

CAMPUS REPORT

DATE: May 3, 2017
TO: Board of Regents
FROM: Donald M. Blackketter, Chancellor, Montana Tech
RE: Campus Report for the May 25, 2017 Board of Regents Meeting

STUDENT ACHIEVEMENT

- Jordan Foster, Chemistry and Geochemistry Undergraduate Research Program student in the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) presented a talk entitled "**Geochemistry of Rabbit Creek: An Alkaline Deeply Sourced Hot Spring with Abundant Microbial Mats**" at the Montana Academy of Sciences Meeting held at Montana Tech on April 8th.
- Renee Schmidt, MS student in Geochemistry of LEGEND (Chemistry and Geochemistry) presented her poster entitled "**Microbial Communities in Anoxic, Subsurface Mines**" at the Montana Aquatic Research Colloquium (MARC) held at the Flathead Lake Biological Station (FLBS), April 7-9.
- Georgia Dahlquist, MS student in Geochemistry of LEGEND (Chemistry and Geochemistry), presented her poster entitled "**Methanogens and ammonia oxidizers: Mudpots as a high metals, suboxic habitat**" at the MARC, April 7-9.
- James Foltz, MS student in Geochemistry of LEGEND (Chemistry and Geochemistry), presented his poster entitled "**Dual Chamber Sulfate Reducing Bioreactor**" at the MARC, April 7-9.
- Two student athletes from the Montana Tech hockey team, center Joel Johnson and defenseman Douglas Abbott Jr., were selected to represent the nine Mountain West Collegiate Hockey League teams at the American Collegiate Hockey Association DII National All Star Tournament in April. Each of the nineteen leagues in Division II sends a team to this bi-annual tournament. Tourney players will be selected to represent the ACHA Division II in Europe next December to play several pro teams and European University All Star teams. Two Montana Tech players have been selected to skate for the Select team, Conrad Smith in 2013 and Douglas Abbott Jr. in 2015.

FACULTY EFFORTS

- Dr. Courtney Young, Dept Head and Lewis S. Prater Distinguished Professor, will run the ASM High School Teachers Materials Camp this summer, scheduled for July 10-14, 2017. The goal is to get HS Teachers giving lectures and doing demonstrations and labs in their classrooms to promote mineral, metal and materials education, and help recruit students to Montana Tech and Metallurgical & Materials Engineering. The Camp is sponsored by Montana Tech (M&ME Dept and the Institute for Education Opportunities) and two Montana companies (Barrick Gold in Whitehall and American ChemMet in East Helena).
- Chris Danielson, associate professor of history in Montana Tech's Liberal Studies Department, has been awarded the MEA-MFT 2017 Faculty Member of the Year at the 2017 annual MEA-MFT Representative Assembly in Helena on March 31. The award is given for excellence in teaching. Danielson currently serves as president of the Montana Tech Faculty Association.
- Dr. Courtney Young is hosting a Short Course on Flotation on April 29 and will be attended by students and industrial representatives from sponsoring companies that use the technology for their processes (Montana Resources in Butte, Stillwater Mining near Big Timber and Nye, Minerals Technologies in Dillon, and Hecla Mining in the Silver Valley from Mulan to Wallace, ID). Their generous support is also matched by presenters from FLSmidth and Westech out of SLC and Nalco in Houston, and will additionally be used for an SME Montana Section meeting, gathering for the first time in over 5 years.
- Beverly Hartline, Vice Chancellor for Research and Dean of the Graduate School, was elected to a 3-year term as Councilor of the At-Large Division of the Council on Undergraduate Research (CUR).
- Dr. Alysia Cox, Assistant Professor of the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) in the Department of Chemistry and Geochemistry gave an oral presentation entitled "**Aquatic Habitats from Hot Springs to Silver Bow Creek**" at the Montana Aquatic Research Colloquium (MARC) held at the Flathead Lake Biological Station (FLBS), April 7-9. Renee Schmidt, Georgia Dahlquist, Jordan Foster, McKenzie Dillard, Shanna Law, Mallory Nelson, Cynthia Cree, and James Foltz were Tech student coauthors.

- Dr. Alysia Cox, Assistant Professor, LEGEND, Chemistry and Geochemistry gave an invited presentation entitled "**How healthy is our ecosystem? Check the microbes and geochemistry!**" at the Citizens Technical Environmental Committee (CTEC) Meeting, April 13th. Renee Schmidt, Jordan Foster, and Georgia Dahlquist were Tech student coauthors.
- Dr. Henrietta Shirk, Professor in the Writing Program, will presenting a paper entitled "**The Exclusionary Nature of Naming Nature: The Nineteenth-Century Botany Gender Divide**" at the 2017 Berkshire Conference on the History of Women, Genders and Sexualities, June 1 - June 4, 2017, Hofstra University, Hempstead, New York.
- Matthew Haines, adjunct instructor, was recently named 1 of 12 Lambda Literary Fiction Fellows of 2017, an international organization. He will travel to Los Angeles in late summer to work with other fiction writers and filmmakers and give a reading in downtown L.A.
- Dr. Robert Pal, Assistant Professor, Biological Science published a peer-reviewed paper in the Journal of Plant Ecology in an international collaboration (authors: Dávid U Nagy, Szilvia Stranczinger, Aliz Godi, Anett Weisz, Christoph Rosche, Jan Suda, Mark Mariano, Robert W Pal), entitled: **Does higher ploidy level increase - the risk of invasion? A case study with two geo-cytotypes of Solidago gigantea Aiton (Asteraceae)**. Montana Tech grad student Mark Mariano is a co-author.
- Dr. Robert Pal, in collaboration with UM faculty Dr. Ben Colman and grad student Scott Robinson, won a DNRC grant worth \$40,041. The project is entitled: **Comprehensive Remediation of Heavy Metal and Arsenic Contaminated Soil**.
- Dr. Robert Pal, in collaboration with Montana Tech grad student Mark Mariano, won a small grant from the Butte Natural Resource Damage Council worth \$95,747. The project is entitled: **Providing a Continuous Supply of Native Plants for the Restoration of BPSOU in order to improve the water quality in Butte Area One**. With the help of the grant Montana Tech will receive a new greenhouse that will be utilized by the Native Plant Project.
- Dr. Robert Pal, in collaboration with Montana Tech grad student Jared Trilling, won a \$11,170 grant from the Butte Natural Resource Damage Council. The project is entitled: **The Relationship Between Site Contamination and Native Plant Success in Butte, MT: Implications for Future Restoration**.
- Dr. Robert Pal, in collaboration with Montana Tech grad student Joao Nascimento won a small grant from the Butte Natural Resource Damage Council with \$4,900. The project is entitled: **A Restoration Management System for Projects in BAO**.
- John Getty, Instructor in Geophysical Engineering, has been named chair of the ASTM D18.26 subcommittee on Hydraulic Fracturing. His charge includes leading five task groups: Site Investigation and Monitoring, Site Infrastructure and Construction, Materials Characterization, Reporting and Terminology. He is currently serving as technical lead for two new D18.26 standards under consideration by the ASTM.

CAMPUS HAPPENINGS

- The Montana Tech Nursing Department and the HealthCARE MT grant will be hosting an Integrating Simulation in Nursing Education Conference at Montana Tech May 16th and May 17th. Participants will eligible to receive up to 9.25 continuing education contact hours through the Montana State Board of Nursing. Over 100 participants are registered. Lieutenant Governor Mike Cooney is a keynote speaker at the banquet. One of the four new Sim Trucks will be on display in the Montana Tech Mall area. Janet Willhaus, PhD, RN CHSE, Assistant Professor from Boise State University will be the keynote speaker to open the conference. An evening networking session will be held at Butte Brewing Co.

MONTANA BUREAU OF MINES AND GEOLOGY ACTIVITY

- MBMG Hydrogeologist Dr. Gary Icopini gave a Berkeley Pit tour and a presentation on the history of the Butte Superfund Sites to the Brigham Young University Geochemistry and Environmental Geology classes during their field trip to Butte, Montana, on March 7, 2017.
- Ground Water Investigations Program hydrogeologist, Kirk Warren, presented **Ground and surface water response to changing irrigation practices—a Bitterroot Valley case study** at the Montana Tech Public Lecture Series in Butte, Montana, on March 9, 2017.
- MBMG Director of Earthquake Studies Michael Stickney was invited to speak to the University of Montana Geosciences Department on **35 years of seismic monitoring in western Montana, insights and questions**. Missoula, Montana, on April 3, 2017.
- Ground Water Investigations Program Leader Ginette Abdo updated attendees at the Gallatin Valley Spring Water Meeting in Bozeman, Montana, about Ground Water Investigation Program projects and the influence of irrigation on groundwater. The presentation was April 12, 2017.

- MBMG Director of Earthquake Studies Michael Stickney discussed **Seismic Network Operations and Earthquakes Studies in Montana** with Dr. David Lageson's geology class during a field trip to the Earthquake Studies Office on April 15, 2017.
- MBMG Geologist Dr. Kaleb Scarberry presented **The Lowland Creek Volcanic Field of Western Montana: Eocene ignimbrite flare-up in the U.S. Cordillera** to a Montana State University geology seminar in Bozeman, Montana, on April 16, 2017.
- Montana Bureau of Mining and Geology publications this period included: Scarberry, K.C. and Elliott, C.G., 2016, **Geologic Map of the Opportunity 7.5' quadrangle, Deer Lodge and Silver Bow Counties, MT**: Montana Bureau of Mines and Geology Open-File Report-683.
- Mike Richter and John LaFave, hydrogeologists with the Ground Water Assessment Program, presented **Groundwater conditions of the Upper Madison Valley** to a Madison Watershed Planning meeting hosted by the Madison County Conservation District in Ennis, Montana, on April 26, 2017.
- Ground Water Investigations Program Leader Ginette Abdo and MBMG hydrogeologists Todd Mysse, Dean Snyder, and Kirk Waren presented **Hamilton-Corvallis-Stevensville aquifer properties and flow scenarios; aquifer recharge and storage** to the UM-Bitterroot College Water Symposium in Hamilton, Montana, on April 28, 2017.
- Director and State Geologist Dr. John Metesh reappointed Ground Water Investigations Program Hydrogeologist Kirk Waren to a new term on the Montana Board of Water Well Contractors. The term will expire in 2020.
- The Montana Bureau of Mines and Geology released Open-File Report 688: **Hydrogeologic investigation of the Boulder Valley, Jefferson County, Montana: Groundwater Modeling Report** by Julie Butler and Andrew Bobst; Open-File Report 689: **Geologic map of the Helena Valley, west-central Montana** by Michael Stickney and Susan Vuke; and Information Pamphlet 11: **Groundwater quality in the Shields River Basin of south-central Montana: Assessment of oil and gas drilling impacts and baseline conditions** by Daniel Blythe.