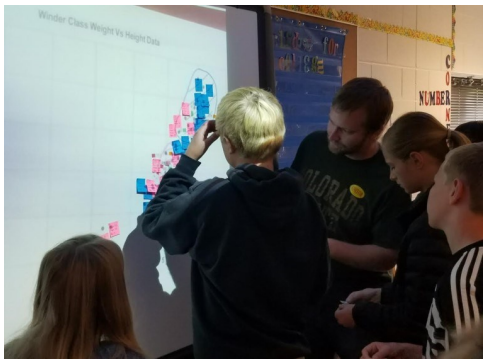
CMB Newsletter

Issue 9 | Fall | 2017

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 Adam Heck (Adam.Heck@colostate.edu) or Kaitlin Doucette (Kaitlin.Doucette@colostate.edu) with news or if you want to become involved

CMB/GAUSSI Students Spread Science to Local Elementary Schools

By: Adam Heck



Last spring, several CMB students took part in outreach projects, through the GAUSSI program, at local elementary schools. Hailey Conover Sedam, Nadia Sampiao, Dayton Pierce, Jessie Filer, Shea Moore-Farrell and Adam Heck helped design and implement modules for the "Biochemistry is Elementary" series in 5th grade classrooms at Skyview Elementary in Windsor, CO. Conover Sedam, Sampiao and Heck created a 'Big Data' module which taught students the importance of collecting and analyzing large data in order to spot trends and make inferences. Filer worked on the "Hurray for Histograms" module where students learned about the importance of modeling data in graphs in order to draw conclusions. Pierce's module highlighted the 'central dogma' of biology and the transfer of information from DNA to RNA to protein. The module emphasized the consequences that can occur from even minor changes in the genome. Finally, Moore-Farrell introduced 1st graders at Liberty Common Elementary School here in Fort Collins to the effect of plants on the ecosystem. Not only did they learn about how plants intake CO_2 and export O_2 into the environment, but they also got to take the plants they grew home with them at the end of the experiment. All of these CMBers are doing a great job at inspiring the next generation of scientists!

Erin Osborne Nishimura Wins Research Award from Boettcher Foundation

CSU assistant professor and CMB faculty member Erin Osborne Nishimura was recently a recipient of the Webb-Waring Biomedical Research Award from the Boettcher Foundation. The Webb-Waring Biomedical Research Award is presented each year to several top Colorado early-career researchers and provides $235,000 to recipients to advance their independent research and help them compete for major federal and private awards. The Osborne Nishimura lab's research focuses on utilizing high-resolution microscopy in order to map changes in gene expression during early embryonic stages that lead to specific identities for each cell. The lab currently employs these techniques in the model organism *C. elegans*, but plans to expand to a human cell culture system that models cancer onset in the future. Osborne Nishimura joins fellow CMB faculty members Lucas Argueso, Brad Borlee, Tai Montgomery, Chris Gentile and Tingting Yao as Boettcher Investigators. For more information about this year's Boettcher Recipients or the Osborne Nishimura Lab, please visit these links; 2017 Boettcher Award and Osborne Nishimura Lab.

Erin Osborne Nishimura

CONGRATS to CMB Summer Graduates!

CMB PhD Graduate with a specialization in Cancer Biology:

Miles McKenna

Thesis: Activity and Structural Variants as Biomarkers of Extreme Environments

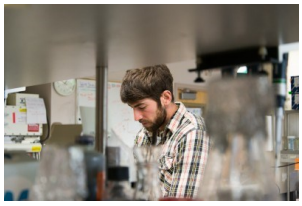
Advisor: Susan Bailey

CMB PhD Graduates:

Mohammed Albaquami-

Thesis: In Vitro and In Vivo Studies on Pre-mRNA Splicing in Plants

Advisor: A.S.N. Reddy



Christopher Nelson-

Thesis: Telomeric Double Strand Breaks Undergo Resection—But Not Repair—in G1 Human Cells

Advisor: Susan Bailey

CMB MS Graduate:

Kelly Cunningham-

Thesis: Evaluating Biomarkers of Radiation Exposure in Wild Boar from Fukushima, Japan

Advisor: Susan Bailey

First Year CMB Students 2017-2018

By : Alissa Williams

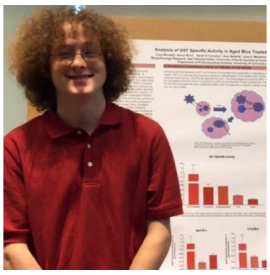
Heather Deel: "I was born and raised in Houston, Texas, and I got my BS in Biology at Sam Houston State University. There, I got to become familiar with the body farm, which through various events is what led me to CSU! My hobbies include reading, video games, my cat, and exploring Colorado, as it is all very new to me!"

Matthew Dilsaver: "I was born and raised in Cheyenne, WY. I attended the University of Wyoming in Laramie for my undergrad and received a dual bachelor's in Chemistry and Molecular Biology. After graduation I went on to work for the Levy lab for about 2.5 years. I loved research and decided graduate school was something that needed to happen if I wanted to continue on this career path. My work in Dan's lab primarily focused on emerin's effects on the nucleus in the absence of its binding partners. I like to do just about everything from hiking and fishing in the mountains to marathoning all of the Star Wars movies. Snowboarding is also a favorite hobby of mine and I enjoy to go as often as work permits."

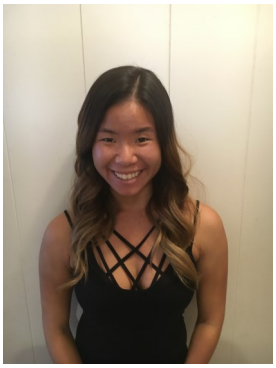
Erin Lynch: "I was born in Chicago, IL and moved to Parker, CO at the age of 5. I attended CSU and received my Bachelor's degree in biochemistry. In my free time I love being outdoors and hiking or playing board games."

First Year CMB Students 2017-2018 Continued

Garrett Heck: "I'm originally from Pittsburgh, PA, but earned my BS in cell and molecular biology at Towson University in Towson, MD. Since graduating, I've worked as a fellow for Army Public Health Center doing research and surveillance work on vector-borne diseases, focusing largely on illnesses transmitted by ticks. My hobbies include cycling, hiking, camping, and reading."



Cary Mundell: "My name is Cary Mundell. I am from Fayetteville, North Carolina. I went to the University of North Carolina at Pembroke, a tiny university in the middle of nowhere. I graduated with a degree in biology with a molecular focus. I was part of my institution's RISE program and spent 3 years working at the William C. Friday Biotechnology Center under the direction of Dr. Ben Bahr. While under his tutelage I was involved in the characterization of the effects of a novel treatment for Alzheimer's disease on mice as part of a pre-clinical screen. This compound acts to reduce the presence of abnormally accumulated proteins by upregulating the enzymatic activity of Cathepsin B. In my spare time I like to cook, hike, and play Magic the Gathering with my fiancée Amanda Taylor. I am looking forward to my time here at CSU."



Kaila Nip: "Aloha, my name is Kaila Nip and I was born and raised in Lahaina, Hawai`i. I obtained my Bachelor's of Science degree in Biology at Linfield College. While there, I worked with the cortactin protein and examined its various physical conformations. I was also the teacher's assistant for two years in the General Chemistry lab. During my two-year break from school, I worked for the Hyatt Hotels Corporation in Maui, HI and in Austin, TX. My favorite hobbies include going on hikes, playing tennis, and reading Harry Potter books. I also like to travel to new places and explore different cultures."

Paige Ostwald: "I grew up in Arvada, Colorado and just completed my undergraduate degree in Biological Sciences with a minor in Biomedical Engineering at the great Colorado State University! I love being in the mountains, watching football (Go Broncos!) and spending time with family and friends. Throughout my undergrad I've worked in research labs at CSU and at the University of Colorado Anschutz Medical campus. Science is my passion!"

Lisa Schlein: "I'm originally from Arvada, Colorado. My undergraduate work was in astronomy and anthropology at CU-Boulder. I obtained my MBA and DVM from Colorado State University, and have just completed a clinical pathology residency at the University of Illinois. While there, my MS research examined a novel therapeutic for brain cancer, in both humans and pet dogs. I am excited to return to CSU to pursue comparative oncology research. In my spare time, I do companion animal acupuncture, play clarinet, do yoga, and dance—west coast swing is my favorite. I'm happy to be home, and look forward to hiking in the Rockies."

Summer Conferences and Internships:

By: Allison Werner

Hailey Conover Sedam participated in the **New Mexico IDeA Network for Biomedical Research Excellence (NM-INBRE) 2017 Bioinformatics Intensive Internship** at the National Center for Genome Resources in Sante Fe, New Mexico. Sedam was trained in several bioinformatics techniques, including: sequence analysis and annotation, genome and transcriptome assembly, and analysis of variants. Sedam gained confidence in her ability to perform bioinformatics analyses and is optimistic for a future in data science. “I believe having background training in bioinformatics opens the doors to many more career possibilities, and will probably be necessary for all scientific careers in out lifetime”, wrote Sedam. You can learn more about this internship program at the NM-INBRE website

Tymofiy Lutsiv writes, "This summer, I applied for **Edmund S. Muskie Internship Program, supported by Cultural Vistas and U.S. Department of State**, to augment my graduate studies in the USA with professional experience. It allowed me to do my summer internship at Robert Wood Johnson's Medical School at Rutgers University in Central New Jersey. Under guidance of Dr. Shengkan Jin and his lab team, I have been involved in studying how new pharmacological agents with mitochondrial uncoupling activity affect aggressiveness and survival of tumor cells. Even though my internship had more of an educational aspect, as I have learned a lot about bioenergetics of cancer and acquired skills in various laboratory techniques and methods to study it, I have also gained invaluable experience in a professional American working environment that made me even more interested in a research career in the U.S. Now I proudly hold the title of a Muskie Intern, and I feel fresh and with a lot of new energy for the new semester at CSU." Cultural Vistas Program for Eastern European Students. Cultural Vistas also has internship opportunities for US students:

Adam Heck , along with post-doc Joe Russo and CMB faculty member **Jeff Wilusz** attended the **RNA Society 2017 conference in Prague** this summer. Heck presented his work on RNA methylation and attended a RNA mentor-mentee lunch where senior scientists shared their career path journeys and experiences. The conference provided a great opportunity for networking with other PhD students, exchange of knowledge from RNA biologists across the globe, and solidified the importance of RNA in every aspect of cellular life. The Colorado delegation also made sure to Czech out the beer!

Next year , the RNA Society Meeting will be held at UC-Berkeley, and in 2019 it will be in Krakow, Poland RNA Society website

Second Years: Where are they now?

By: Alissa Williams

Kelly Cunningham, Bailey Lab (ERHS)

"This summer I defended my master's project titled 'Evaluating Biomarkers of Radiation Exposure in Wild Boar from Fukushima, Japan.' I am finishing up the manuscript for publication later this year and I plan to present my research at the Radiation Research Society meeting in October. In August I will return to my third year of veterinary school here at CSU."

Dawn Hajdu, Cris Argueso Lab (BSPM)

"I joined the lab of Dr. Cris Argueso in BSPM. My research focus will be on plant immunity, especially the role of plant hormone cytokinin in plant defense responses."

Tymofiy Lutsiv, Thompson Lab (Horticulture and Landscape Architecture)

"As I am interested in intracellular signaling and bioenergetics of cancer cells, I've joined Dr. Henry Thompson's Lab to study how inherent aerobic energy transfer capacity is associated with carcinogenesis, focusing on the importance of the AMP signaling network."

Jared Luxton, Bailey Lab (ERHS)

"I began my first year with trepidation and anxiety about my decision to drive across the USA with my then-fiance. However, I'm glad I did—life couldn't be better. I recently got married and I'm fortunate enough to be working in the Bailey lab since last October. I'm currently working on the NASA Twins study: investigating the health effects of space-flight on the human body via monitoring of telomeres. But also, I'm establishing a clinical cytogenetics tool which could improve care of radiation therapy patients. It's been a great year!"

Katy McIntyre, Cris Argueso Lab (BSPM)

"I joined Cris Arugeso's lab last fall. My PhD thesis will be uncovering the molecular mechanism underlying the cross-talk of two hormone signaling pathways in Arabidopsis thaliana."

Dayton Pierce, Hoerndli Lab (BMS)

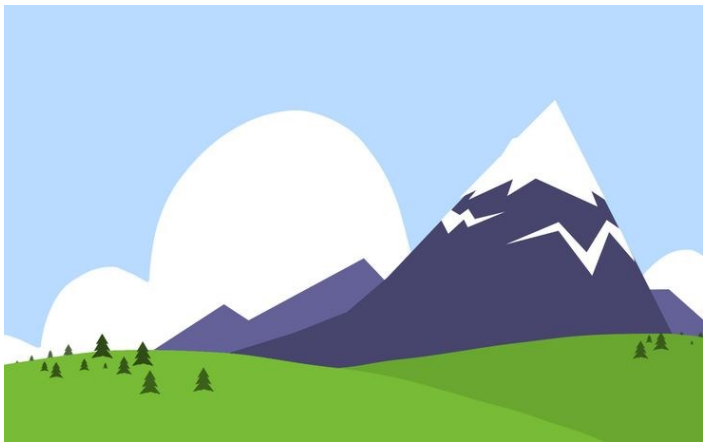
"I joined the Hoerndli Lab this spring and I work on molecular mechanisms underlying glutamate receptor transport in *C. elegans*. Specifically, I'm looking at phosphatases that regulate kinesin transport of these receptors."

Platon Selemenakis, Wiese Lab (ERHS)

"As of May, I joined Dr. Claudia Wiese's Lab in MRB. My research focuses on the effects of ionizing radiation (IR) on cognitive brain function."

Alissa Williams, Sloan Lab (Biology)

"This spring, I joined the Sloan Lab, where I work on interactions between the nuclear and plastid genomes. Specifically, I'm interested in a plastid protease called CLP, which is composed of one plastid-encoded subunit and multiple nuclear-encoded subunits."



Selected CMB Alumni: By: Hailey Conover Sedam

(Pay attention to the CMB website for regular updates on where our graduates are now. Please submit updates for yourself or your friends!)

Aimee Jalkanen, DVM PhD- Aimee is working as a Clinical Research Manager with Merck Animal Health. She will be involved in clinical studies that support veterinary product development.

Mike Caballero, PhD- Mike is currently working on a manuscript and job hunting.

Natalie Pitts, PhD- Natalie currently works for Velocity Sciences, a Biotech company in Boulder Colorado.

Molly Zellner, MS- Molly is currently a Research Specialist for the DNA Sequencing Core Facility at the University of Wisconsin Madison where she performs DNA and RNA sequencing for customers throughout UW, the country, and the world.

Melissa Edwards, PhD- Melissa is an Associate Director at CSU in the Office for Undergraduate Research where she pairs undergraduates with various research opportunities around campus. She is also building a research training lab and is a member of the Honors Department Faculty teaching freshman seminars.

Christopher Van Horn: Currently Christopher is a post doctoral research molecular biologist and a member of the Crop Diseases, Pests and Genetics Research Unit with the USDA-ARS in Parlier, CA. They are responsible for the identification of novel management strategies for key pests and pathogens of grapevine with emphasis on the Xylella fastidiosa pathosystem.

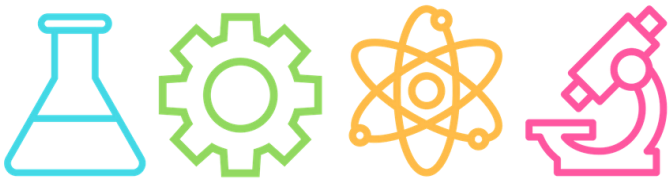
Victoria Harcy, PhD- Victoria is a post doc in Dr. Steven Roberts' laboratory at Washington State University.

Laylaa Ramos, MS- Laylaa is starting her second year of medical school at the University of Colorado School of Medicine while also volunteering in an orthopedics research laboratory.

Mirna Dia Ayshoa, MS- Mirna is currently a product development intern at eScience labs, an Edtech company, where she writes educational courses and makes lab kits for online college courses.

Krystle Frahm- Dr. Frahm was awarded an American Diabetes Association Postdoctoral Fellowship to begin examining a novel obesity-linked gene in a sex-specific and brain-region manner in the lab of Erin Kershaw. Her next step, is to characterize the role of this novel gene/variant in central hypothalamic glucocorticoid and neuroendocrine output through an NIH K01 Research Scientist Development Award co-mentored by Drs. DeFranco and Kershaw through a faculty position in the Division of Endocrinology and Metabolism at the University of Pittsburgh.

Kate Rockenbach, MS- Kate is currently working for Anheuser Busch breeding barley using genotyping and plant cell culture techniques.



Awarded Grants:

Gregory Amberg "HIGH RESOLUTION ANALYSIS OF INTEGRATED SUBPLASMALEMMAL CALCIUM AND OXIDANT SIGNALING MECHANISMS IN GONADOTROPES" NICHD R01 HD087347
Chaoping Chen "ASSAY DEVELOPMENT FOR IDENTIFICATION OF HIV-1 PROTEASE AUTOPROCESSING SPECIFIC INHIBITORS" NIAID R01 AI120365
Ben Miller "DUAL TREATMENT OF SARCOPENIA AND OSTEOARTHRITIS WITH A NRF2 ACTIVATOR" NIA R21 AG054713
Susan Tsunoda "NOVEL MICRORNA REGULATOR OF NEURONAL EXCITABILITY" NINDS R21 NS102467
Jeff Wilusz "FLAVIVIRUS NON-CODING RNAS AND THE HOST MRNA DECAY MACHINERY" NIAID R01 AI123136
Jeff Wilusz "PATHOLOGICAL IMPLICATIONS OF REPRESSION OF CELLULAR RNA DECAY BY ZIKA VIRUS" NIAID R21 AI130497
Mark Zabel "KEY MOLECULAR MECHANISMS OF TSES" NIAID R56 AI122273
CONGRATS to those who have been awarded grants for pushing forward scientific knowledge in their field!!

CMB Publications

CONGRATULATIONS to those pushing science forward! And don't forget to list the Graduate Program in Cell and Molecular Biology as your affiliation when you publish!

Modeling the evolution of SIV sooty mangabey progenitor virus towards HIV-2 using humanized mice. Schmitt K, Mohan Kumar D, Curlin J, Remling-Mulder L, Stenglein M, O'Connor S, Marx P, Akkina R. Virology. 2017 Jul 24;510:175-184. doi: 10.1016/j.virol.2017.07.005.

Evolution of Hormone Signaling Networks in Plant Defense. Berens ML, Berry HM, Mine A, Argueso CT, Tsuda K. Annu Rev Phytopathol. 2017 Aug 4;55:401-425. doi: 10.1146/annurev-phyto-080516-035544.

Oxidative Phosphorylation as a Target Space for Tuberculosis: Success, Caution, and Future Directions. Cook GM, Hards K, Dunn E, Heikal A, Nakatani Y, Greening C, Crick DC, Fontes FL, Pethe K, Hasenoehrl E, Berney M. Microbiol Spectr. 2017 Jun;5(3). doi: 10.1128/microbiolspec.TBTB2-0014-2016.

Detection and characterization of Xanthomonas vasicola pv. vasculorum (Cobb 1894) comb. nov. causing bacterial leaf streak of corn in the United States. Lang J, DuCharme E, Ibarra Caballero J, Luna E, Hartman T, Ortiz-Castro M, Korus K, Rascoe J, Jackson TA, Broders K, Leach J. Phytopathology. 2017 Jul 5. doi: 10.1094/PHYTO-05-17-0168-R.

ALG-5 is a miRNA-associated Argonaute required for proper developmental timing in the Caenorhabditis elegans germline. Brown KC, Svendsen JM, Tucci RM, Montgomery BE, Montgomery TA. Nucleic Acids Res. 2017 Jun 22. doi: 10.1093/nar/gkx536.

Determining the distribution of fitness effects using a generalized Beta-Burr distribution. Joyce P, Abdo Z. Theor Popul Biol. 2017 Jul 12. pii: S0040-5809(17)30035-7. doi: 10.1016/j.tpb.2017.07.001.

Peptide regulation of cofilin activity in the CNS: A novel therapeutic approach for treatment of multiple neurological disorders. Shaw AE, Bamburg JR. Pharmacol Ther. 2017 Jul;175:17-27. doi: 10.1016/j.pharmthera.2017.02.031.

Genome-scale analysis of the genes that contribute to Burkholderia pseudomallei biofilm formation identifies a crucial exopolysaccharide biosynthesis gene cluster. Borlee GI, Plumley BA, Martin KH, Somprasong N, Mangalea MR, Islam MN, Burtnick MN, Brett PJ, Steinmetz I, AuCoin DP, Belisle JT, Crick DC, Schweizer HP, Borlee BR. PLoS Negl Trop Dis. 2017 Jun 28;11(6):e0005689. doi: 10.1371/journal.pntd.0005689.

Prospective evaluation of toceranib phosphate in metastatic canine osteosarcoma. Laver T, London CA, Vail DM, Biller BJ, Coy J, Thamm DH. Vet Comp Oncol. 2017 Jun 15. doi: 10.1111/vco.12328.

Nitrate Sensing and Metabolism Inhibit Biofilm Formation in the Opportunistic Pathogen Burkholderia pseudomallei by Reducing the Intracellular Concentration of c-di-GMP Mangalea MR, Plumley BA, Borlee BR. Front Microbiol. 2017 Jul 25;8:1353. doi: 10.3389/fmicb.2017.01353

Transient absorption imaging of hemes with 2-color, independently tunable visible-wavelength ultrafast source. Domingue SR, Bartels RA, Chicco AJ, Wilson JW. Biomed Opt Express. 2017 May 1;8(6):2807-2821. doi: 10.1364/BOE.8.002807.

Spindle assembly checkpoint signaling and sister chromatid cohesion are disrupted by HPV E6-mediated transformation. Shirnekhi HK, Kelley EP, DeLuca JG, Herman JA. Mol Biol Cell. 2017 Jul 15;28(15):2035-2041. doi: 10.1091/mbc.E16-12-0853.

Novel function of a dynein light chain in actin assembly during clathrin-mediated endocytosis. Farrell KB, McDonald S, Lamb AK, Worcester C, Peersen OB, Di Pietro SM.

Diet-induced obesity causes visceral, but not subcutaneous, lymph node hyperplasia via increases in specific immune cell populations. Magnuson AM, Regan DP, Fouts JK, Booth AD, Dow SW, Foster MT.

The Flint Animal Cancer Center (FACC) Canine Tumour Cell Line Panel: a resource for veterinary drug discovery, comparative oncology and translational medicine. Fowles JS, Dailey DD, Gustafson DL, Thamm DH, Duval DL. Vet Comp Oncol. 2017 Jun;15(2):481-492. doi: 10.1111/vco.12192.

Clinicopathologic features of lingual canine T-zone lymphoma. Harris LJ, Rout ED, Hughes KL, Labadie JD, Boostrom B, Yoshimoto JA, Cannon CM, Avery PR, Ehrhart EJ, Avery AC. Vet Comp Oncol. 2017 Jul 27. doi: 10.1111/vco.12322.

Utilizing Paper-Based Devices for Antimicrobial-Resistant Bacteria Detection. Boehle KE, Gilliand J, Wheeldon CR, Holder A, Adkins JA, Geiss BJ, Ryan EP, Henry CS. Angew Chem Int Ed Engl. 2017 Jun 6;56(24):6886-6890. doi: 10.1002/anie.201702776.

Mycobacterium bovis hosted by free-living-amoebae permits their long-term persistence survival outside of host mammalian cells and remain capable of transmitting disease to mice. Sanchez-Hidalgo A, Obregón-Henao A, Wheat WH, Jackson M, Gonzalez-Juarrero M. Environ Microbiol. 2017 Jun 5. doi: 10.1111/1462-2920.13810.

Mitochondrial proteostasis as a shared characteristic of slowed aging: the importance of considering cell proliferation. Hamilton KL, Miller BF. J Physiol. 2017 Jul 18. doi: 10.1113/JP274335.

A selective distance-based paper analytical device for copper(II) determination using a porphyrin derivative. Pratiwi R, Nguyen MP, Ibrahim S, Yoshioka N, Henry CS, Tjahjono DH. Talanta. 2017 Nov 1;174:493-499. doi: 10.1016/j.talanta.2017.06.041.

Investigation of the relative biological effectiveness and uniform isobiological killing effects of irradiation with a clinical carbon SOBP beam on DNA repair deficient CHO cells. Sunada S, Cartwright IM, Hirakawa H, Fujimori A, Uesaka M, Kato TA.

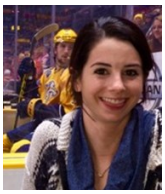
Upcoming Events and Opportunities

CMBSA Announcements

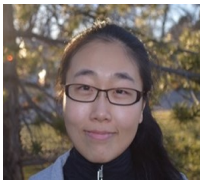
1. CMBSA T-shirts (long sleeved, $15/ short sleeved $8), water bottles ($5) and tumblers ($5) will be on sale throughout the year. Contact one of your CMBSA representatives to make a purchase.
2. Mark your calendars now!!! CMBSA will be hosting a Pizza Party at Krazy Karl's on Elizabeth the evening after the first Molecular Genetics exam (Wednesday, Sept. 20th) significant others are welcome, **pizza will be provided by CMBSA**.
3. CMB Co-Ed Flag Football Team August 22nd-28th Options for a 4 week league include Su/M/Tu/W/Th/F. If interested contact Hailey Sedam (hailey.conover@colostate.edu), if enough people are interested to form a team we will decide on date and time as a group.

2017-2018 CMBSA Officers

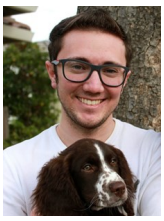
Hailey Conover Sedam– President



Katy McIntyre– Vice President



Dawn Hajdu- Secretary



Dayton Pierce- Treasurer

Rocky Mountain Virology Club

When: Sept 22-24 2017

Where: CSU Mountain Campus

What: 17th Annual Meeting with Keynote Speaker, Eva Harris from UC-Berkeley

Website: http://www.rockymountainvirologyclub.org/ Welcome.html

CU Boulder RNA Club

What: Monthly meeting for Front Range RNA Scientists to discuss the latest and greatest research in the field of RNA biology.

When: Contact Carol Wilusz for dates

Where: CU Boulder East Campus

National Data Integrity Conference

What: National conference to discuss proper data management and analysis

When: October 5-6, 2017

Where: Colorado State University, Lory Student Center North Ballroom

Website: http://www.ndicannual.com/

Fall 2017 Seminars:

Cell and Molecular Biology Seminar Series:

* Held Thursdays at 12:00 p.m. (noon) in the Molecular and Radiological Biosciences Building, Room 312. For more information, please contact Charlene Spencer

Cell and Molecular Biology Graduate Seminar Series:

* Graduate Research Seminars are held Thursdays at 2pm in the Molecular and Radiological Biosciences Building, Room 123. For more information, please contact Dr. Howard Liber Howard.Liber@colostate.edu

Microbiology, Immunology, and Pathology Seminar Series:
For more information, visit the MIP seminar series page

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 Newsletter Writers and Editors:

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Faculty Editor: Carol Wilusz