



# Science Initiative News

Fall 2020

## PROGRAM UPDATES

LAMP launches [a new active learning spectrum website](#) that is open to all users and provides guidance for implementing nearly 50 different active modalities in face-to-face, online and blended learning environments. Research by seven distinguished LAMP educators in a small learning community was accepted for presentation at the Original Lilly Conference, to be held in the Fall of 2021. Eighteen LAMP LAs will support instructors this fall in integrating active modalities into their courses. Three of these LAs worked all summer, Zooming into summer middle-school classes to facilitate learning and developing [virtual outreach materials](#). These outreach LAs will continue their work throughout the academic year.

**The SI Roadshow** has gone virtual to help K-12 educators and community members across the state. We have created interactive videos that teachers and students can use to learn about different topics and we have included standards that the activities link with. As we move forward this school year we have created a [survey](#) that teachers and community educators can complete to have the SI Roadshow collaborate and create virtual and in-person active learning strategies that link to specific standards and student curiosity.

**The Wyoming Research Scholars Program** has grown to 61 scholars for 2020-21, representing the largest group of scholars to date, and steady, positive growth in the program since our initial cohort of four students in 2015. Despite the pandemic, our program continues to support rich, immersive research experiences with UW faculty mentors, while helping students to

adapt their projects to meet safety standards. WRSP students are important ambassadors for undergraduate research at UW, sharing their experiences with communities around Wyoming. Student outreach is continuing this fall via remote programming, such as the SI Virtual Roadshow. In addition, the WRSP will hold its first Virtual Research Symposium in November.

## IMPORTANT DATES

- [Applications](#) for the LAMP Fellows program are due on November 1st. Programming for accepted fellows will be offered for over a year; these educators will begin training during a weeklong retreat from May 24-29. Beginning September 18th, LAMP will also offer Zoom Coffee and Curriculum sessions on select Friday mornings from 8am-9:15am.
- The [nomination form](#) for featured LAMP Fellows is open and we invite you to consider nominating a featured LAMP fellow!
- WRSP will be hosting a Virtual Symposium Nov 13-14. In addition, the WRSP seminar provides professional development trainings for new students in the program throughout the fall semester.

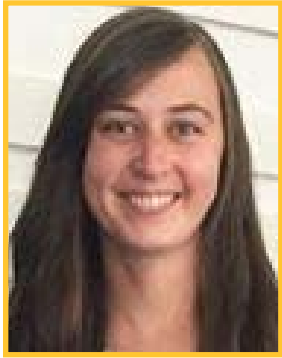
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## WELCOMING DR. KARAGH BRUMMOND TO THE SI TEAM



We are very excited to welcome Dr. Karagh Brummond to the SI team! She will serve as our Director for Outreach and Engagement.

Dr. Brummond shares:

“I received my B.S. in Neuroscience (Honors) from Regis University in Denver and a PhD in Neuroscience from the University of Wyoming. My PhD research focused on the neuronal control and encoding of speech using

songbirds as an animal model and my post-doctoral work was focused on reproductive neuroendocrinology. I have taught courses in physiology as well as for the honors college and love sharing my passion for science and research with K-12 students throughout the state of Wyoming. I also volunteer for the Alzheimer’s Association Wyoming Chapter and enjoy hiking and camping. Just this past summer (2019) I was able to fly to Nepal and hike to the base camp of Mount Everest and it was a life changing experience! I am extremely excited to be joining the SI team and look forward to expanding and enhancing connections throughout the state and teaching at the undergraduate level.”

## COURSE-BASED UNDERGRADUATE RESEARCH EXPERIENCES (CUREs)

This year we will begin offering a 3-semester CURE sequence. The first course has begun this fall as a First Year Seminar (FYS) focused on ecological research. This is a face-to-face class where students are conducting projects at the interface of aquatic and terrestrial ecosystems. Students who complete this course can continue in a class taught by Dr. Karagh Brummond in Spring of 2021 that will be focused on continuing their field research from the first semester and working on scientific writing and communication. In Fall 2021, the students can finish their projects in a COM2 course focused on oral communication of science. We are also planning to introduce an FYS in Summer/Fall 2021 that will include some coursework at the UW-NPS field station in Grand Teton National Park. This means first-year students will have the exciting and unique opportunity to do hands-on ecological research in the Greater Yellowstone Ecosystem as part of their freshman experience.

## ACTIVE LEARNING TRAINING DECREASES DWF RATES IN LIFE 1010

The SI analyzed final grades for students taking LIFE 1010 from Fall 2016 - Spring 2020 to determine whether active learning training for faculty teaching the course has had an effect on student success. The analysis found a significant difference in DWF rates between sections of the course taught by instructors with no active learning training (43% DWF rate) and those sections taught by instructors with active learning training (33% DWF rate). The analysis also found a significant decrease in DWF rates for instructors trained in active learning, before and after their training (4% decrease). For more information, see our [report](#).

## PEOPLE IN SI



### WRSP Scholar

#### Tanner Warder

**Hometown:** Sheridan, WY  
**Major:** Wildlife Fisheries & Biology & Management

**Faculty Mentor:** Matthew Kauffman

Tanner is researching Wyoming’s Red Desert to Hoback mule deer migration, which takes place every spring and fall. Some of these ungulates travel nearly 150 miles between their summer and winter range, and Tanner is assessing their interactions with fences and other barriers along their migration corridor using trail cameras.



### LAMP Learning Assistant

#### Mercedes Fermelia

**Hometown:** Cheyenne, WY  
**Majors:** Microbiology, Physiology

Mercedes was one of a small handful of students to join the LA program in its inaugural semester. Since that time, Mercedes has been an LA for Microbiology, Physics, the Active Learning Best Practices course and Science Roadshow Outreach. This summer Mercedes created outreach materials that integrate science and art. Mercedes has also collected, compiled, and presented assessment data for both LAMP and Roadshow. Mercedes is a consummate leader, teacher, and educational researcher.



### LAMP Fellow

#### JJ Shinker - Professor, Geography

Our featured LAMP Fellow was nominated by Dr. Christine Boggs of the ECTL. Dr. Boggs writes: “At the end of emergency remote teaching in spring semester it was clear that fall would not be an average fall and that desperate plans for assisting faculty with making their courses resilient to changes in delivery were necessary...We sent out a call for faculty mentors to help us throughout the summer and 25 intrepid faculty signed on. JJ was one of those... she jumped into the experience of first being a student in the class that we would provide to over 350 faculty during the summer. She dove in, learned more than I would have thought possible, and then proceeded to be one of our most effective and enthusiastic mentors! In the end she has been a Super Mentor and has become a master of resilient teaching that supports her department, colleagues, students, and UW and beyond!”