

Bio-logue

Fall 2017 Alumni Newsletter



UNIVERSITY OF COLORADO DENVER
DEPARTMENT OF INTEGRATIVE BIOLOGY



Dear Alumni and Friends,

The 2017 Fall Semester was a busy one for the Department. Our department continues to advance the research mission of CU Denver. Our faculty and graduate students traveled nationally and internationally to speak at conferences and present their research. But the highlight of the past semester are the efforts our department is making to improve the educational experience for all students on our campus. The CU Denver College of Liberal Arts and Sciences was one of 24 institutions to receive an Inclusive Excellence Initiative grant from the Howard Hughes Medical Institute (HHMI). As part of this grant, we will be working to transform our introductory courses and laboratory experiences in a way that will better serve all students on our campus. We are pleased to have been recognized by HHMI for our efforts to revise our curriculum and our approach to teaching in a way that best serves our student population and their support will help us make the needed changes.

We'd like to share all the details of the Fall Semester with you below and we'd also like to hear from you, your professional accomplishments and milestones and share these in future newsletters. If you have news to share please email, jacki.craig@ucdenver.edu.

All my best,



John Swallow, Ph.D.
Professor and Chair
CLAS.UCDENVER.EDU/BIOLOGY

CLAS SPOTLIGHT

CU Denver Receives Million Dollar HHMI Diversity Grant

The Howard Hughes Medical Institute (HHMI) recently selected 24 schools in the first round of the Inclusive Excellence initiative. This program aims to help increase the capacity of colleges and universities to effectively engage all students so that they can be successful in science, especially undergraduates who enter four-year institutions via nontraditional pathways. The money will be spent to teach faculty inclusive teaching practices, commit to culturally competent and identity-conscious communication, revise introductory curricula, and incorporate early research experiences. More information on the grant can be found [here](#).

“here” hyperlink address: (<http://www.hhmi.org/news/24-institutions-commit-diversity-and-inclusion-through-2017-hhmi-inclusive-excellence>)

FACULTY NEWS

Tomback continues as go-to on whitebark pine

On September 20, in the town of Jasper (in Jasper National Park, Alberta) [Diana F. Tomback](#), Professor of Integrative Biology, presented an evening talk to the public on the importance of whitebark pine, a widely-distributed high elevation tree in the Rocky Mountains; the role of its seed disperser Clark’s Nutcracker, a bird related to crows and ravens; factors causing the decline of whitebark pine; and restoration approaches. The talk was sponsored by Parks Canada.

Diana’s hyperlink: <https://clas.ucdenver.edu/directory/faculty-staff/Diana-F-Tomback>

Phiel on ethics of new human embryo gene edits

[Christopher Phiel](#), Assistant Professor of Integrated Biology, explains the scientific breakthrough discussed in a new study in the journal of *Nature* and the ethics behind it.

Scientist Edit Human Embryo Gene

Fox 31, August 3

Chris’ hyperlink: <https://clas.ucdenver.edu/directory/faculty-staff/Christopher-J-Phiel>

Roane receives NSF funding for INCLUDES project

Associate Professor [Timberley Roane](#) has received funding from the National Science Foundation for the project [Building a Network for Education and Employment in Environmental Stewardship of Indigenous Lands](#). This project will foster recruitment, training, and employment for indigenous STEM students, where the term “indigenous” comprises the terms Native American, American Indian, Alaskan Native, and Hawaiian Native. Specifically, this project will support the design and development of a first-of-its-kind network focused on environmental stewardship of indigenous lands. The funds come from the NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) Initiative. This marks the second year of awards for INCLUDES, one of NSF’s [“10 Big Ideas for Future NSF Investments.”](#)

Timberley’s hyperlink: <https://clas.ucdenver.edu/directory/faculty-staff/Timberley%20Roane>

STUDENT TRAVEL AWARDS

Andrew Boddicker, M.S. Graduate student advised by Annika Mosier, received a travel award from the Department of Integrative Biology to attend the American Society for Microbiology’s international meeting,

Microbe, in New Orleans, LA. He presented a poster at the meeting on his research involving the cultivation and whole-genome sequencing of novel nitrite-oxidizing bacteria. Boddicker was additionally awarded a competitive travel grant from the Rocky Mountain Branch of the American Society for Microbiology to attend the meeting this June.

Andrew McDevitt, Ph.D. student advised by Laurel Hartley, received a travel award from the Department of Integrative Biology and recently attended the 2017 national meeting for the Society for the Advancement of Biology Education Research (SABER) Symposium in Minneapolis, Minnesota. At SABER, he presented a poster about improving undergraduate research experiences entitled “Promoting inclusion in STEM fields through REU programs: An evaluation of common program assessment techniques”. McDevitt’s research critically examined common program assessments and proposed a framework that situates assessments in a more educationally meaningful context which will hopefully improve dialogue among these interdisciplinary programs. This poster was an abridged version of McDevitt’s most recent manuscript entitled “[Three Decades as an NSF REU Site: Lessons and Recommendations](#)” which is currently under review.

Ryan Parker - M.S. Graduate student advised by Dr. Mike Wunder, received a travel award from the Department of Integrative Biology to attend the 2017 National Wildlife Society (TWS) conference, in Albuquerque, NM. Ryan presented a poster on his research investigating impacts on occupancy of three prairie dog (*Cynomys* sp.)-associated species: Mountain Plover (*Charadrius montanus*), Burrowing Owl (*Athene cunicularia*), and Swift Fox (*Vulpes velox*). This is the first chapter of Ryan’s thesis work, stemming from trend data collected by the US Forest Service that displays patterns suggesting a trophic interaction.

Paul Le - Ph.D. candidate advised by Dr. Laurel Hartley, received a travel award from the Department of Integrative Biology to attend the 2017 Society of Advancement of Biology Education Research annual conference in Minneapolis, MN. Paul presented a poster describing differences in network metrics in Learning Assistant (LA) and non-LA supported courses and models that predicted student success in introductory biology courses.

Kelsey Foster – Graduate student advised by Dr. Timberley Roane, received a travel award from the Department of Integrative Biology to attend the American Society for Microbiology’s international meeting, Microbe, in New Orleans, LA. Kelsey presented a poster at the meeting on her research involving the taxonomic characterization and metabolic profiling of microorganisms within the sediment of the Chattanooga fen. Andrew was additionally awarded a competitive travel grant from the American Society for Microbiology to attend the meeting this June.

Jared Mastin, M.S. Graduate student advised by Dr. Leo Bruederle, received a travel award from the Department of Integrative Biology to attend the Botany 2017 international conference, in Ft. Worth, TX. Jared was additionally awarded a travel grant from the American Society of Plant Taxonomists to attend the meeting this June. Jared gave a presentation at the meeting on his research describing the ecological and evolutionary implications of polyploidy for an arctic-alpine plant. Jared’s research highlights evidence for a hybrid origin of the species as well as the utility of herbarium records for niche modeling polyploid cytotypes.

David Schutt, M.S. Graduate student and co-advised by Dr. Alan Vajda and Dr. Mike Wunder, received a travel award from the Dept. of Integrative Biology and recently attended the Scientific Committee on Antarctic Research (SCAR) Biology Symposium in Leuven, Belgium where he presented a poster on his thesis project. David's work on the extent of mercury exposure in penguins was highlighted in his poster which also incorporated a review of the current literature on penguin mercury studies throughout all of Antarctica and the sub-Antarctic islands.

Benjamin Lagasse, M.S. student advised by Mike Wunder, received a travel award from the Department of Integrative Biology to attend the Western Hemisphere Shorebird Group Meeting (WHSG) in Paracas, Peru. While attending WHSG, he gave an oral presentation detailing a method for prioritizing landscape conservation using annual tracking data from a population of Dunlin tagged in 2010 and 2016. Generally, this presentation emphasized the need to implement local conservation actions that work collectively to safeguard all critical links within the chain of habitats that facilitate continental migrations.

Lamya'a Dawud, PhD Graduate Student advised by Dr. Sondra Bland, received travel awards from the Department of Integrative Biology and CLAS to attend the Society for Neuroscience 2017 annual meeting in Washington, D.C. Lamya'a presented a poster titled, "Fear conditioning with a social cue in differentially housed adolescent rats: effects on social and aggressive behaviors" at the meeting describing a novel model of social fear conditioning. Co-authors for this poster presentation were: Esteban Loetz, Elizabeth Hoeffken, Brian Lloyd, Rachel Beam, Kim Cowie, Tassawwar Khan, Dr. Benjamin Greenwood, and Dr. Sondra Bland.

For information about donating, please go to:

<https://giving.cu.edu/about-us/university-colorado-foundation> and designate your gift for scholarships, Department of Integrative Biology, CU Denver.