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## October 2020 news releases

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UM's Gallagher Business Building houses the College of Business.



UM graduate Lily Clarke captured the top prize for her High Morel business idea during the 31st annual John Ruffatto Business Startup Challenge.

**MISSOULA** – Female students with startup ideas ranging from mushrooms to smart-phone apps were the biggest winners at the 31st annual John Ruffatto Business Startup Challenge earlier this month at the University of Montana.

Postponed from March due to COVID-19, the rescheduled competition featured fresh, innovative business ideas from college students across Montana. The winners of the 2020 event were announced at the live virtual public event, with over \$50,000 being awarded to competitors.

JRBSC is hosted by the UM College of Business and UM Blackstone LaunchPad. Started in 1989, the startup challenge is one of the UM's premier student competitions. As the only statewide student startup competition, JRBSC provides strong opportunities and exposure for aspiring entrepreneurs. It is supported by title sponsors Ontra Marketing Group, First Interstate Bank, First Security Bank and the Missoula Economic Partnership.

Following a record-setting number of applicants, nine teams were selected by expert judges from around the state to compete online over a two-week period. The nine teams pitched

their business ideas and engaged in Q&A sessions with a panel of judges online, before the final four teams were selected for the live event.

In recent years, the College of Business and Blackstone LaunchPad have sought to address the underrepresentation of female students in the competition, a factor that mirrors women's reduced participation in entrepreneurship nationally. In 2015, UM Regents Professor of Marketing Jakki Mohr initiated the Pursue Your Passion program to encourage female students to explore their interests and consider the potential for starting a business.

JRBSC also added the Athena Award to recognize the team with the most notable female participation. The results of these efforts were on clear display at this year's competition, with the nine teams having a 50/50 female-to-male ratio, and the final four teams selected had seven women and two men.

"It's tremendous to see women not just competing but being recognized for the quality of their ideas and their ability to pitch those ideas in a compelling way to a diverse group of judges," Mohr said.

The Pursue Your Passion program has grown under the leadership of Morgan Slemberger, UM's director of women's entrepreneurship and leadership, who has greatly increased the level of interest and engagement of female students in entrepreneurship.

"This competition demonstrates that when we provide women with a safe environment to say their ideas out loud, they can and will succeed," Slemberger said.

The final four teams and students were:

- **Gallatin Visual Media** Erinn Hermsen and Nate Kenney. Gallatin Visual Media is a science communication production company that helps university professors communicate their research and its impacts to the public through film and photography in a way that creates a personal connection and spurs support and action.
- High Morel Lily Clarke. High Morel alleviates costs and accessibility to wastewater treatment for breweries by using mushrooms to remediate brewery wastewater.
- SporeAttic Benjamin Deuling and Ali Moxley. SporeAttic is a commercial gourmet mushroom farm in the process of starting up in Bozeman.

Will Care – Kimberly Rogers, Jennifer King, Susan Tangmo and Vanessa Fiore. Will Care
provides easy-to-understand, step-by-step video instructions that enable the customer to
create a legal, dynamic will that tells a story by adding personalized photos or videos around
assets.

At the live event, the four student teams pitched their business ideas and plans live to fellow students, community members and a panel of judges. Each team was allotted 10 minutes to present before a quick Q&A session with the judges and audience members. The judges then voted electronically to select the top team.

In the end, Lily Clarke, who graduated from UM with a Master in Systems Ecology earlier this year, and her business High Morel, took home the top prize of \$15,000.

Teams SporeAttic and Gallatin Visual Media tied for the second spot, and each was awarded \$6,250. The team of Will Care, featuring two UM College of Business MBA graduates, earned \$2,500 for fourth place.

"As a scientist without prior business experience, it is wonderful to win this competition," Clarke said. "I have received an incredible amount of encouragement and support from the Blackstone LaunchPad and community mentors, including Jenn Ewan, who helped me see the potential to transfer my scientific knowledge and ideas into a business that can positively impact our environment and communities."

In addition to the final round prizes to the top four, there were a number of special awards given out among the top nine competitors. These include the Public Choice Award and Elevator Pitch Award, which were voted on by the public. All prize money for the competition is generously contributed by businesses, organizations and individuals committed to the future of entrepreneurship in Montana.

The special awards sent to:

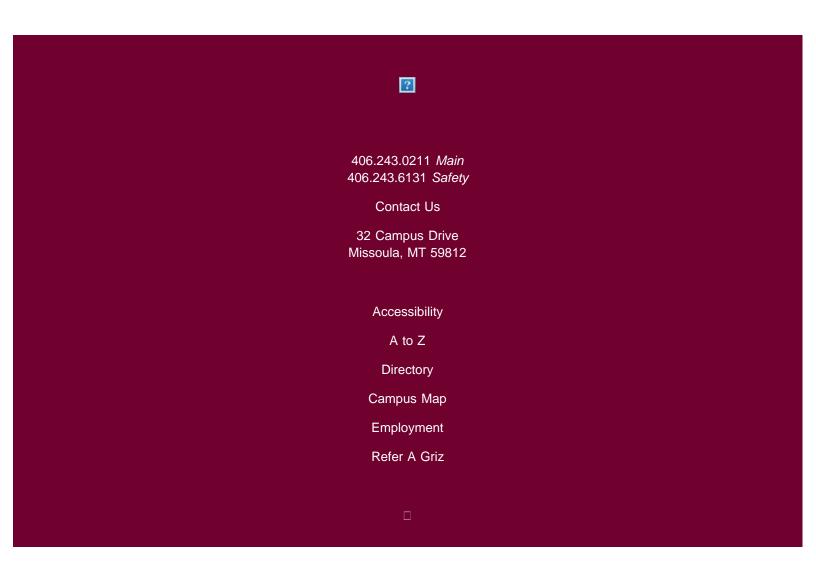
- People's Choice Award: SporeAttic (\$3,500)
- Best Elevator Pitch: Counterbalance (\$3,500)
- Most Innovative: Legitimizer (\$1,500)

- Intent to Launch: SporeAttic (\$1,000)
- Brandon Speth Award for Charisma, Passion & Poise: Joaquin Monterrosa Legitimizer (\$500) and Charles Luther – Red Patch Outdoors (\$500)
- Athena Award: Lily Clarke High Morel (\$1,000)

For more information on the competition, winners and sponsors, visit the startup challenge website at https://www.umt.edu/startup/.

###

**Contact:** Paul Gladen, director of UM Accelerate Montana and Blackstone LaunchPad, 406-396-3534, paul.gladen@umontana.edu.



Female Students Shine in UM's Annual Business Startup Competition
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**MISSOULA** – The coronavirus canned college football across Montana this fall, but the Can the Cats food and donation drive to benefit area charities will carry on in 2020.

Now in its 21st year, the annual food drive will run Nov. 6-20. Can the Cats pits the University of Montana against Montana State to see which school can donate the most canned-food

items to those in need. In past years, the competition was held in conjunction with the Griz-Cat rivalry football game.

"While we greatly miss our football games – and especially our players – this year the Missoula Food Bank & Community Center and the UM Food Pantry have partnered with Grizzly eSports and many other campus departments to creatively adapt our Can the Cats food and donation drive," said Hilary Rosa, a UM food pantry VISTA worker. "There will still be plenty of fun ways to participate, compete and contribute to the greater Missoula community."

After Can the Cats kicks off on Friday, Nov. 6, the Grizzly eSports team will sponsor a series of competitive events on its streaming platform, which will include a fundraising portal. All money raised while streaming will benefit the Missoula Food Bank & Community Center. Special events will include a Can the Cats Amateur Invitational, in which corporate, student and community groups can form teams and compete in head-to-head competition over two days on Saturday and Sunday, Nov. 7-8. Register for the Amateur Invitational online.

Instead of football, UM and MSU will compete via video games this year. On Saturday, Nov. 14, the Grizzly eSports League of Legends team will take on an MSU team for the Grizzly eSports Brawl of the Wild crown. Visit https://www.twitch.tv/grizzlyesportsum to livestream all UM eSports events during Can the Cats!

Folks wanting to make cash donations to the Missoula Food Bank can do so at every UM Campus Dining location. All registers will be programmed to accept dining plan funds, flex dollars, Bear Bucks, UMoney, cash, credit and debit from anyone who wants to participate. Generous people can also donate online at canthecats.com.

UM Greek Life will oversee a contactless food drive in the University District on Sunday, Nov. 15.

Additionally, donation bins will be placed in all UM residence halls, the University Center Game Room, and other locations across campus and the Missoula community during Can the Cats.

All physical food collected on campus will be donated to the UM Food Pantry, which needs volunteers to help promote the drive, monitor bins and collect donations. Sign up online to help with Can the Cats, and follow all Can the Cat activities on Facebook at

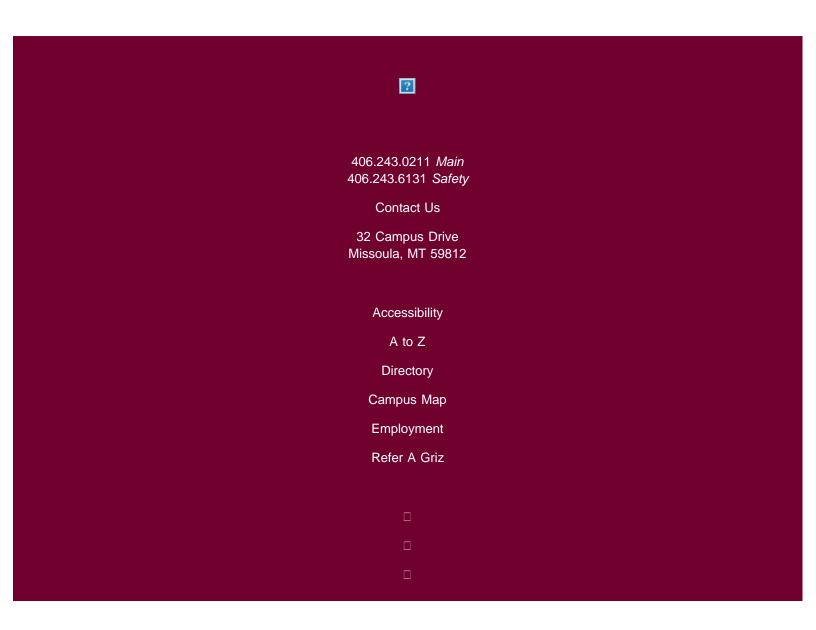
https://www.facebook.com/CantheCats/.

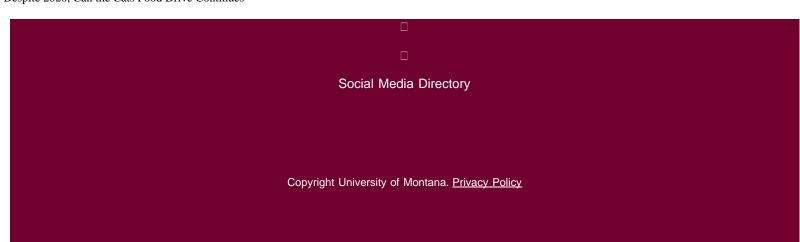
Fundraising and collections will end at 7:30 pm sharp on Friday, Nov. 20.

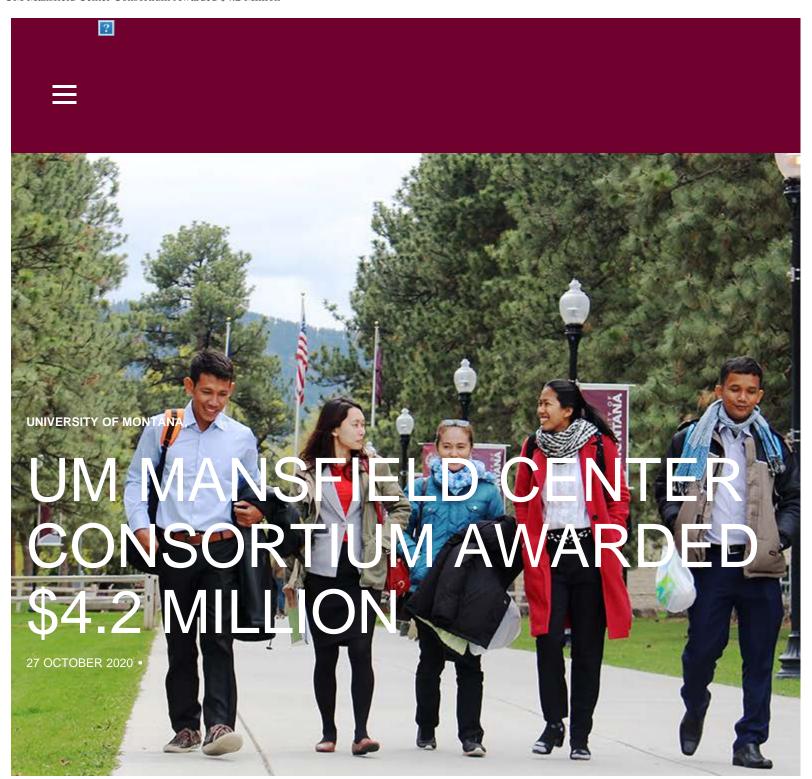
"We are excited to see what our UM community can pull off during these unconventional times," Rosa said. "Go Griz!"

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**Contact**: Hilary Rosa, UM Food Pantry and MTCC AmeriCorps VISTA worker, 406-243-5125, rosa@mtcompact.org; Amanda Ceaser, events and marketing coordinator, Missoula Food Bank & Community Center, 406-549-0543 ext. 214, amanda@missoulafoodbank.org.







Past participants of the Young Southeast Asian Leaders Initiative Professional Fellows Program enjoy their Montana experience at UM.

**MISSOULA** – The University of Montana's Maureen and Mike Mansfield Center, together with three U.S. partners, recently was awarded a joint \$4.2 million grant from the U.S. Department of State Bureau of Educational and Cultural Affairs to support international civic engagement

efforts.

The Young Southeast Asian Leaders Initiative (YSEALI) Professional Fellows Program will offer 200 emerging leaders from 11 countries in Southeast Asia a rigorous professional development and leadership exchange program focusing on civic engagement, economic empowerment, governance and society, and sustainable development and the environment. It also will support 50 U.S. fellows in a reciprocal travel program.

The consortium is led by the Washington, D.C.-based American Councils for International Education and includes two other D.C.-based organizations, the American Council of Young Political Leaders and the International City/County Management Association.

Building on the legacy of Mike Mansfield to foster mutual understanding and ethical public policy and leadership, the Mansfield Center's program focuses on civic engagement. Southeast Asian Professional Fellows will partner with experts throughout Montana to exchange knowledge and best practices during a month-long fellowship.

The Mansfield Center has managed Professional Fellows Programs since 2011. During that time, the center has brought more than 200 young Southeast Asian leaders to Montana to collaborate with professionals from Missoula to Whitehall. Many of these Montana leaders traveled in exchange to Southeast Asia to build on the partnership and develop their expertise in cross-cultural communication and global engagement.

"In a state whose population regards international engagement as a unique and necessary activity, UM is known as a leader in supporting Montanans to better compete in a global economy," said Deena Mansour, the center's executive director. "The Mansfield Center is honored to continue hosting the YSEALI Professional Fellows Program to support Montanans in fostering global mutual understanding, enhancing leadership skills and building lasting partnerships."

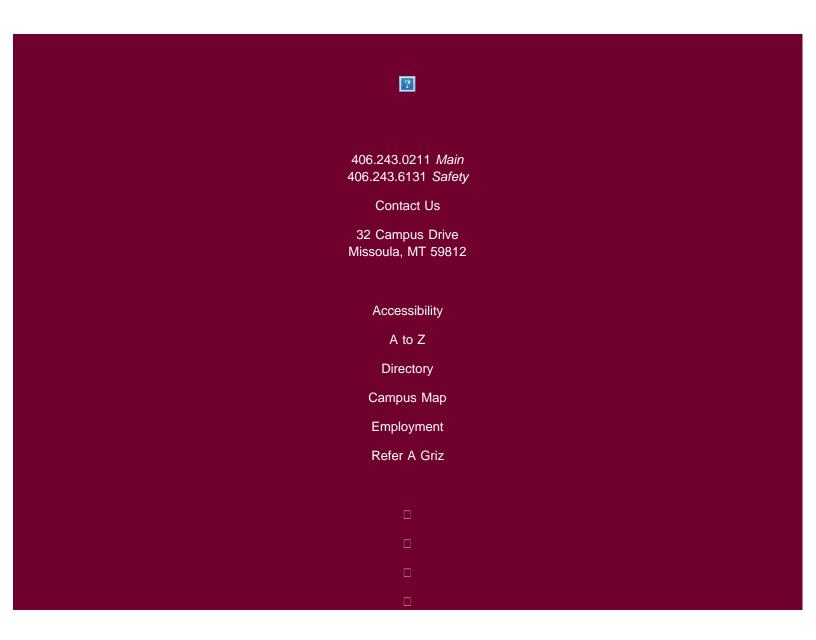
Launched in 2013, the YSEALI is the U.S. government's signature program to strengthen leadership and networking in Southeast Asia, preparing young leaders in the region to solve regional and global challenges through cross-border collaboration. The program represents a critical investment by the U.S. to strengthen its strategic partnerships with the Association of Southeast Asian Nations members, as well as the nation of Timor-Leste, in support of a free and open Indo-Pacific.

Created by an Act of Congress in 1983, the Mansfield Center fosters globally minded leaders of integrity through a dual mission dedicated to supporting ethical public policy and leadership, as well as mutual understanding between the U.S. and Asia. The center serves as an essential component of Montana's economic and civic life by fostering dialogue on issues facing the U.S., Asia and the world.

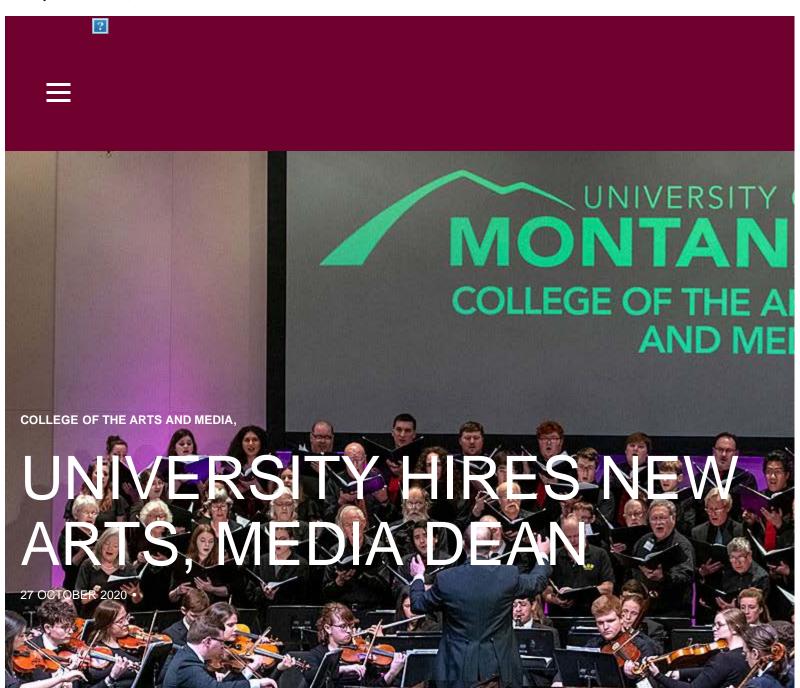
For more information, email Kelsey Stamm Jimenez at kelsey.stamm@umontana.edu.

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**Contact:** Deena Mansour, executive director, UM Maureen and Mike Mansfield Center, 406-243-2713, deena.mansour@umontana.edu.









Laurie Baefsky

**MISSOULA** – The University of Montana has hired an individual committed to the critical roles played by art and design in creating healthy, resilient communities as the next dean of the College of the Arts and Media.

Dr. Laurie Baefsky will start her new duties Jan. 1, 2021. She comes to UM from the University of Colorado Denver, where she serves as associate dean of research and strategic partnerships in the College of Arts & Media.

"I'm excited to immerse myself in the vibrant arts scene that defines UM and Missoula," Baefsky said. "The College of the Arts and Media's richly diverse programming offers the ideal blend of deep tradition and generative new invention. In its new formation, CAM is well-positioned to distinguish itself as a leader in creative industries training and opportunities.

"I am inspired by Missoula as a thriving arts and cultural hub, and even more so by the people I've met that make UM such a special destination," she said.

Baefsky holds three degrees in flute performance: a Doctor of Musical Arts from Stony Brook University, a Master of Music from the University of Michigan and a Bachelor of Music from California State University, Fullerton.

Before joining CU Denver in 2018, Baefsky was executive director of the Alliance for the Arts in Research Universities and ArtsEngine at the University of Michigan (2014-18) and grants manager for the Utah Division of Arts & Museums (2014).

Former appointments also include working as the founding director of Utah State University's ArtsBridge program, as well as education director and director of development research with the Virginia Arts Festival.

"Dr. Baefsky comes to UM with a successful track record in traditional and interdisciplinary program development – both inside and outside of academia," said Reed Humphrey, UM acting provost and vice president for academic affairs. "She presented a compelling vision for the future of arts and media throughout the recruitment process, and I am confident her experience in the arts and academia will help her succeed in leading the College of the Arts and Media."

The College of the Arts and Media at UM serves as the flagship institution for the arts in Montana. The college offers a full complement of undergraduate and graduate degrees in art, media arts, music, journalism, theatre and dance, and integrated arts and education.

###

**Contact**: Adrea Lawrence, search committee chair and UM education dean, 406-243-5054, adrea.lawrence@mso.umt.edu.



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## MONTANA FUBLIC RADIO

**MISSOULA** – Listeners donated more than \$274,000 during Montana Public Radio's fall fundraiser that concluded on Oct. 23.

The tally of \$274,011 for the six-day event was over 91% of the \$300,000 goal. There were 2,165 listener pledges during the on-air fundraiser, which ran Oct. 18-23.

"During these uncertain times, one thing continues to be certain – the outstanding support for MTPR by our listeners," said Anne Hosler, MTPR's membership director. "We are honored by their support and promise to create more great radio."

"We are humbled by the support of our MTPR listeners," said Michael Marsolek, MTPR program director. "They have truly made MTPR what it is today with outstanding news, music, information and children's programming."

"Thanks to the all the dedicated listeners for their support during our 55th year," said Ray Ekness, director of the University of Montana Broadcast Media Center.

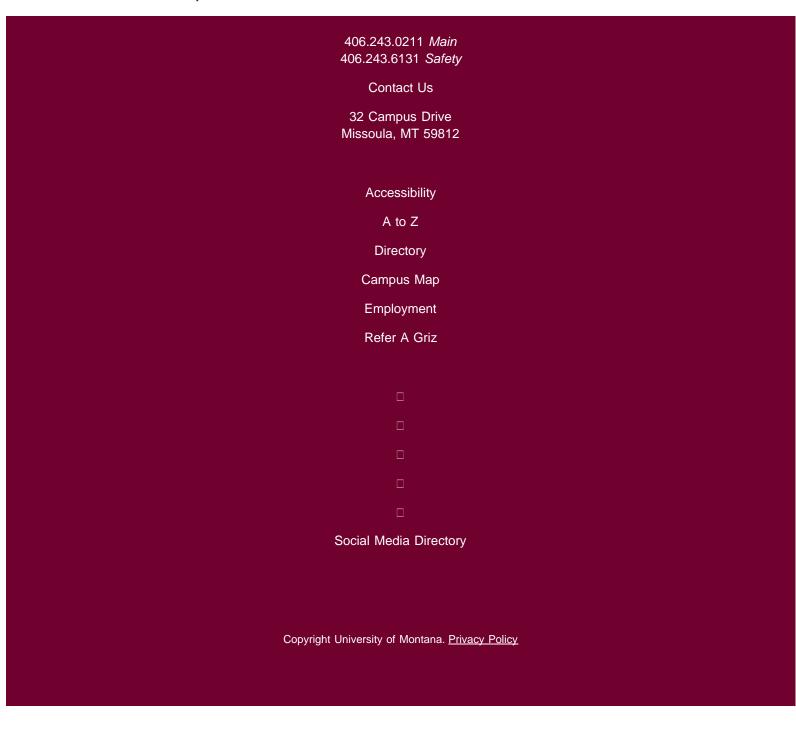
MTPR needs to raise \$2 million – 75% of the station's total operating budget – from listeners and sponsors during its fundraising year. Listeners can continue to contribute online or via the mail if they missed making their pledge of support last week.

Montana Public Radio is a public service of UM and broadcasts on 89.1 Missoula (KUFM); 91.5 Missoula, city (K218AI); 91.9 Hamilton (KUFN); 89.5 Polson (KPJH); 90.1 Kalispell, Whitefish, North Valley (KUKL); 90.5 Libby (KUFL); 91.7 Kalispell, city (K219BN); 101.3 Swan Lake (K267BJ); 91.3 Butte (KAPC); 91.7 Helena (KUHM); 91.7 Dillon (K219DN); and 89.9 Great Falls (KGPR).

Learn more at http://mtpr.org.

###

**Contact:** Anne Hosler, MTPR membership director, 406-243-4214, anne.hosler@umontana.edu; Michael Marsolek, MTPR program director, 406-243-4096, michael.marsolek@umontana.edu; Ray Ekness, Broadcast Media Center director and MTPR general manager, 406-243-4154, ray.ekness@umontana.edu.





Geoff McGhee, an award-winning data visualization and multimedia storyteller, is the UM School of Journalism T. Anthony Pollner Distinguished Professor for spring 2021.

**MISSOULA** – The University of Montana School of Journalism has named Geoff McGhee, award-winning data visualization and multimedia storyteller, the T. Anthony Pollner Distinguished Professor for spring 2021.

McGhee will be in residence, teaching a course titled "The Infographic Story," where students will gather and analyze data to create multimedia, interactive feature stories. He also will work closely with student staff at the Montana Kaimin to bring more data-driven storytelling to the pages of UM's student newspaper.

"I'm excited to be joining a great community at UM and to engage with students on visual storytelling at a time when accurate information, clearly presented, is more important than ever," McGhee said. "The best infographics creators of our era work in free-standing units that drive their own reporting and analysis, and I look forward to exploring how to put that approach to work in the course and with the Kaimin."

The UM School of Journalism consistently ranks among the top journalism schools in the country, with a number of its graduates going on to win top awards and recognitions, including Pulitzer Prizes and Emmys. Its students have access to state-of-art equipment and facilities, and some 94% land jobs after graduating.

McGhee, a veteran of the multimedia and infographics staffs at The New York Times, Le Monde and ABC News, was the lead writer on National Geographic's "Data Points" column on information visualization. He now serves in dual roles: At Stanford University, he is associate editor of the Bill Lane Center for the American West's original journalism blog, "...& the West," and at the University of Colorado, he is the data and infographics consultant for The Water Desk, a grant-funded project at the university's Center for Environmental Journalism.

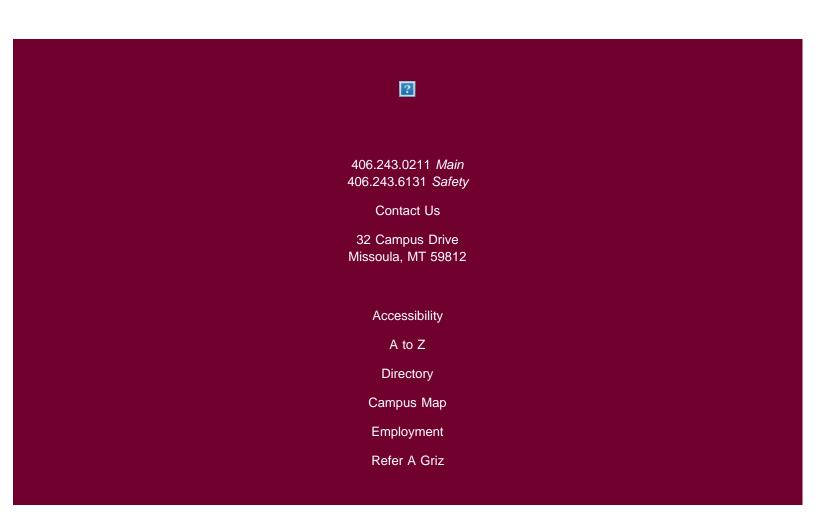
As a Knight Journalism Fellow at Stanford University, McGhee's research on data analysis and visualization resulted in the widely cited video documentary "Journalism in the Age of Data." McGhee spent nine years at Stanford University working at the nexus of academic research and public engagement, developing websites, digital publications and interactive dashboards that explore western environmental, governance and economic issues, as well as historical and cultural topics.

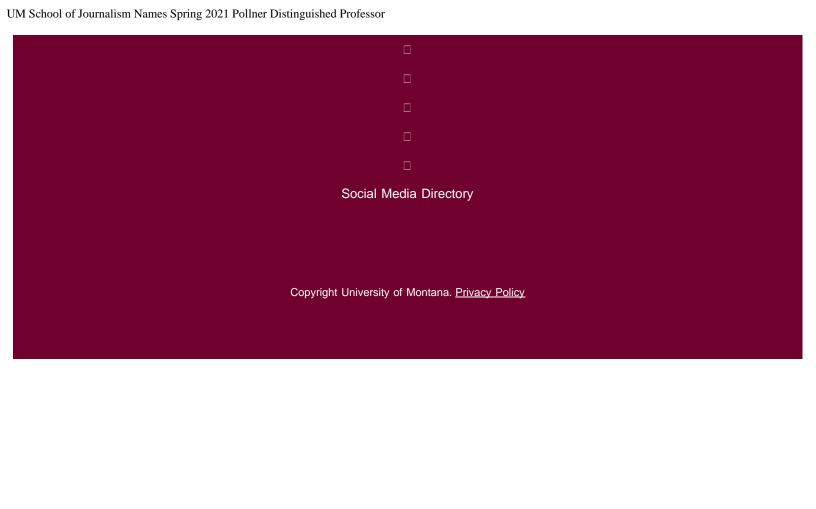
The School of Journalism is proud to welcome McGhee as the 27th T. Anthony Pollner Distinguished Professorship. He follows in a long line of outstanding journalists who have taught courses that complement and enhance the journalism curriculum.

The Pollner professorship was created in 2001 by the family and friends of T. Anthony Pollner, a 1999 School of Journalism alumnus who died in a motorcycle accident.

###

**Contact:** Denise Dowling, associate professor and director, UM School of Journalism, 406-243-4143, denise.dowling@umontana.edu.











UM students rehearse for the online musical production of "The Theory of Relativity."

**MISSOULA** – University of Montana theater, dance and music students will present a joyous and moving look at our surprisingly interconnected lives with "The Theory of Relativity" as UM's next online production Oct. 28-Nov. 8.

The musical is directed by Associate Professor Pam Stiehl and music-directed by third-year Master of Fine Arts student Jane Best. "The Theory of Relativity" may be streamed on demand at any time during its run at UM.

Tickets cost \$12 for general admission, \$8 for seniors and students, and \$10 for UM employees. Tickets are available by visiting https://www.umt.edu/umarts/boxoffice/.

The UM School of Theatre and Dance and UM School of Music are co-producing the acclaimed musical, which was created in 2015 by Drama Desk Award nominees Neil Bartram and Brian Hill.

In the play, a group of Gen Z students create a community out of their shared experiences. Einstein's titular theory and other scientific tenets make the students feel as if they're just little things on this big earth, but they eventually see that finding love can put a big dent in feeling insignificant. Witty, timely and unabashedly emotional, "The Theory of Relativity" is a song cycle that speaks to the interconnectedness of life.

"Musical theatre is a medium that brings people together, and it has been a challenge to figure out what that means when we're not able to physically gather," Best said. "What does it mean to sing together ... separately? This show, with its theme about searching for connection, hits even harder now, and real life imitates art as we search for connection within our socially distanced rehearsals, Zoom coachings and solo recording sessions.

"Seeing these characters yearn for community through a screen is something to which I think we can all relate now," she said. "It's been so exciting to see what the performers have been able to accomplish in our strange new world, and I can't wait for others to see it, too!"

For more information, call Stiehl at 303-709-8720 or email pamyla.stiehl@umontana.edu. To learn more information about the fall 2020 Theatre and Dance mainstage and studio season, visit https://www.umt.edu/umarts/boxoffice/.

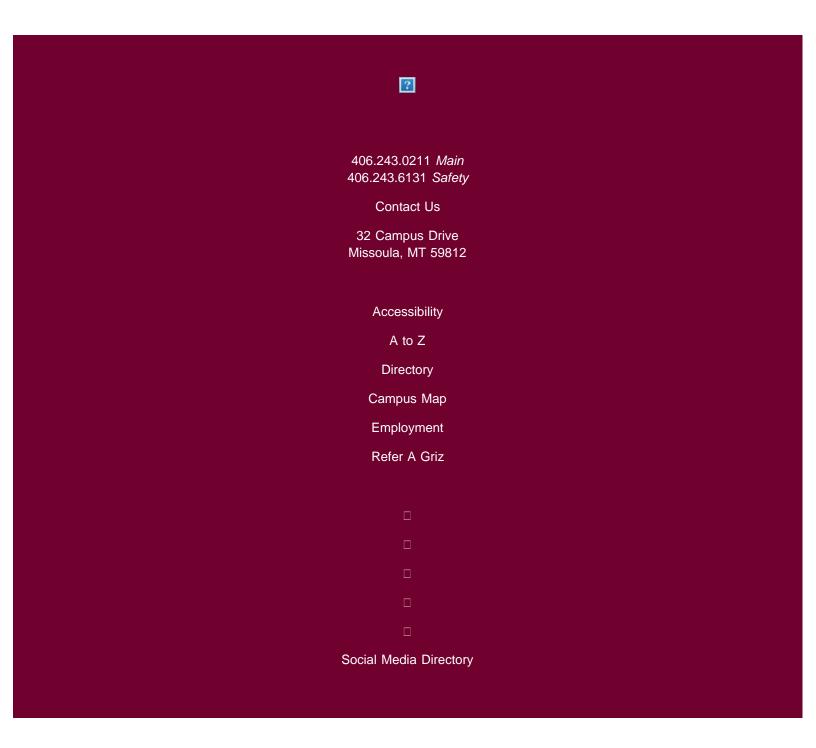
Stiehl said the UM School of Theatre and Dance is thrilled to have found a path forward to continue to create and share the work of students, faculty, staff and guest artists during the pandemic.

The mainstage season and Studio Series for fall 2020 are being presented virtually, beaming

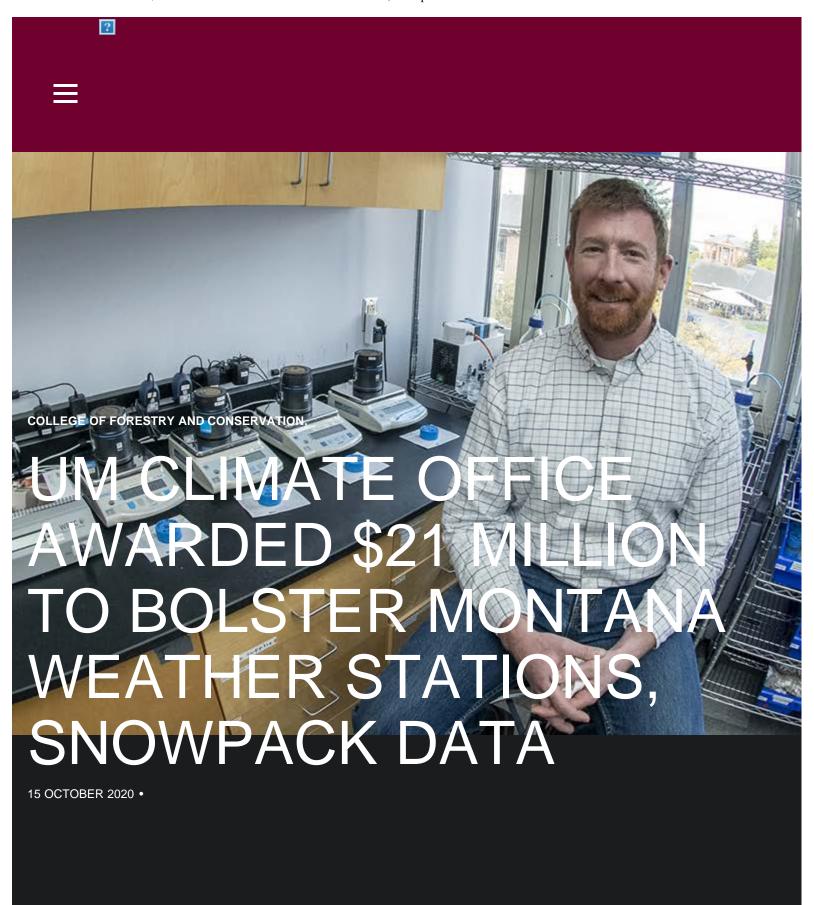
onto patrons' favorite content-consuming device in safe and innovative ways with the help of online ticketing platform ShowTixs4U. Shows are recorded, and purchased tickets grant online access to each production.

###

**Contact:** Pam Stiehl, UM associate professor of theatre, 303-709-8720, pamyla.stiehl@umontana.edu



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Kelsey Jencso, an associate professor of hydrology in the W.A. Franke College of Forestry and Conservation and the Montana state climatologist, will lead a team installing new weather stations in central and eastern Montana.



This is an example of the 500 weather stations to be retrofitted or installed in the Upper Missouri River Basin. (Credit: Genna Langum, South Dakota Mesonet.)

**MISSOULA** – The Army Corps of Engineers has awarded a \$21 million contract to the Montana Climate Office at the University of Montana to install weather stations for monitoring snowpack and soil moisture in the Upper Missouri River Basin.

Under the contract, UM researchers will install these new weather stations in central and eastern Montana – east of the Rocky Mountain front in the Upper Missouri River basin – an area notoriously underrepresented and undermeasured when it comes to climate data.

"If you look at a map of snowpack, we all think of the mountains in western Montana. There isn't a lot of snow in our plains. It's not that it doesn't occur, it's that we don't have data. That's a problem," said Kelsey Jencso, an associate professor of hydrology in the W.A. Franke College of Forestry and Conservation and the Montana state climatologist. "That area is sparsely populated, but what happens there has a big impact hydrologically downstream."

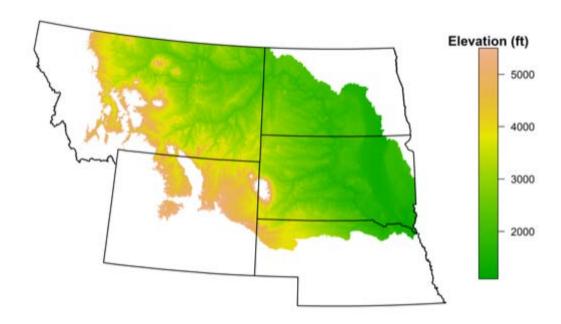
The new stations measure weather variables, including relative humidity, temperature, solar radiation, windspeed, wind direction, snowpack height, and snow and rainfall depths. Below ground, they also measure soil water content at multiple depths, soil temperature and soil water electrical conductivity as a proxy of water quality.

Measurements are collected every five minutes and are shared with key federal agencies and can be viewed online by the public. That data will be used by federal agencies to help with flood control and can also be used by state agencies to help improve drought monitoring, agricultural production and fire preparedness.

Montana forms the headwaters of a land area that drains across almost two-thirds of the contiguous United States. Montana weather and climate conditions, from drought to flooding to fire, impact not only Montanans but also infrastructure, lives and economies downstream.

This new project stems from the largescale flooding in the Missouri River Basin in 2011 and again in 2019, which caused billions of dollars in damage downstream.

The contract is part of a larger collaboration with climate offices in Wyoming, South Dakota, North Dakota and Nebraska that will cover about a quarter million square miles with over 500 weather stations – a station about every 25 miles.



The colored portions of this map indicate the area where weather stations, with advanced

snowpack and soil moisture monitoring capabilities, will be deployed. (Credit: Ruben Behnke, South Dakota Mesonet)

Soil moisture and snowpack are key drivers of drought and flooding in the Upper Missouri River Basin, but they are difficult to measure. The new stations were designed specifically to provide data needed by snow modelers and river forecasters to improve products that inform reservoir management. New data and more knowledge about snowpack and soil moisture in the region will allow the National Oceanic and Atmospheric Administration's flood forecast centers and the Corps' reservoir management team to better predict floods and control reservoirs to minimize impacts.

The project also affects Montana directly. While the data is intended for flood management, it can be used locally to better assess drought conditions, to plan for evolving fire conditions and to improve precision agriculture by helping producers predict the best times to plant and harvest by showing water availability for plants.

"That's part of our mission at the climate office," Jensco said. "We want to use this federal grant to support flood forecasting, but it opens up a lot of other uses for Montana."

"I'm excited not just about the fact that there will be more stations, but that we will have really high-quality data streams coming in that we can utilize for different projects," said Zachary Hoylman, the assistant state climatologist in the Montana Climate Office and a UM alumnus. "It's not just about the data, it's about the opportunities that the data represents."

The project is connected to the Montana Mesonet Project, which was started in 2016 to build a network of weather stations in Montana. Conversations about the Corps' project began in 2012, Jencso said, and the Montana Mesonet started off small, with just six stations, and grew quickly as a proof of concept and a foundation for this larger project. There are currently 80 stations in the Montana Mesonet.

The Montana Climate Office will begin work on the new phase this spring by installing 10 new weather stations, with 20 more to follow by the end of 2021. After that, they will install 50 stations a year until the project is complete. The team will work with federal, state and private partners like farmers and ranchers and with collaborators at Montana State University to identify new sites.

Many of Montana's existing weather stations also will get an upgrade as part of this new

contract. Additionally, the new stations are larger and capable of measuring additional variables like snowpack.

This project will create up to 10 seasonal paid internships for UM undergraduate students as summer hydrological technicians. Jencso said the interns will get plenty of on-the-job training, everything from digging the holes to installing the sensors to analyzing data.

Students will receive applied training in climate, meteorology, hydrology and soil science. They'll also gain hands-on experience with environmental sensors and programming that is important for entry into careers as water resources professionals. Interns will work in the Climate Office's soils laboratory to develop models that allow research to use the real-time data from the stations to predict variables helpful for agricultural producers like plant-available water and fertilizer application rates.

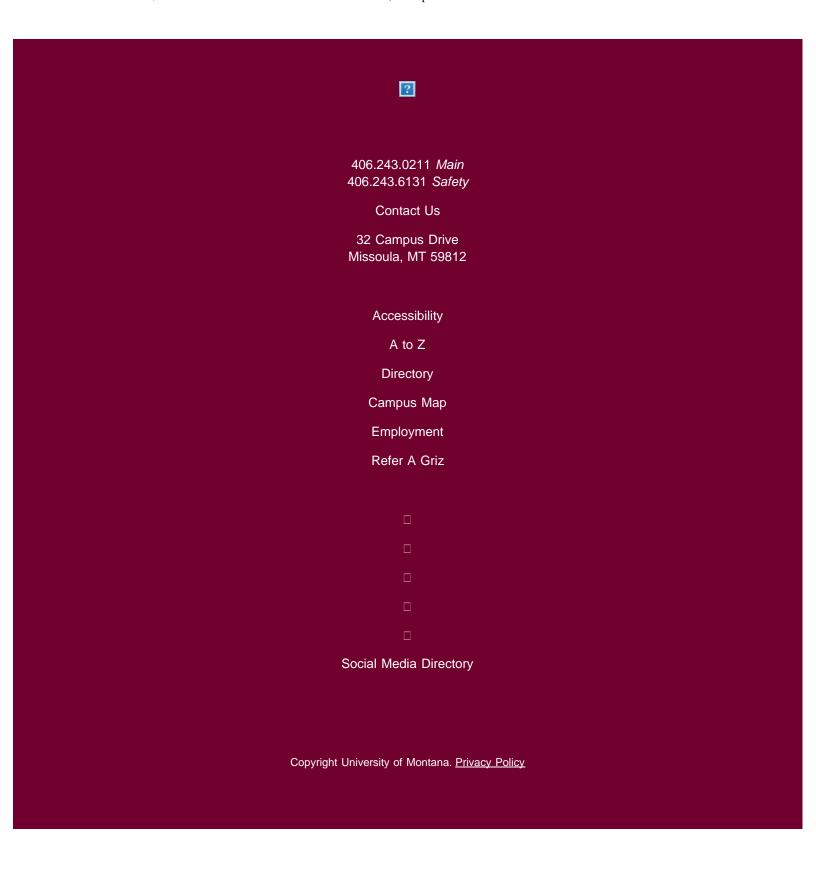
Other project collaborators include Kevin Hyde, the Montana Mesonet manager in the Montana Climate Office; Kyle Bocinsky, research associate in the Montana Climate Office; Bruce Maxwell, professor of weed and invasive plant ecology at Montana State University; the Montana Department of Nature Resources and Conservation; and U.S. Natural Resources and Conservation Service.

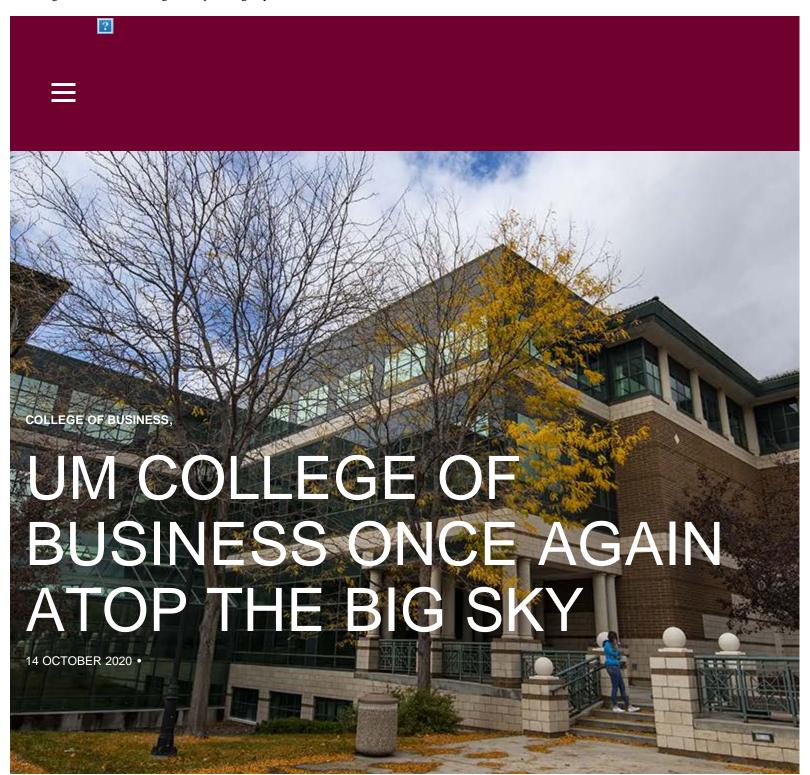
Members of the climate office team say they're also excited to work with new partners and connect with parts of Montana they never have before.

"It builds a foundation as a state to adapt to year-to-year variability in weather and extreme weather events," Jencso said. "But it also provides a means for us to characterize how our climatic conditions change over time. It's an important project and a key stepping stone to making better decisions across the state. Those decisions impact our economy and productivity as a state. During good times, when we have good growing conditions, we can grow more crops. During bad times, we can prepare. It allows us to better manage our landscape."

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**Contact:** Kelsey Jencso, associate professor of hydrology, UM W.A. Franke College of Forestry & Conservation, 406-243-6793, kelsey.jencso@umontana.edu.





**MISSOULA** – The University of Montana College of Business ranks among the best in the nation, according to recently released U.S. News and World Report 2021 rankings.

For a fifth consecutive year, the college earned the top spot in the Big Sky Conference, sharing the honor with the University of Idaho.

"Our ranking among Big Sky Conference schools is a testament to the hard work of our faculty, staff, alumni and students in the College of Business," said Dean Suzanne Tilleman. "We are very proud to be recognized as a premier business learning ecosystem and a leader in economic development."

The Big Sky Conference comprises universities in Washington, Idaho, Montana, Arizona, Colorado, Oregon, California and Utah. The UM College of Business came in 157th in the nation, more than 40 spots ahead of other business schools in Montana.

The College of Business offers six undergraduate majors in accounting, finance, international business, management, management information systems and marketing. At the graduate level, it offers the only separately accredited master of accountancy in Montana and the first master of science in business analytics in the Pacific Northwest. Its Master of Business Administration –the only degree of its kind in the state – lets students earn their diploma entirely online.

With nearly 20,000 alumni, the college has a strong track record of preparing students to launch successful careers as leaders in their chosen fields. UM business alumni rise to management positions with global powerhouse companies like Microsoft, Nike, KPMG and Boeing, and launch careers as accountants, IT consultants, marketing professionals and entrepreneurs – work that bolsters local economies in Montana and beyond.

Over 80% of students from the UM College of Business are working or attending graduate school within three months of graduation.

UM accounting programs, which have longstanding reputations for preparing top grads, rank nationally for CPA exam pass rate, which is 72% over the last five years. Both the undergraduate and master's accounting programs have received national recognition. The Public Accounting Report Rankings had the UM undergrad program ranked 21st in the west region and the master's program ranked 20th.

Overall, U.S. News and World Report ranked UM at 258th among all public and private universities nationally. To view the complete rankings, visit <a href="http://www.usnews.com/colleges">http://www.usnews.com/colleges</a>.

For more about UM's College of Business and its accredited programs, visit the College of Business website (http://www.business.umt.edu).

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**Contact:** Garrett Finke, UM College of Business director of marketing and communications, 406-243-4436, garrett.finke@umontana.edu.











COLLEGE OF FORESTRY AND CONSERVATION,

## UM PROFESSOR SUMMARIZES ROLE OF CLIMATE CHANGE IN 2020 FIRE SEASON

13 OCTOBER 2020 •

**MISSOULA** – In an invited, rapid-publication article for the journal Global Change Biology, University of Montana Associate Professor Philip Higuera tallies the statistics on the 2020 fire season, calling the numbers shocking, yet at the same time sadly predictable.

By the end of September, over 6.2 million acres had burned across the West, with more than half occurring in California – a full 3.7% of the state. In Oregon and Washington, nearly 1.9 million acres had burned, with more than half burned in just a few days.

More staggering are the human impacts: Millions have endured hazardous air, with estimates of thousands of smoke-related deaths, and over 10,000 structures have been damaged or destroyed and dozens of lives lost, said Higuera and article coauthor John Abatzoglou of the University of California, Merced.

The researchers describe how this widespread burning is directly associated with record-setting climate conditions across much of the West. The air was as starved of moisture as it's ever been over the past 40 years in many regions, making vegetation extremely dry and flammable. This dry vegetation makes it easy for humans or lightning to ignite fires and for small fires to grow rapidly and evade fire suppression efforts. Unlike much of the rest of the West, Higuera said, Montana and the northern Rockies experienced below-average burning this summer, with temperatures and precipitation closer to normal.

Warmer, drier summers also help explain the dramatic increase in the area burned by wildfires over the past four decades. Through this lens, 2020 fits right in with other exceptional fires seasons of the 21st century.

"Human-caused climate change is a significant reason we are seeing more and more years with climate and fire seasons like 2020," Higuera said "If this were just a lab experiment, the results would be elegant, but since this experiment includes our lives and livelihoods, it makes it appropriately shocking."

The authors point out that fire is a natural and necessary component of many Western landscapes, but climate change and a number of other human factors are making this and other recent extraordinary fire seasons more destructive to human well-being.

"The alignment of ingredients for fire seasons like this past year are becoming more common as a result of climate change, management practices and human settlement," Abatzoglou said. "We should expect, adapt and prepare for similar years moving forward."

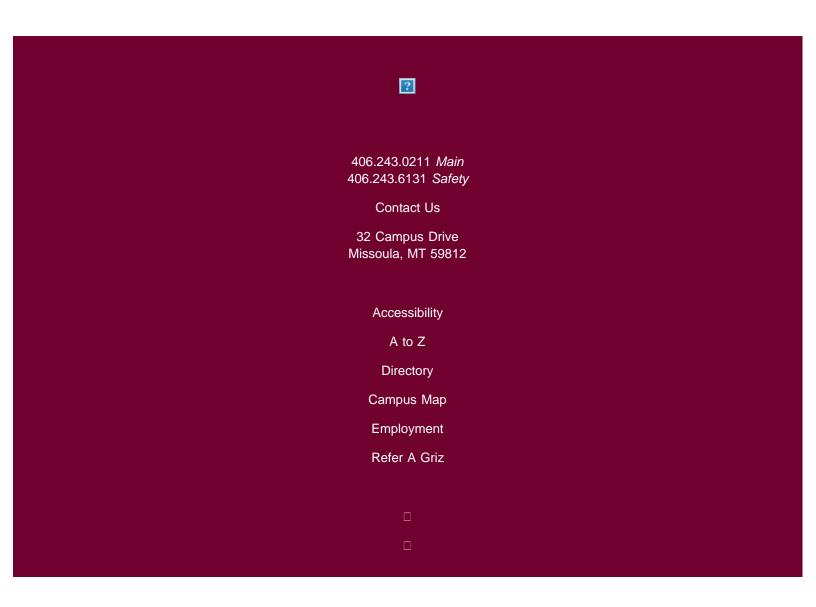
The authors hope the 2020 fire season serves as a catalyst for change – from individuals to federal policy – as have some of the most famous fire seasons of the past, like the great fires

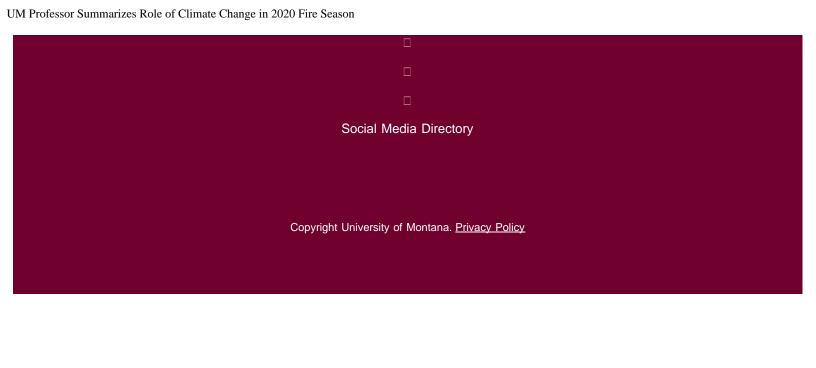
of 1910 that affected the Northern Rockies. The science and evidence highlighted in their editorial make it clear that addressing the challenges of living with wildfire necessarily includes addressing human-caused climate change.

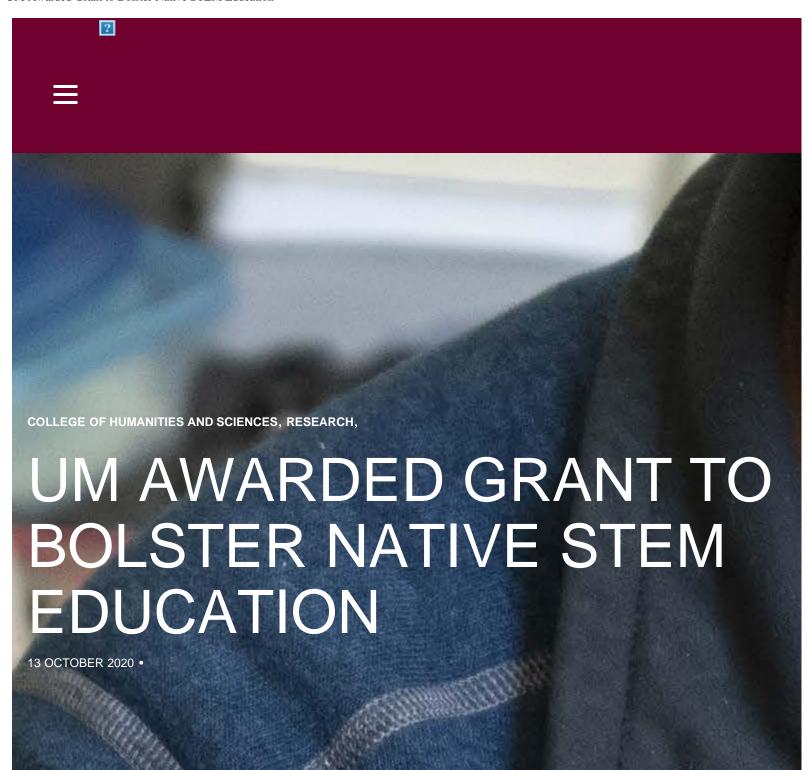
The piece was published in the journal Global Change Biology on Oct. 13 and is available at https://onlinelibrary.wiley.com/doi/10.1111/gcb.15388.

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**Contact:** Philip Higuera, UM associate professor of fire ecology, W.A. Franke College of Forestry and Conservation, 406-599-8908, philip.higuera@umontana.edu.







Aaron Thomas, University of Montana associate professor of chemistry and director of Indigenous Research and STEM Education, is the principal investigator of a \$740,000 National Science Foundation Grant to boost representation of American Indian and Alaska Native students in STEM disciplines. Thomas will work with partnering institutions and tribal communities across six western states for the project.

**MISSOULA** – The National Science Foundation has awarded the University of Montana and partner institutions \$740,000 to boost the representation of American Indian and Alaska

Native students in STEM disciplines and workforce.

Of the total, UM will receive \$236,000 to develop Native-based STEM education activities for K-12 and higher education students, as well as become a model for partnering with tribal communities to advance Indigenous-based STEM education across the country, according to Aaron Thomas, a UM associate professor of chemistry and director of Indigenous Research and STEM Education.

Thomas is also the principal investigator of the award and project,
Cultivating Indigenous Research Communities for Leadership in Education and STEM
Alliance, or CIRCLES. The project will build upon existing partnerships with tribal communities
and tribal colleges in six western states, including Idaho, Montana, New Mexico, North
Dakota, South Dakota and Wyoming to increase the engagement, involvement and success
of Native and Alaska Native students in STEM.

Thomas said the CIRCLES Alliance reflects the community nature of many Indigenous students to thoughtfully bolster representation in the science, science, technology, engineering and math fields.

"We recognize that a different framework is needed for Native American students, one that recognizes and incorporates the unique traditional knowledge, sense of place, rights of sovereignty and culture of Indigenous peoples," Thomas said.

Through the CIRCLES Alliance, researchers at the University of Idaho, Central Wyoming College, the University of New Mexico, Black Hills State University, North Dakota State University and UM will build on strong, existing partnerships with tribal communities and colleges to study promising practices and areas of greatest need in STEM education for Native American and Alaskan Native students.

Ultimately, Thomas said, the project aims to support tribal communities in producing a STEM-ready workforce to meet their communities' unique economic development needs.

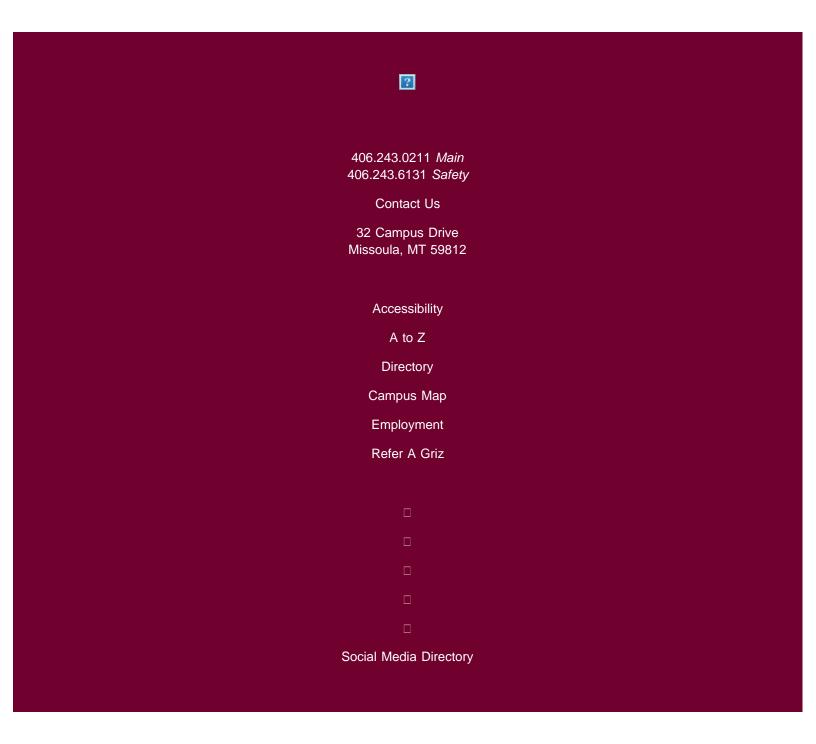
"With 10.5% of the nation's Native American population residing within our project's six states, we are poised to make meaningful, collective impact across our region while generating results and approaches that can be scaled nationally," said Thomas.

UM is home to the Indigenous Research and STEM Education Program, which is dedicated

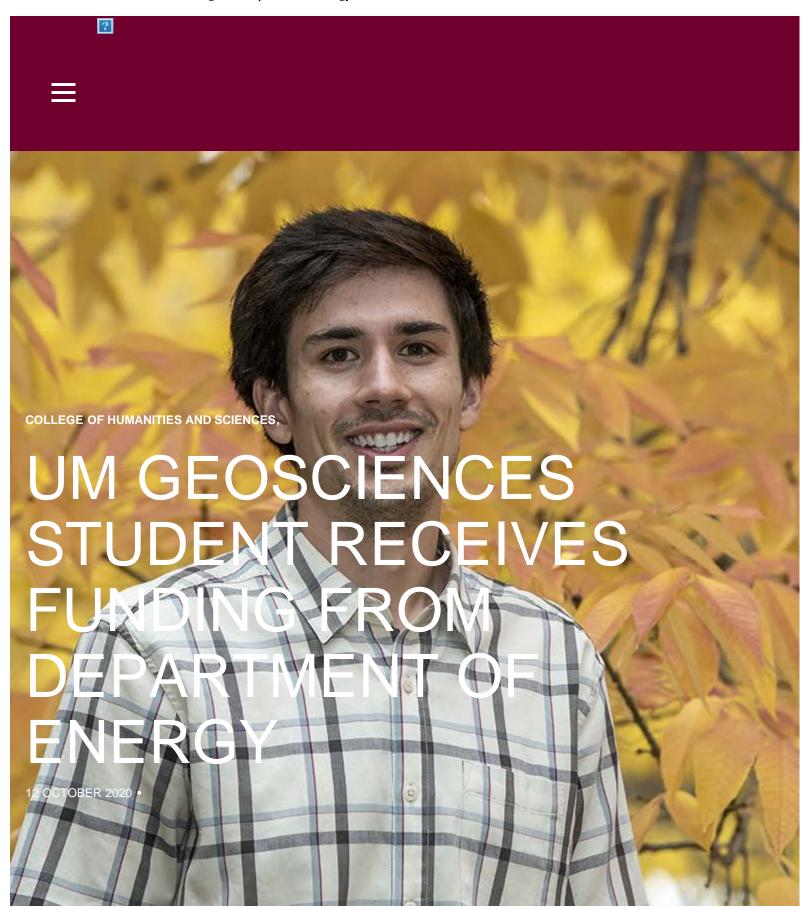
to advancement of Native American, Alaskan Native, Native Hawaiian and First Nation students in science, technology, engineering and mathematics academic disciplines and professions.

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UM geosciences graduate student Nicholas E. Thiros is one of 52 graduate students nationwide to receive funding this year from a U.S. Department of Energy program designed to enhance graduate research. Thiros, whose research focuses on hydrogeology, will work at the Lawrence Berkeley National Laboratory in California.

**MISSOULA** – University of Montana geosciences graduate student Nicholas E. Thiros is one of 52 graduate students nationwide to receive funding this year from a U.S. Department of Energy program designed to enhance graduate research.

The Office of Science Graduate Student Research Program provides supplemental funds for graduate awardees to conduct part of their thesis research at a host DOE laboratory in collaboration with a DOE laboratory scientist. Thiros, whose doctoral research focuses on hydrogeology, will work at the Lawrence Berkeley National Laboratory in California.

"During this fellowship, I will be researching the role that groundwater plays in shaping the hydrology and biogeochemistry within mountainous environments," Thiros said, adding that he is excited to have the opportunity to work at the renowned Berkeley lab.

"In particular, I am interested in the influence that deep and old groundwater has on the predictions we make about water and contaminant movement," he said. "To study this, I will primarily use computer models to predict groundwater flow in a Colorado mountain catchment."

Thiros is in the first cohort of UM's UM BRIDGES Food Energy Water Nexus Trainee Program, which prepares students to advance science toward more sustainable food-energy-water systems. His work in this trainee program complements the research he'll do at the Berkeley National Laboratory, said Thiros' adviser, hydrogeology Assistant Professor Payton Gardner.

"Nick's DOE fellowship marks him as a rising star and is a significant step in his future as a leader in food, energy and water research," Gardner said. "Nick will work with researchers developing high-performance computational models, running on the world's largest computers, to answer some of the most critical water resource questions facing the nation."

Participants in the SCGSR program are selected from a diverse pool of university-based graduate applicants. Selection is based on merit peer review by external scientific experts.

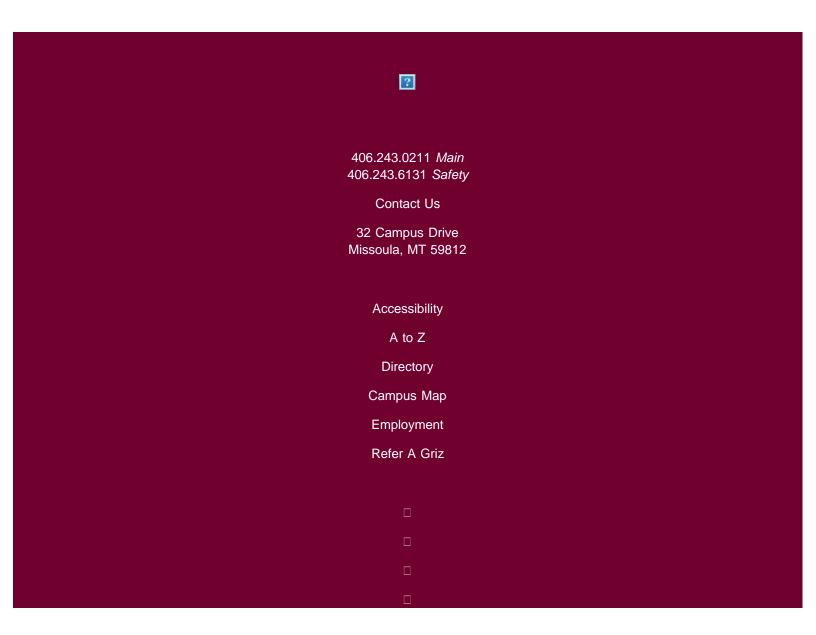
Graduate students pursuing Ph.D. degrees in areas of physics, chemistry, material sciences, biology (non-medical), mathematics, engineering, computer or computational sciences, or

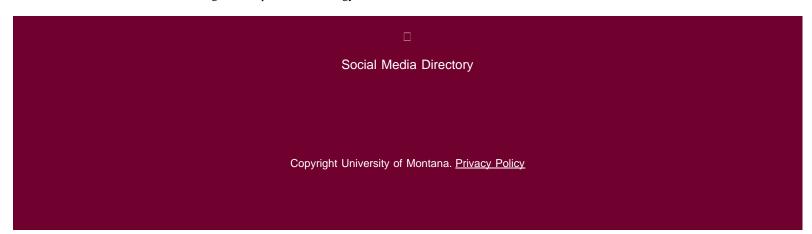
specific areas of environmental sciences that are aligned with the mission of the Office of Science are eligible to apply to the program.

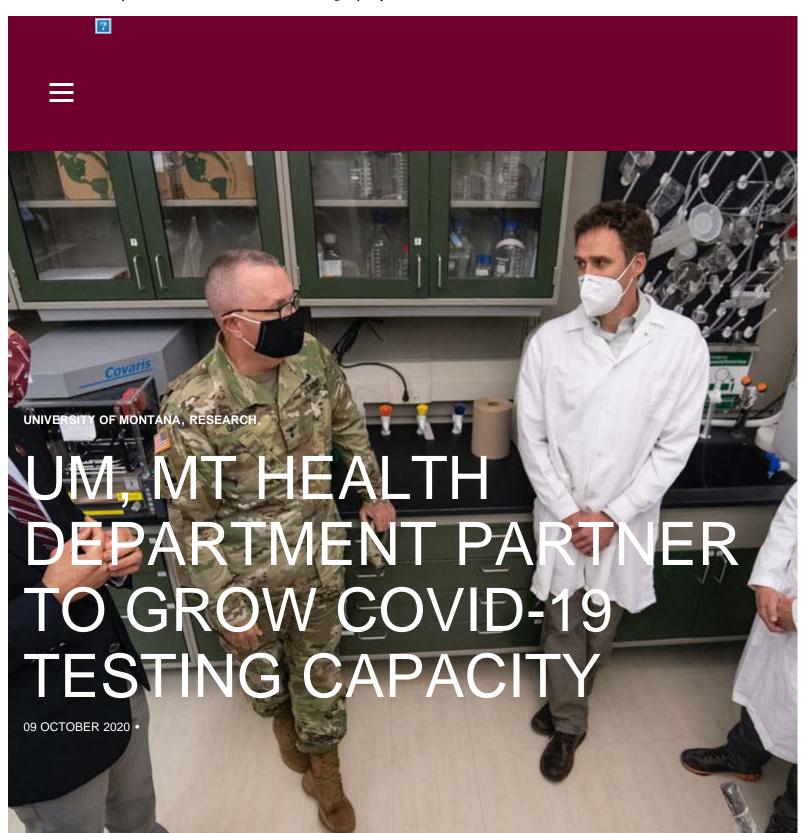
A list of the 52 awardees, their institutions, host DOE laboratory/facility and priority research areas of projects is available online. More information on SCGSR can be found here.

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Maj. Gen. Matt Quinn, commander of the Montana COVID-19 Task Force (second from left), visits a UM lab on Oct. 9 to discuss increased testing capacity for the state. Pictured with him are (left to right) UM President Seth Bodnar, Assistant Professor Jeff Good and Genomics Lab manager David Xing.

**MISSOULA** – As demand for COVID-19 testing increases across Montana, the University of Montana is launching a new partnership with the Montana Department of Public Health and Human Services to process COVID-19 tests on campus.

The partnership between UM and DPHHS will provide the state of Montana with more COVID-19 testing capacity at this critical time.

"UM is eager to expand our public health partnership to best serve our students and the state of Montana," UM President Seth Bodnar said. "I give special thanks to everyone at UM and in Helena who worked so hard to put this agreement in place. Going forward, UM is now in position to add critical capacity to our state's robust testing efforts."

UM has worked closely with DPHHS for weeks to secure the additional equipment and Clinical Laboratory Improvement Amendments (CLIA) certification needed to process COVID-19 tests on campus. UM researchers will begin processing COVID-19 tests early next week at the UM Genomics Core – an on-campus research lab that provides molecular and genetics research services.

"I am grateful to our UM faculty, staff and students for adapting so quickly to fill this need and fulfill our responsibility as Montana's research university," said Scott Whittenburg, UM vice president for research and creative scholarship. "As a result of their hard work, once we ramp up UM will be able to process up to 2,000 COVID-19 tests a week for the state."

The state of Montana's daily COVID-19 testing rate has steadily increased since the beginning of the pandemic, and, to date, the state has conducted a cumulative total of about 400,000 tests.

"UM creating this additional testing capacity is really important for the citizens of Montana," said Maj. Gen. Matt Quinn, adjutant general of the Montana National Guard and commander of the Montana COVID-19 Task Force. "Every test that we can process across the state of Montana is critical to ensuring citizens can get their test results faster."

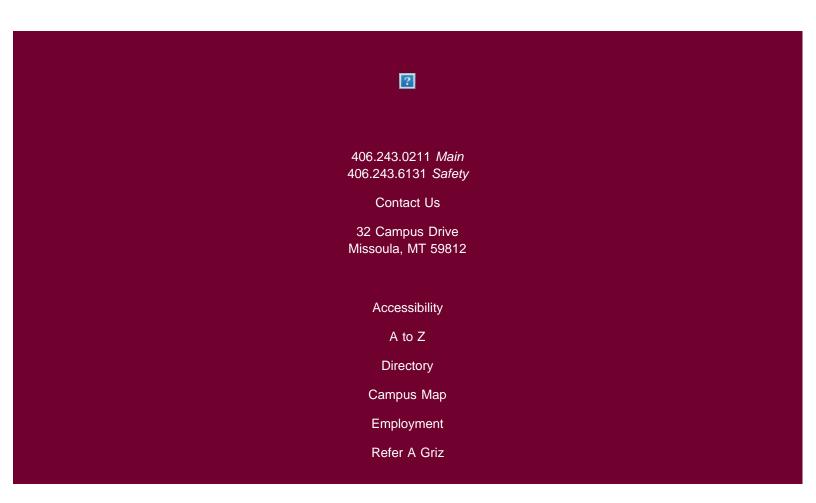
The new COVID-19 testing partnership between UM and DPHHS is in addition to the point-of-care testing already conducted at UM's Curry Health Center. Each day, the center provides tests and immediate results to students who are showing COVID-19 symptoms or have been identified as a close contact of someone who has tested COVID-19 positive by the Missoula City-County Health Department.

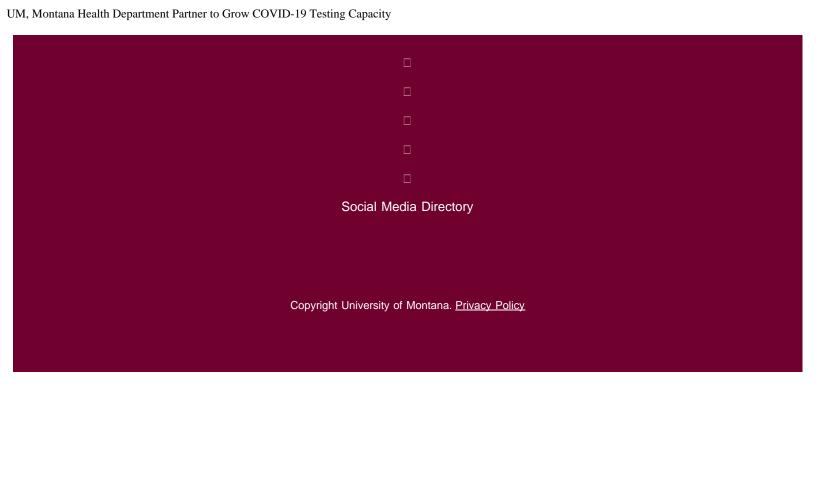
In addition to ramping up testing capacity on campus, UM researchers also are working around the clock to help identify and advance a COVID-19 vaccine. Led by Dr. Jay Evans, UM's Center for Translational Medicine has been awarded \$2.5 million to study the use of adjuvants to increase the effectiveness of a potential COVID-19 vaccine. The work being done by Evans' team, in partnership with the Icahn School of Medicine at Mount Sinai, has garnered UM international attention – including being ranked as one of the top 10 "Best Universities for Solving the Coronavirus Pandemic."

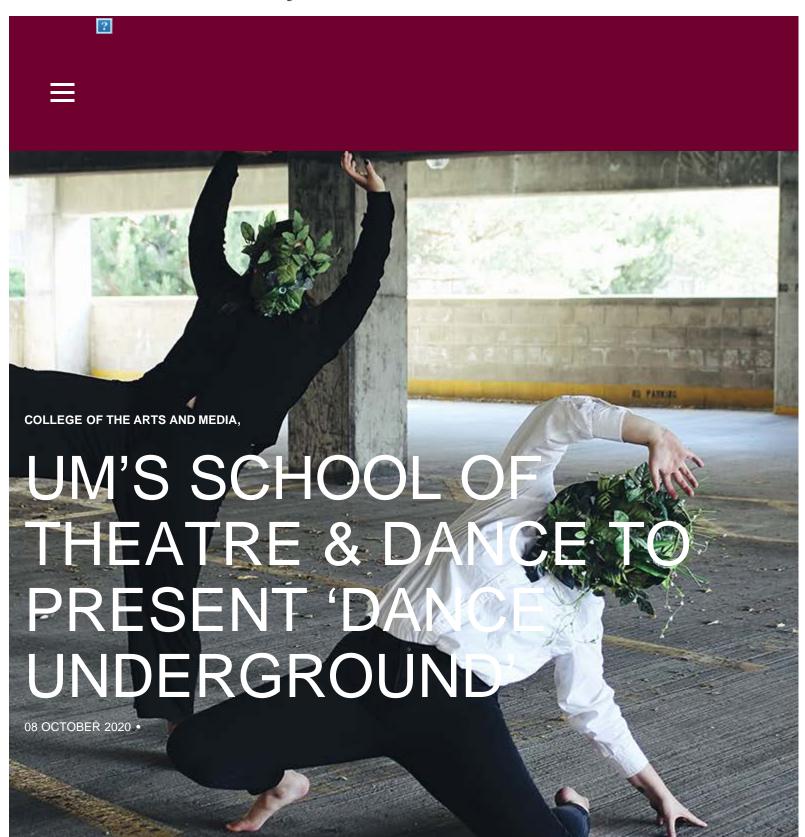
UM also will continue its partnership between the UM School of Public and Community Health Sciences and the Missoula City-County Health Department, which is working each day to measure the impact and prevent the spread of COVID-19 in the Missoula area.

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UM dance majors practice for the upcoming performances of "Dance Underground."

MISSOULA – The University of Montana's School of Theatre and Dance will celebrate

innovative, whimsical and thought-provoking original choreography in its upcoming production of "Dance Underground," streaming online from Friday, Oct. 16, through Sunday, Oct. 25. Shows will be recorded and tickets will grant online access to each production on demand.

Performances are free, but patrons must sign up to gain access by visiting <a href="https://www.umt.edu/umaorts/boxoffice/">https://www.umt.edu/umaorts/boxoffice/</a>. Donations are encouraged to support the ASUM Student Dance Club. Students use these donations to bring guest teachers and choreographers to campus and to partner with local community organizations that strive to facilitate positive social change in Missoula.

"Dance Underground" presents dances from novices to professional choreographers, and is open to choreographers wishing to present work in an experimental setting. This year, all the choreographers were asked to create dances that were made specifically for a video camera. This format allows choreographers the opportunity to explore ideas, narratives and images that might be difficult to fully realize in a live, staged performance. Video also allows the dance makers to use multiple locations and times of day for their work.

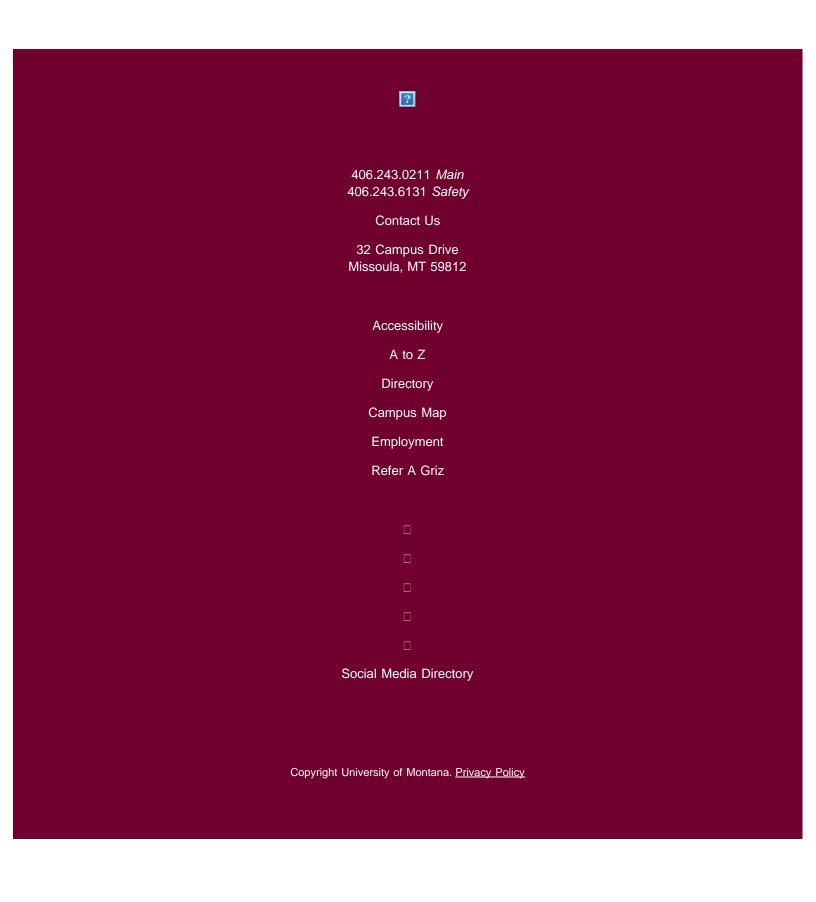
As part of this production experience, the school has invited Joy French — a Missoula choreographer, UM adjunct assistant professor and the artistic director of Bare Bait Dance — to provide workshops on dance for camera for students. French brings an extraordinary wealth of knowledge, experience and artistry, and the dance program is fortunate to be able to share her expertise with both students and the community.

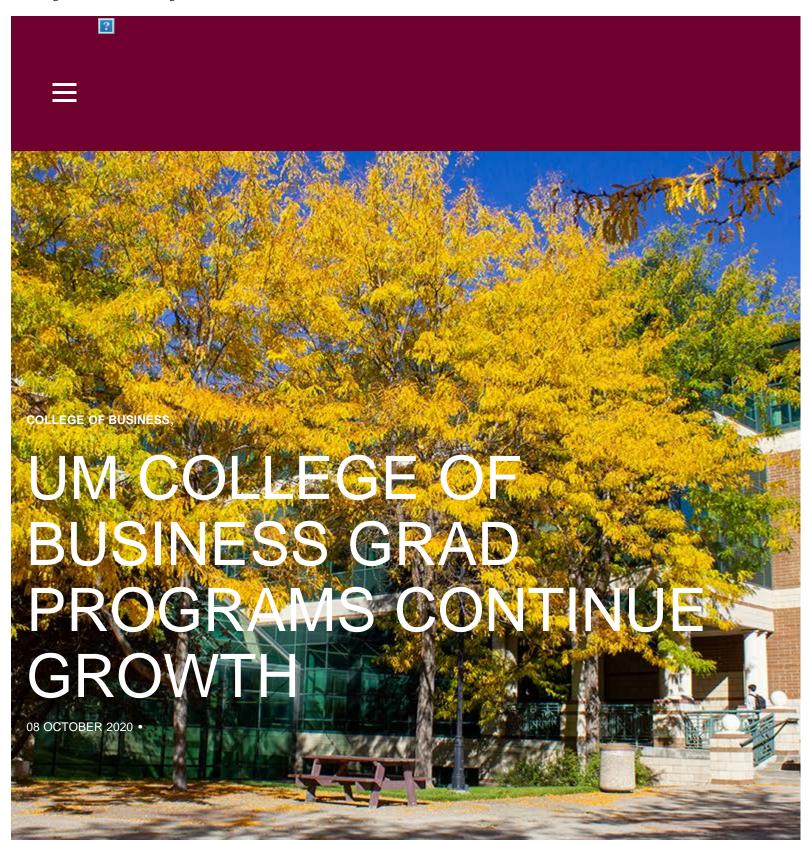
The Dance Program is particularly happy to include the work of Visiting Assistant Professor Brooklyn Draper. Her whimsical work is inspired by the phrase "head in the clouds." She and her cast of 25 dancers explore the world of daydreaming that traverses logic, chaos and interconnectivity. The piece uses recycled materials in the natural world while investigating movement that is individualized within a community and asks: What if we could daydream together?

For more information, call UM Professor of Dance and "Dance Underground" Producer Michele Antonioli at 406-214-9766 or email her at michele.antonioli@umontana.edu. For more information about the entire fall 2020 Theatre and Dance season, visit <a href="https://www.umt.edu/umarts/boxoffice/">https://www.umt.edu/umarts/boxoffice/</a>.

###

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The Gallagher Business Building at the University of Montana.

MISSOULA – The University of Montana College of Business graduate programs are thriving.

Despite a global pandemic and an economic decline, students are flocking to the three advanced business degrees UM offers.

Across the nation, many schools already were seeing declines in enrollment for graduate programs prior to 2020. The UM College of Business is bucking that trend, setting records with an enrollment of 289 students across its graduate programs this fall.

The UM Master of Business Administration is the largest graduate program in the College of Business and has grown by 100 students over the course of seven years. The Master of Science in Business Analytics also is gaining ground, setting record enrollment numbers for 2020. In just its fifth year, the MSBA program has tripled in size.

"I believe students see the value of an education from the College of Business at UM," said Dawn Hambrick, program director of the College of Business Graduate Program. "All our programs offer very competitive pricing, while faculty members provide a world-class learning experience."

The MBA prepares students to operate in today's rapidly changing professional environment. The curriculum helps students broaden and deepen their knowledge and skills so they can meet today's challenges and succeed in the workplace of the future. More than 215 students are enrolled in the MBA program this fall.

The MSBA prepares graduates for successful careers in the newest frontier of the professional environment – at the intersection of business, statistics and computing. Data is more than a trend, it's the new language of business. The MSBA boasts 45 students this fall, which is up 15 students from a year ago.

Both the MBA and MSBA are taught by flexible delivery, giving students the option of taking courses in-person, online or a combination of the two. This year, the Master of Accountancy temporarily joins the other two business programs by offering a flexible delivery option.

The M.Acct. is the only accounting program in the state of Montana to have a separate accreditation from the Association to Advance Collegiate Schools of Business. Only 185 programs – just 1.5 % of the world's business schools – have attained accreditation in both the accounting program and business school.

"Every successful organization is guided by financial experts. Demand by employers for

certified public accountants typically exceeds the supply," M.Acct. Program Director Lisa Eiler said. "Our modern approach and cutting-edge curriculum not only positions students to succeed on the CPA exam, but also in their career."

UM M.Acct. alumni pass the CPA exam at rates far above national averages, and 95% of students have jobs on graduation day.

To help facilitate flexible delivery for students across the three programs, the College of Business has invested in classroom technology that helps students and faculty engage and interact in a classroom setting. There are now three Zoom classrooms and one computer lab in the Gallagher Business Building that have technology specifically designed for flexible delivery.

The technology in these Zoom rooms include ceiling microphone systems, dual camera systems, multiple monitor systems in the front and rear of classrooms and touch-enabled podium monitors to allow professors to write on a screen. The signature feature of all the Zoom rooms in Gallagher Business Building is the technician desk that allows techs to operate all of the cameras for the instructors, as well as troubleshoot any technical issues while offering guidance.

"The technicians arrive at least 20 minutes before the start of class, so all faculty have to do is walk in, log into the podium computer, start the Zoom app and begin teaching without having to worry about the technology," instructional media technician Jeff Meese said.

Having in-classroom technology experts helps ensure lessons are transmitted smoothly and effortlessly to students online, so they can focus on the materials and easily participate with instructors and fellow class members.

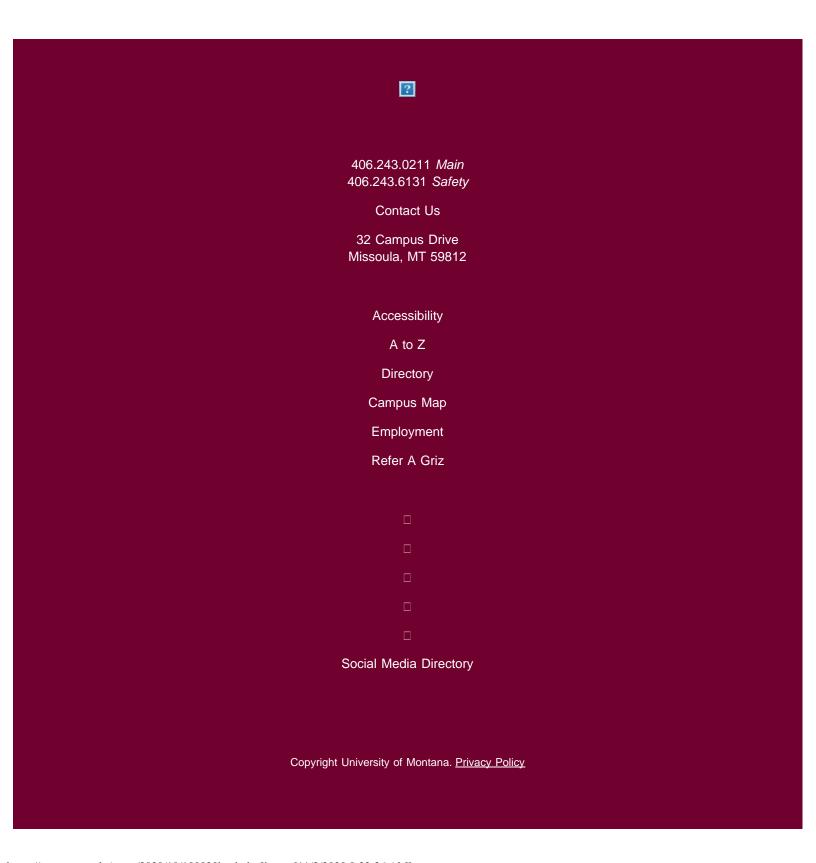
"The ability to customize a learning experience, between flexible delivery, unique certificates and joint programs, continues to draw students from across the country to the College of Business graduate programs," Hambrick added.

For more on the programs, visit the UM College of Business graduate programs website. Applications for the 2021 spring semester are currently being accepted.

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Contact: Garrett Finke, UM College of Business director of marketing and communications,

406-243-4436, garrett.finke@umontana.edu; Dawn Hambrick, MBA and MSBA program director, 406-243-2064, dawn.hambrick@umontana.edu.









UM's 2020 MUS Teaching Scholars are (left to right) Monte Mills, associate professor and director of the Margery Hunter Brown Indian Law Clinic; Salena Beaumont Hill, adjunct professor in Native American studies; Andrew King-Ries, professor in the Alexander Blewett III School of Law; and Kate Brayko, associate professor in the Phyllis J. Washington College of Education's Department of Teaching and Learning.

MISSOULA – The Montana University System has selected four University of Montana faculty members for its 2020 Teaching Scholars program, which strives to enhance student

success and recognize faculty who have made exemplary contributions to teaching and learning at their institutions.

This year's scholars are Monte Mills, associate professor and director of the Margery Hunter Brown Indian Law Clinic; Salena Beaumont Hill, adjunct professor in Native American Studies and the Rural Institute and Rising Native Graduates program manager at the American Indian Graduate Center; Andrew King-Ries, professor in the Alexander Blewett III School of Law; and Kate Brayko, associate professor in the Phyllis J. Washington College of Education's Department of Teaching and Learning.

"The fact that four UM faculty members were chosen for this year's Teaching Scholars program is a testament to UM's commitment to teaching excellence," said Acting Provost Reed Humphrey. "UM's Office of Organizational Learning and Development has promoted faculty learning communities for a number of years. We're excited that this MUS program is using this successful model to address societal inequities in the learning environment."

Each year, the MUS Teaching Scholars program focuses on a selected theme that speaks to innovative approaches to teaching and that aligns with MUS teaching and learning priorities. As the nation grapples with social and racial injustices and MUS seeks to continue to address the ways that these injustices show up in the classroom, this year's program is focused on "Equity-Minded Pedagogies." Teaching scholars were chosen for their commitment to narrowing these gaps and to serving the MUS's larger vision of making Montana public higher education accessible, valuable and equitable for all students.

"This year's theme aligns with the Montana University System's strategic goals around college access and success for all," said Dr. Brock Tessman, deputy commissioner of academic research and student affairs for the Office of the Commissioner of Higher Education. "We want to recognize the work being done in these areas and support the scholars as they lead their colleagues in building a community of excellence around equitable teaching practices."

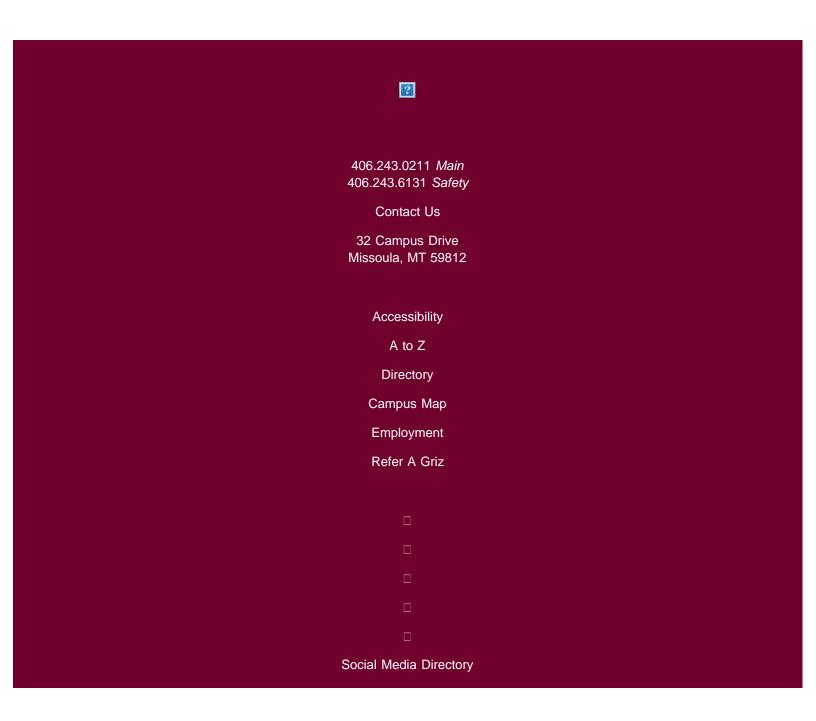
Scholars will receive a \$1,500 award and a \$500 stipend to design and facilitate a faculty learning community at their institution. This year's cohort of Scholars is funded through support from the National Association of System Heads and the Lumina Foundation.

"We're bringing together innovators from across the university system to share, learn and grow together," said Tessman. "While the program celebrates and supports outstanding

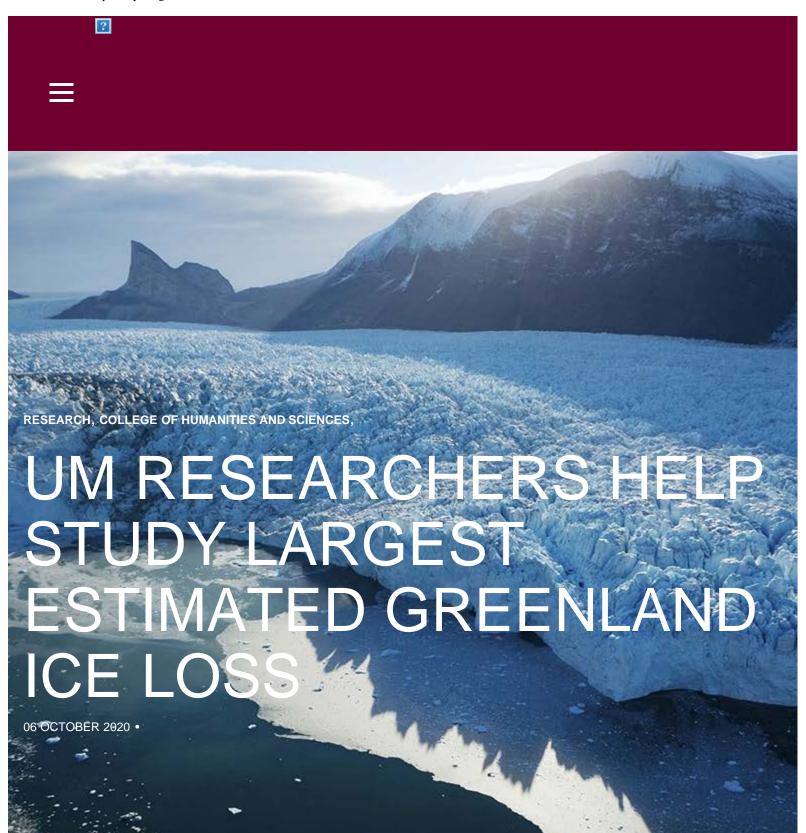
faculty, the true beneficiaries are our students, who will benefit from innovative teaching strategies that make learning more exciting and meaningful."

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**MISSOULA** – University of Montana researchers have contributed to a study forecasting significant ice loss in Greenland. According to the study just published in the journal Nature, Greenland will lose more ice this century than in the past 12,000 years if greenhouse gas

emissions are not curbed.

Through a multiorganizational collaboration, the study brought together climate modelers, ice core scientists, remote sensing experts and paleoclimate researchers.

The team used ice sheet modeling to reconstruct the ancient climate, measuring the accuracy of the model against real-world measurements taken by satellites, aerial surveys and field work. Focusing on the southwestern sector of the Greenland Ice Sheet, they traced the ice sheet from the Holocene epoch 12,000 years ago and projected the ice sheet's future into 2100.

Jesse V. Johnson, a UM professor of computer science, and Jacob Downs, now a UM postdoctoral researcher in applied mathematics, joined the study.

While other researchers focused on discovering how the ice sheet has changed over time, Johnson and Downs measured past climate and temperatures through studying concentrations of gases trapped in the ice. By integrating data from ice sheet retreat and past temperatures into a numerical model of ice dynamics, they then estimated how snowfall has fluctuated with temperature changes the past 12,000 years and could impact the study's modeling results.

Working with such a large, diverse team was eye-opening to Johnson and Downs and helpful for contextualizing their research.

"There is so much incredible science that we were totally ignorant of," Johnson said. "We learned how the climate of the past can be found by measuring the waxes in leaves trapped in the mud under lakes and how micro-fossils found in the ocean can tell you the water's temperature. We really didn't know much about this area of paleo-climate proxies going into this project, but came away fascinated with what they can tell us about Earth's climate history."

The results of the Greenland Ice Sheet study, however, were sobering.

"Basically, we've altered our planet so much that the rates of ice sheet melt this century are on pace to be greater than anything we've seen under natural variability of the ice sheet over the past 12,000 years," said Jason Briner, professor of geology at the University at Buffalo and study lead.

Johnson said the results of the study can't be underscored enough, and comparing today's enormous potential loss with past loss over 12,000 years is important to put it into perspective.

"Such comparisons are critical in understanding what we are living through now," Johnson said. "These changes are much greater than what has been experienced in more than twice the recorded history of homo sapiens. We often wonder what our ancestors would have done when faced with similar circumstances. In this case, the answer is that we don't know. Our ancestors never experienced anything like this."

Briner said the answer lies in the world curbing greenhouse gases. Currently, the Greenland Ice Sheet is set to lose four times its largest loss in 12,000 years in the high greenhouse-gas emissions scenario known as RCP8.5 by the Intergovernmental Panel on Climate Change.

Under a reduced-emission RCP2.6 scenario, however, the ice loss will only be slightly bigger than what the ice sheet has experienced the past 12,000 years.

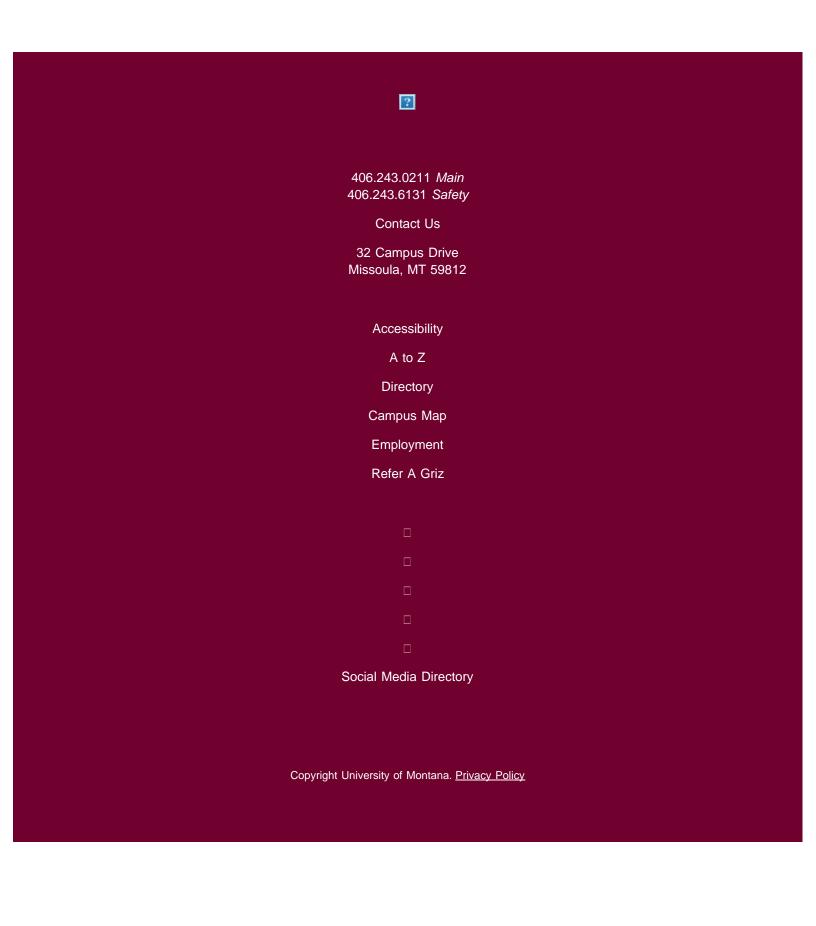
"Our findings are yet another wake-up call, especially for countries like the U.S.," Briner said. "Americans use more energy per person than any other nation in the world. Our nation has produced more of the CO2 that resides in the atmosphere today than any other country. I think Americans need to go on an energy diet."

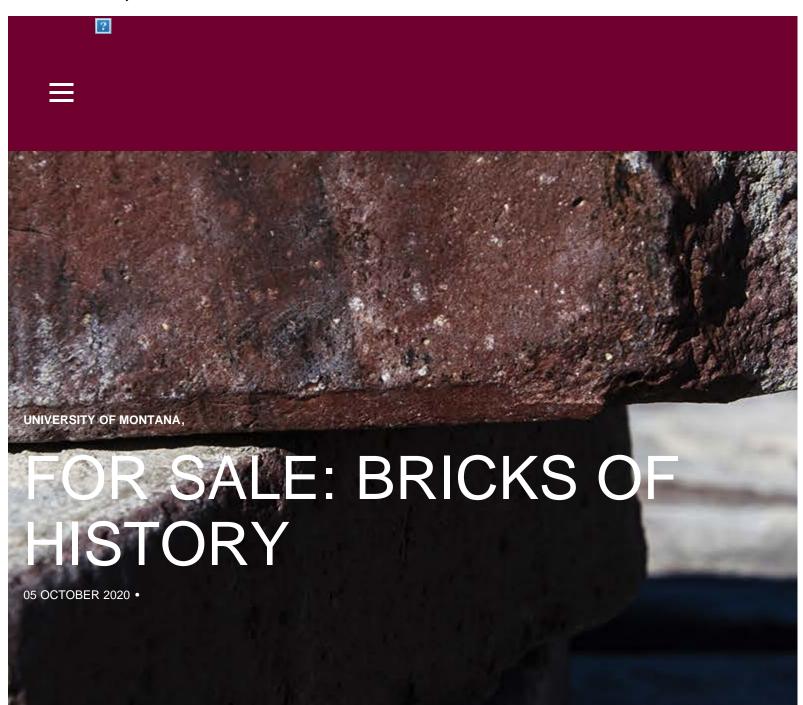
Researchers on the study came from the University at Buffalo; the University of California, Irvine; NASA's Jet Propulsion Laboratory; the University of Washington; Columbia University; Université du Québec à Montréal; the Geological Survey of Denmark and Greenland; and NASA's Goddard Space Flight Center.

The research was supported by the National Science Foundation, NASA, the Natural Sciences and Engineering Council of Canada and the Québec Research Funds.

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Historic bricks from the UM Oval walkways.

**MISSOULA** – You can't go back in time, but you can own a piece of it – if you've got \$50 bucks, a construction project and some elbow grease.

The University of Montana is selling historic bricks from the campus Oval walkways, repurposed from a large-scale reconstruction project this summer that renovated UM's cherished Oval walkways to make smoother and safter for transportation.



Chris Newlon, UM maintenance supervisor, sits near thousands of historic UM bicks currently up for auction to the public.

The \$250,000 infrastructure investment replaced the timeworn bricks, many of them damaged from years of freeze-thaw cycles that made wheelchair accessibility and foot and bike transportation difficult. The project concluded this fall with smooth, stamped concrete textured to resemble bricks, honoring UM's classical aesthetic and original design.

About 60,000 to 70,000 of the original bricks were salvaged from the project, and UM Facilities Services plans to repurpose and reuse them for future campus projects.

The rest are for up for public auction through Oct. 22, found on UM's public surplus website at <a href="http://bit.ly/umbricks">http://bit.ly/umbricks</a>. The auction begins at \$50 for two half pallets of the 1913 bricks, which includes about 600 individual bricks per auction lot. There are 30 auction lots available to the public.

"We have lots and lots of bricks," said Chris Newlon, UM maintenance supervisor.

Newlon said the pallets are ideal for a small-scale projects like a patio, fire ring or a garden project.

"Because these bricks were originally made for roadways, they are heavier (about 6 pounds) than modern bricks and much more durable," he said. "We encourage anyone with either a construction project or fond memory of the original brick walkways to consider bidding."

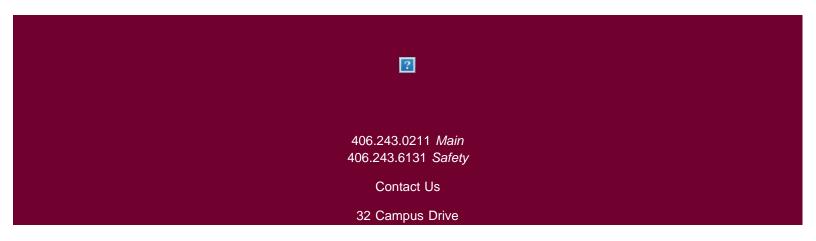
Originally placed on downtown Missoula streets between 1912 and 1914, the bricks were repurposed in 1969 for campus crossways that run east-west and north-south on the Oval in the center of campus. The bricks were made at the former Denny-Renton Clay and Coal Co. in Renton, Washington — once the largest producers of brick pavers in the world.

The first 80 years, the campus lacked walkways across the Oval, and it was considered taboo to walk across the campus greens. University archives include records of a paddling punishment for those caught breaking the rules and a silent sentinel who blew a whistle when the greens were trespassed.

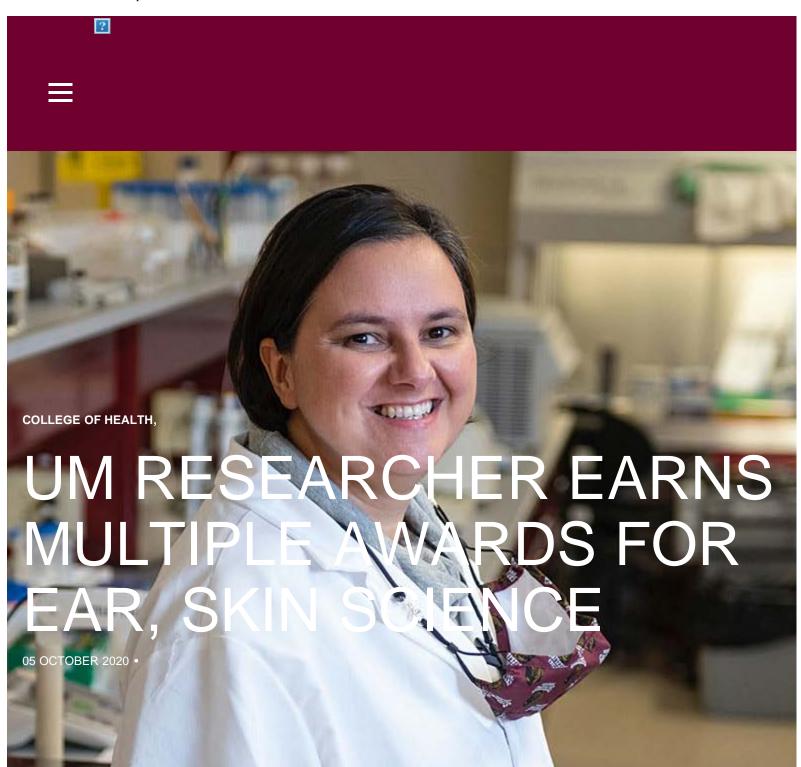
Eventually, the University plans to sell individual bricks through the Alumni Association and the proceeds will be reserved for future capital improvements.

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Monica Serban and her UM lab recently earned three research awards totaling \$3.9 million.



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**MISSOULA** – University of Montana scientist Monica Serban is on a research roll.

In recent months the UM associate professor and her team have earned three awards totaling \$3.9 million in funding to study preventing hearing loss among U.S. troops, combating ear infections and creating a synthetic skin product.

For her first award, Dr. Serban earned a \$2.4 million grant from the Office of Naval Research to explore new engineered systems to prevent hearing loss among U.S. sailors and Marines. The award potentially is renewable for two additional years to provide nearly \$7.5 million in funding.

"In collaboration with a strategic commercial partner, we seek to enable the development of a noise-level-triggered drug dosing and delivery system to prevent cochlear damage," Serban said. "This system is intended to respond in real-time to harmful sound levels, noninvasively deploy hearing protective agents and prevent subsequent ear trauma.

"To our knowledge, this would be the first-of-its-kind system," she said, "and it has the potential to revolutionize the noise-induced hearing loss protection field."

The Serban group will develop some of the key components to help prototype this innovative drug delivery system through the following three objectives:

- Develop a physiologically representative tympanic and round-window-membrane tissue models for ear-on-a-chip devices to enable rapid screening of therapeutics.
- Develop and identify novel hearing-loss protective therapeutic agents.
- Validate therapeutics in ear-on-a-chip devices and develop noninvasive drug-delivery systems.

"My wife's brother served in the Navy on aircraft carriers, so I saw the effects of noise damage to hearing firsthand" said Dr. Bruce Bowler, director of UM's Center for Biomolecular Structure and Dynamics. "This work will have huge benefits for improving the long-term quality of life for those who serve our country in the military."

For the second grant award, Serban and Promiliad BioPharma Inc. received a \$1.4 million National Institutes of Health Phase II Small Business Technology Transfer award. The funding will be used to continue the development of single-application antibiotic delivery systems for outer ear infections.

Outer ear infections (otitis externa or OE) affect an estimated 10% of people in their lifetime, with associated health care costs amounting to over \$500 million annually. Currently, these infections are treated with topical antibiotic regimes and can be supplemented in severe cases with oral medication. However, incorrect application or noncompliance with the administration schedule of antibiotics leads to infection persistence, recurrence and, potentially, development of antibiotic-resistant bacterial strains.

In diabetic or elderly patients, the infection can be life threatening if it progresses into necrotizing or malignant otitis externa (MOE), with severe health consequences. In recent years, the incidence rate of MOE has significantly increased and has been associated with antibiotic-resistant bacterial strains. Therefore, there is a critical need to develop safe and effective therapies for the treatment of OE and prevention of MOE.

Serban's approach to this problem is the development of ThixOtic®, a proprietary drug delivery system that would enable the one-time, point-of-care application of drugs to effectively treat the infection and diminish treatment non-compliance-related risk of antibiotic

resistance development, infection recurrence and complications.

"Dr. Serban has developed a truly ingenious approach for slow release of antibiotics that will increase the efficacy and ease with which outer ear infections are cured." Bowler said. "The simple one-time application of antibiotics will be a real boon for both doctors and patients."

The third award Serban received is from the M.J. Murdock Charitable Trust for \$60,000 to advance the commercialization of a bioengineered system for skin reconstruction.

There are now no critical-emergency, large-surface skin-wound-management products available for first responders. Large-area skin defects typically are managed with the patient's own skin or cadaveric donor skin grafts, as well as semi-synthetic products that involve a two-step surgical procedure and still require a human superficial skin layer graft.

Serban will use the Murdock award to ready a versatile, bioengineered, large-skin-wound management system for technology transfer to the marketplace and subsequent commercialization via strategic field-of-use licensing.

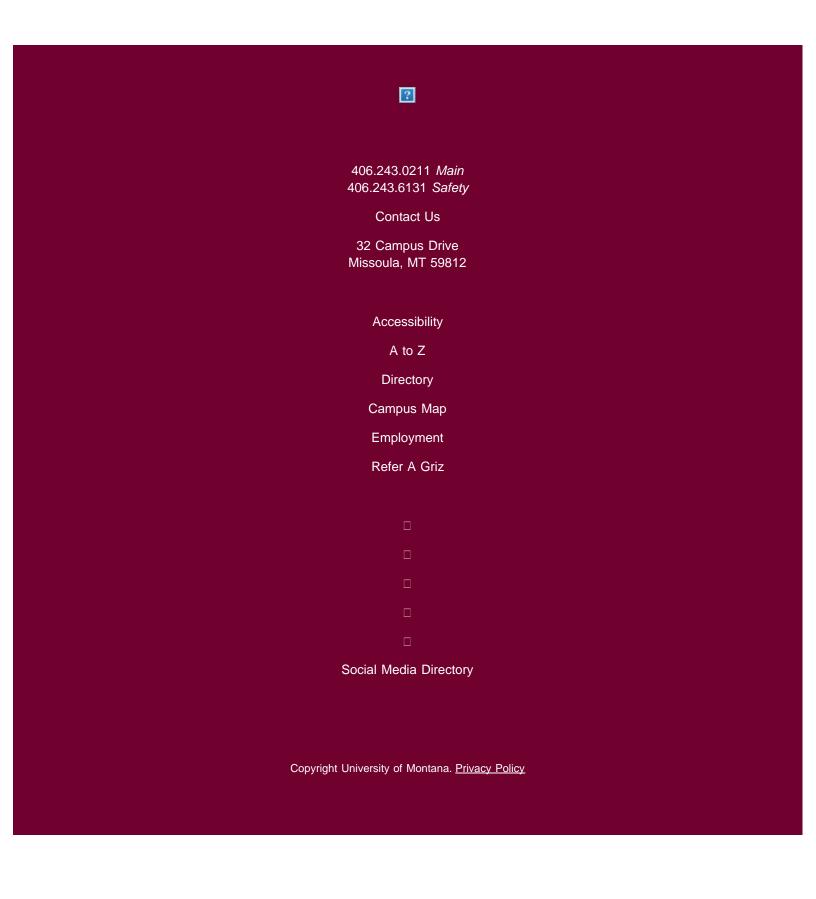
Her product is formulated from natural biomaterials to feel and look like skin and enhanced with additional design features to promote wound healing and suture-free fixation, as well as enable localized drug delivery.

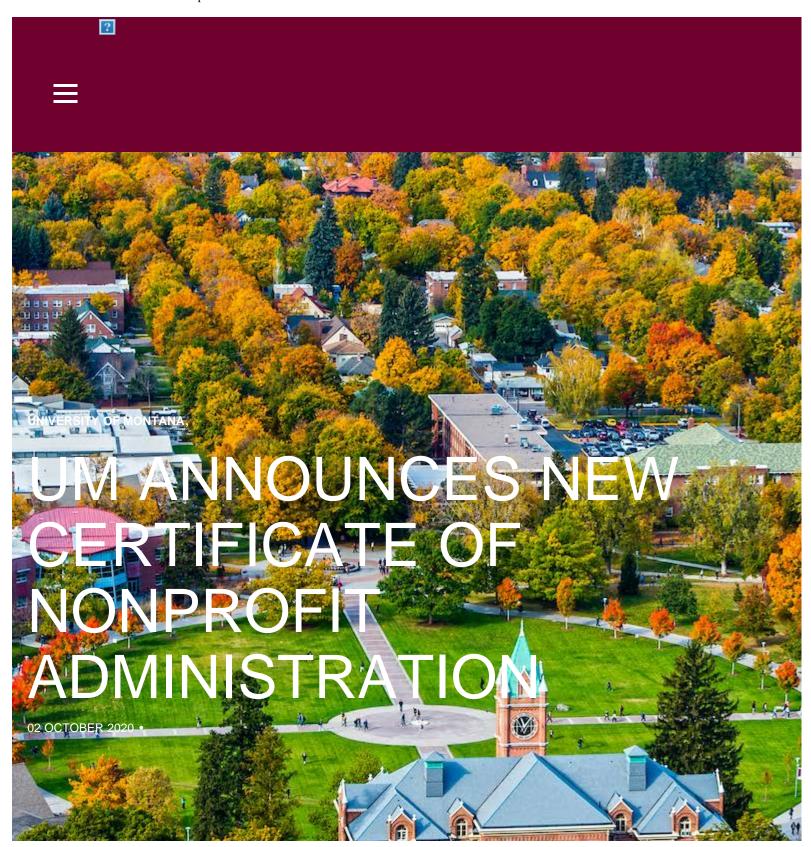
"This grant is important because it will allow us to move a technology developed in our laboratory into the commercialization space and subsequently to the patients who need and could benefit from this product," Serban said. "I am excited to see our research have a societal impact and to be positioned to make a positive difference on someone's quality of life. I am grateful for the University's support for translational research and thank the Murdock Charitable Trust for their invaluable support. This award is the result of a team effort, and it shows that together we can make a difference."

"Dr. Serban's research is representative of the high impact work going on in our research center at UM," Bowler said. "This particular project has real potential to both improve the lives of Montanans and spur economic development within the state. We are very grateful to the Murdock Charitable Trust for their support."

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**MISSOULA** – Montana is home to more than 7,400 nonprofits, a sector that has grown 20% in the last decade across the country, according to the U.S. Department of Labor.

Responding to the need for a pipeline of talented professionals, the University of Montana launched an undergraduate certificate in nonprofit administration this fall.

Offered by UM's Department of Public Administration and Policy in the Baucus Institute, the certificate program helps students build leadership capacity and professional skills to manage and support nonprofit and philanthropic organizations.

"Students who earn the nonprofit certificate learn important aspects that are unique to working in the nonprofit sector, giving them a competitive edge in the job market," said Andrea Vernon, DPAP clinical professor and nonprofit administration expert. "It is a streamlined way to upskill for work in the nonprofit sector for students who are unable to do the full nonprofit minor."

Although DPAP has an undergraduate minor in nonprofit administration, the new certificate provides an additional opportunity to meet growing workforce needs. It consists of four, flexible classes worth 12 credits that students can take online or in person.

"Our department continues to experience tremendous enrollment growth because of our focus on student success and pathways to public service," said Dr. Sara Rinfret, DPAP chair and professor. "Our certificate is another great example of connecting our students to public and nonprofit service opportunities."

Employment growth in the nonprofit sector provides numerous job opportunities to graduates with nonprofit expertise. In the Big Sky state, 11.2% of working Montanans are employed by nonprofits, according to the January 2019 Montana Nonprofit Economic Impact Report. Nationally, the number of those employed by nonprofits is 10%.

Gemma Sladich, a student working toward her undergraduate nonprofit certificate in the program's inaugural year, said she looks forward to helping those who are less fortunate.

"I see myself maybe having a career at a nonprofit such as UNICEF or a smaller non-profit," she said.

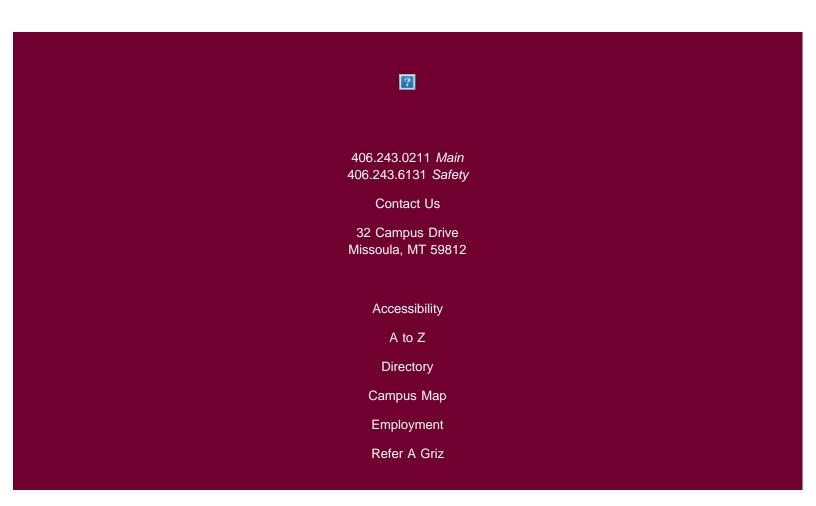
Vernon said the both nonprofit minor and certificate provides graduates a path forward for meaningful employment.

"It is so rewarding to see graduates of our programs now leading incredibly successful nonprofit organizations in Montana and across the country," said Vernon. "By using innovative and collaborative strategies, they are making life better for so many people."

To find out more about undergraduate or graduate education with UM's Department of Public Administration and Policy, visit <a href="http://www.umt.edu/law/mpa/">http://www.umt.edu/law/mpa/</a>.

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JM Announces New Certificate of Nonprofit Administration
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when access to health care is more vital than ever, the Montana Geriatric Education Center at the University of Montana will help provide telehealth services to older patients, thanks to new CARES funding.

The interdisciplinary center will use the \$91,000 from the Geriatric Workforce Enhancement Program CARES funding to provide training for Montana health professionals, higher education faculty and health care students to better meet health needs of older residents in the state.

Through MTGEC activities, health care students and professionals learn to conduct telehealth assessments and visits, provide equipment or technologies to monitor health and chronic disease, and assist older adults in using technology to connect to health care services. Although adults ages 50 to 70 can be technologically savvy, some of Montana's oldest residents rely on phone telehealth calls, MTGEC Associate Director Terry Egan said.

"Challenges with providing telehealth to older adults include lack of technology such as smart phones, tablets or computers, but also a lack of internet service, particularly in rural areas where internet service is limited," Egan said. "There is a lack of experience with technology and perhaps unwillingness or inability (due to dementia or health issues) to learn."

Older adults are at higher risk of serious illness if they become infected with COVID-19, making access to technology during the pandemic extremely important, Egan said. Investing in telehealth will help reach the older patients who are too fragile for travel, located in rural communities or at high risk for COVID-19. It also connects health care providers and caregivers, especially those working with patients with chronic health diseases or dementia, so they can better manage disease and quality of life.

MTGEC Director Sue Ostertag acknowledges that these training programs are necessary both now and into the future.

"Our post-pandemic world will most likely not return to its pre-COVID-19 status, and so now more than ever, the development of health care services and communication systems that rely on telehealth for effective delivery and patient outcomes is of paramount importance," Ostertag said. "Through purchasing telehealth equipment for on-site and remote use, as well as providing support for training and program development, we are better preparing our current and future health care providers to serve the needs of all individuals."

In the trainings, health care providers and students are able to engage with each other through case simulation, as well as directly with individuals via video and phone as they listen, assess, discuss treatment options and provide education.

"Caregivers and family also are involved and can provide valuable input if the patient needs support or assistance and can learn basic care skills and ways to advocate for their loved one from the providers," Egan said. "It also is important for the caregiver to know whom and how to contact if a health issue arises."

MTGEC has partnered with six organizations to provide the training, including the Alzheimer's Association-MT Chapter, Mountain Pacific Quality Health, Missoula Aging Services, UM's Skaggs School of Pharmacy, Partnership Health Center and RiverStone Health Center.

For more information, call MTGEC at 406-243-2480 or visit http://health.umt.edu/mtgec/.

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