The University of Iowa Mobile Museum launched in 2014 as a partnership between the UI Vice President for Research and Economic Development, the Office of the State Archaeologist, the UI Museum of Natural History, and the Old Capitol Museum. The Museum travels the state each year to bring exhibits with cutting-edge research, one-of-a-kind artifacts, and interactive digital media to Iowa’s communities statewide. The majority of visitors to the Mobile Museum are families and K-12 students.

ICRU is partnering with the Mobile Museum for the second year to showcase the vital role that students play in UI’s research and creative community and tells the stories of our undergraduates’ engagement beyond the classroom.

For many Iowans, the work done at universities can seem inaccessible, confusing, and often not relevant to everyday life. What we hope to show through this digital exhibit is that the research and creative work happening at the UI is not only accessible, but exciting, impactful, and important. Undergraduates work alongside faculty, staff, and other students in every discipline and college on campus, representing the arts, humanities, engineering, business, natural and social sciences, and healthcare. By focusing on the role of undergraduates in the University’s research activities, we can give future Hawkeyes and their families a sense of what they or their children could do as students at the University of Iowa.

Last year, ICRU’s highlight of five undergraduate researchers was the favorite digital exhibit among the 34,000+ Mobile Museum visitors. This year, we are highlighting 36 undergraduate researchers from a range of majors and fields of study across the University. The actual exhibit is displayed on a large touchscreen monitor in the museum, so the slideshow includes a photo and a brief, general audience description of the research and creative work each student is doing.

Check out the Mobile Museum’s schedule at the bottom of their website and stop by to see the exhibit. The museum is active from April – November each year and is open for requests be present at an events around the state.
Undergraduate Researchers Highlighted in the 2016 Mobile Museum Digital Exhibit

Alyssa is a Music and Journalism major who helps produce a podcast! She researches music in different cultures (also known as ethnomusicology). Current episodes explore Rock ‘N Roll tribute bands, Jewish Klezmer music, and Indian Film music! You can listen to the podcast, called “Ethnomusicology Today,” on iTunes!

Alyssa works with UI’s International Writing Program. As an English major, she helps teach the summer course for teenage writers from all over the world called Between the Lines. Her research question asks if cultural exchange in writing is an effective way to bring people together for understanding and peace-making. Alyssa says, “Writing is an art, and art is something most people can understand, even if they don’t belong to a certain culture.”

Angela is a Biology major and does research in the Pharmacology Department at the UI Hospitals and Clinics. Specifically, she studies the role of a tumor suppressor in lymphoma and multiple myeloma cancers. In this photo, she’s ready to do some lab work!
Anthony is an Electrical Engineering major and is researching nano-structures (aka really small things!). In this photo, Anthony is working in the Microfabrication Facility and the machine behind him helps created some of the devices he has learned about in class!

Anya is a Neurobiology major and she researches microglia, which are the immune cells of the brain. They patrol the brain and protect it from dangerous invaders like bacteria. This is important understanding in medical emergencies like stroke. Anya wanted to share how cool these cells are, so she made her own comic book about microglia and the brain!

Brian is Health and Human Physiology major and he is doing community based health research. This means that he works on projects that are important to a specific community. For example, he works with a men’s group focused on men’s health and one current project is focused on risky drinking. Brian says, “I love that the research I do not only lets me learn more about public health, but it also helps me model the citizen I want to be in the community.
Brittany is a Neurobiology and Music major. She does research in the Pediatrics Department at the UI Hospitals and Clinics. Brittany’s project focuses on traumatic brain injuries. She says that, “being a part of a network of minds all working towards a common goal of helping alleviate traumatic brain injuries is thrilling.”

Cari is a Psychology major who works as a student researcher in the UI Emergency Medicine Department. Cari studies All-terrain vehicle-related crashes in order to figure out how to make ATV riding safer, “as ATVs are commonly used in Iowa for both occupational and recreational purposes.” Cari is also a student athlete as a member of the cheerleading team!

Chloe is an Anthropology and Psychology major who researches stone tool use in early humans. These photos are from a field school she attended in South Africa, where she looked for different geochemical sources of these stone tools.
Dana is a Music and Music Education major whose creative work focuses on string quartets. She works with the UI String Quartet Residency Program to bring well know musicians to Iowa. The professionals then work with UI students to better their skills.

Danny is a Geoscience and Environmental Sciences double major who is researching volcanoes and their lava flows in Iceland! He is trying to determine where the lava rocks he works with come from in Earth’s mantle and whether or not they are related to one another. Danny says, “I first became interested in science when I watched Star Wars as a child. Ever since then I’ve wanted to study nature and the cosmos.”

David is a Speech and Hearing Science major who does research in UI’s Audiology Lab. His study looks at how sentence context influences speech in children who are hard of hearing. He is hoping that his study can help with some clinical interventions for these children!
Drew is a Physics and Astronomy major and he is researching and building off-plane X-ray gratings. He tests the gratings in a lab at the University of Iowa and makes sure they are capable of flight in suborbital rockets that go into space! This picture shows a rocket that carried one of the gratings and a picture of Drew working in the vacuum chamber!

Eric is a Biology major who studies the formation of heart tissue. Because heart formation is an extremely complex process, it is one of the most common causes of birth defects. Eric works with zebrafish and jellyfish to monitor how the heart forms during embryonic growth in the hopes of helping create treatments.

Erin is an Astronomy and Physics major who studies the Milky Way Galaxy. She also helped to build the telescope on top of Van Allen Hall on UI’s campus. Erin loves research because, “It’s a chance to do practical work, learn necessary skills that can’t be taught in a classroom, and do things in your chosen field long before you go searching for your first job!”
Flora majored in Civil and Environmental Engineering and did a study abroad research trip to Ghana in West Africa. There, she studied water quality from difference sources around the small village of Kobriti. In this photo she is labelling water samples that she collected from a hand-pump well.

Ian is a Chemical Engineering major who studies computational chemistry. His work focuses on how to use computers to do complex calculations that can help lower pharmaceutical costs. Ian says, "I am excited that my research project has real world applications and that the research that I am participating in now could help decrease the cost of medical care and provide better pharmaceuticals for everyday people!"

Jenna is a Biology major and she researches how DNA repairs itself through a processes called Break-induced Replication. However, this is one of the unhealthier ways to repair DNA because it can lead to genetic disorders and cancer. Jenna says, "I really enjoy working with my hands every day and planning and designing experiments."
Jill is a Speech and Hearing Science major and does research in the Child Language Research Center. She studies the relationship between classroom acoustics and how children who are hard of hearing learn. Jill uses a small device that plugs into an iPhone to test the classroom! In this photo, she checks a young student’s hearing aid.

Jeff is an International Studies major who works with the International Writing Program. Jeff’s research is on MOOC development. MOOCS (Massive Open Online Courses) are classes that are available to anyone who wishes to enroll, anywhere in the world. There is no cost to participants and there are no application requirements. Even you could take a writing class using Jeff’s MOOC design!

Katie is an Art and English major. Her research project focuses on music, specifically on the band The Beatles. Part of her research requires her to read the books that other musicians, both young and old, have written about their lives to see if The Beatles had a musical influence on them.
Katie is an English major who is working on research with the University of Iowa Libraries. Specifically she works in Special Collections studying women editors of 20th century Science Fiction fanzines. Fanzines - also known as “little magazines” - are created by fans of books, movies, music, and TV shows and are read and shared by other people who enjoy the same things.

Lee majored in Environmental Engineering and did research on freshwater mussels. He studied how mussels could clean the water of excess nitrogen, often caused by runoff after rain. In this photo, he works with two other students to collect mussels for the study.

Madeleine is an Anthropology major who studies archaeology. Her research focuses on prehistoric ceramic technology that is found in the Iowa Prairie Lakes Region. She spent several weeks of the summer at a field school searching for pieces of ceramics and analyzing them!
Maja is an anthropology major and she is working in the UI Paleobotany Collection. Paleobotany is the study of ancient plants that are usually fossilized. She works with 3,500 specimens, like microscopic algae to seeds and pollen from Ice Age flowering plants. These plants can be up to 2 billion years old!

Maya is a Biology and Spanish double major who is studying inflammation and other ways the body reactions to infectious disease. In this photo, she lowers a sample in a large centrifuge, a machine that separates liquids from solids. Then she can analyze the samples for more information.

Patrick is a Physics major who studies plasma. He says, “Research is very exciting to me because the end goal is discovery and the prospect of discovery and innovation is essential to research. I am attracted by the idea of developing our collective knowledge to push the boundaries of technology further.”
Ryan is a Biology major who does research in the Dermatology Department at the UI Hospitals and Clinics. He is studying an autoimmune disease that causes painful skin blisters. Ryan says, “Although the idea of developing a cure to a disease is exciting, simply finding a way to better treat individuals with these blisters would be extremely rewarding.”

Skylar is a Speech and Hearing Science major who is studying how effective hearing aids are in different real-life situations. This work is important because it can help people who use hearing aids have an easier time hearing the world around them. In this photo, she is testing a patient’s hearing aid. Skylar is also a student athlete and plays for the women’s soccer team at the University of Iowa!

Stephen is majoring in Biomedical Engineering and does research at the UI Cancer Center. He says, "Research is like playing detective. If we can find a way to destroy cancer cells without them becoming more resilient, getting rid of cancer cells in a human body will be easier and would cause less damage to the healthy cells."
Tamar, who is majoring in Cell and Developmental Biology, works in the Department of Obstetrics and Gynecology at the University of Iowa Hospitals and Clinics. The focus of her research is identifying proteins in the body that play a role in reproductive cancers like ovarian, uterine, and endometrial cancer. In this photo, she is getting samples ready for testing.

Victoria is an English major who does research in the same department. She works with a professor to understand the historical connection between mental health and cultural identity in post-colonial times. Specifically, she looks at African and Caribbean immigrant women who came to the United States. Victoria’s findings will be incorporated into a class taught in the English department.

Xavier is majoring in Biology and researches how reproduction influences parasite infection, using a tiny snail from New Zealand! He says, “I enjoy this research project because I get to spend so much time observing a living organism and all the weird and unique things that they do. Life is an incredible process to watch unfold, and this research position gives me a pretty good seat.”
Zach is a Geoscience major and his research project involves looking at sedimentary rocks in the Appalachian Mountains. He is trying to determine where the sediment originally came from. Some of the rock samples they collected are over 900 million years old!

Zehra is a Chemistry major and does research in the same department. She studies air pollution in Pakistan using tiny particles called aerosols. She says, “the most exciting part of this project is learning how polluted the atmosphere in Pakistan really is, its causes, and its implications for the people who live there. This gets us one step closer to being able to improve the poor air quality there.”

Zesen is a Chemistry major who is researching a molecule that neural disorders like Alzheimer’s disease, pain hypersensitivity, and epilepsy all have in common. In order to aid the development of future medicines, Zesen and his fellow researchers are looking to discover how our body’s healthy proteins work together.

A big thank you to all of the undergraduate researchers who have shared pictures of their work over the past year. We love to see what your research and creative work looks like!

Please let us know if you have any questions.
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