

CLAS RESEARCH RESOURCE

September 2020

Welcome! This is the first issue of *CLAS Research Resource*, a new monthly, internal College of Liberal Arts and Sciences newsletter focusing on our college's research mission and infrastructure.

One of my major goals as our new Associate Dean for Research is to increase the flow of information between the Dean's Office and our researchers, scholars, and artists. The *CLAS Research Resource* will provide you with updates on policies, upcoming grant opportunities and deadlines, research-relevant information on facilities and technology services, opportunities and activities in the Office of Sustainability and the Environment, and a roundup of our scholars' latest and greatest accomplishments. I hope that you'll find it both useful and inspiring!

As part of my onboarding process, I am scheduling meetings with every department's DEO along with a couple of their top researchers, scholars, or artists. My goal in these meetings is to learn: **1)** How each department defines its research mission, including its metrics for success; **2)** What faculty feel is an aspirational peer department at another institution, and what that program is doing better than we; and **3)** How I, and the college generally, can be most helpful to the department's research and scholarly activity going forward. I would also like to tour departmental spaces to learn how their facilities impact their research mission. DEOs and ASG, please be on the lookout for invitations from Allison Bierman for these meetings. If you'd like to get on the schedule ASAP, drop her a line at allison-bierman@uiowa.edu.

As you know, the past six months have brought great disruption, anxiety, and (in many things) frustration. Since I began this position July 1, I have been working continually with our leadership team to address many urgent facilities, IT, and policy issues centered around research ramp-up and preparation for fall instruction. My hope is to shift to longer-term strategy this fall, working with you to build our college's research profile. We know that budgetary challenges, travel restrictions, and health and safety concerns will continue to impinge upon our research mission for the near future. Nevertheless, I am confident that, together, we can think creatively and find ways to enhance the success of our college's many brilliant writers, scholars, artists, and scientists.

I am here to help; don't hesitate to reach out anytime at joshua-weiner@uiowa.edu.



Joshua Weiner
Associate Dean for Research



CLAS RESEARCH AND INFRASTRUCTURE UNITS

Associate Dean for Research

Grant Support Office

CLAS Technology Services

**Office of Sustainability and
the Environment**

Facilities Services





CLAS GRANT SUPPORT OFFICE: SERVICES FOR YOUR SUCCESS



Greetings, CLAS Colleagues!

By now, I hope that you have had the opportunity to engage with the **CLAS Grant Support Office**, but I wanted to make sure you are aware of the resources and services that our office provides. **Our primary goal is to ensure that all faculty and staff receive the support they need to prepare, submit, and manage grant awards.** This includes high quality pre-award support, ranging from budget development, proofreading narratives, assisting with boilerplate documentation, managing electronic submissions, and assisting with navigation of the university research infrastructure.

This also includes comprehensive post-award grant management support, such as monitoring expenditures and personnel effort, providing budget forecasts, reconciling monthly financial statements, and assisting with progress reports, to ensure the most effective use of your grant funds while remaining compliant with university and sponsor requirements.

In addition to grant support services, we also collaborate with other entities on campus—such as the Division of Sponsored Programs and the OVPR Research Development Office—to promote trainings, information sessions, and access to resources that support your pursuit of external funding:

- **One of our major goals is to provide CLAS researchers with training in effective grant writing.** For example, we are supporting the cost of participation for 20 CLAS faculty to attend this year's *Write Winning Grant Proposals* seminar, hosted by the OVPR. This training is highly recommended for faculty interested in pursuing federal funding, particularly from the National Institutes for Health (NIH) and the National Science Foundation (NSF). CLAS plans to continue to provide support for our faculty to attend this and other such workshops each year (including those focused on the arts and humanities). Be on the lookout for announcements.

- We are also collaborating with OVPR on a free informational event, "**Analyzing the Research Funding Landscape**," at the end of this month. Do you have a research idea and want to better understand the research funding landscape? Join us in an exploration of different types of research funding sources (i.e., corporate, federal, and private) to identify potential paths to fund your research endeavors. *Register here* to receive the Zoom link and join us from 1pm-2pm on Wednesday, September 30. Co-sponsored by RDO and CLAS Grant Support Office.

We have some exciting plans for these kinds of trainings and sessions, and in the coming months, we will use this space to promote events and share information about resources that are available to grant seekers.

Every department in CLAS has grant support staff assigned to assist faculty with their grant activities. If you do not already know who your contact person(s) are, you may refer to our *department contact list*. I also encourage you to *reach out to me* to share your ideas on how the GSO can best serve you in your grant-seeking endeavors.

We look forward to serving you!

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CLAS Grant Support Office services include:

- Research Development
- Pre-Award Grant Support
- Post-Award Grant Support
- Training and Resources

Upcoming grant and fellowship deadlines: **September-October 2020**



CLAS TECHNOLOGY SERVICES: EMPOWERING TEACHING AND RESEARCH THROUGH COLLABORATIVE INNOVATION



In the face of our current remote working, learning, and research realities in the College of Liberal Arts and Sciences, our CLAS Technology Services team continues to serve as the primary consultation and implementation source for all technology needs in the college. Our group consists of full-stack technologists encompassing application development, business intelligence, project management, Unix and HPC (High Performance Computing) support, and web services, and we are the conduit to your critical local OneIT Consultant. The CLAS Technology Services guiding principle is to first seek to connect you with the ever-evolving central IT resources, while also being ready to deploy our own resources if central services are not a good fit. Our best solutions are often a blend of the two, capitalizing on central capacity with agile innovation from local resources.

The pillars of our support strategy include:

Instruction—Fostering the growth of technology services and support is a critical pillar to ensuring our team's and college's continued success, as the students of tomorrow are largely expecting a culture of progressive adoption of technology. Advancing this vision in the college's instructional spaces must be evidence-based and align with UCR classroom strategies. Over the summer, CLAS Technology Services installed 120 audio visual kits in locally supported instructional spaces to match the kits going in to the 280+ UCR classrooms. We've investigated new one-button recording for lectures and scientific annotation methods using tablets and portable document cameras.

Research—In dealing with the wide array of technology needs across disciplines, CLAS Technology Services may be seen as an integral link between local research areas and the sometimes complex services offered by central ITS. Some of our recent research-support examples include facilitating a remote research clinic in Cedar Rapids; deploying cloud-based honey pots for cybersecurity research; and moving research modeling from on-premise to the cloud in order to facilitate remote experiments.

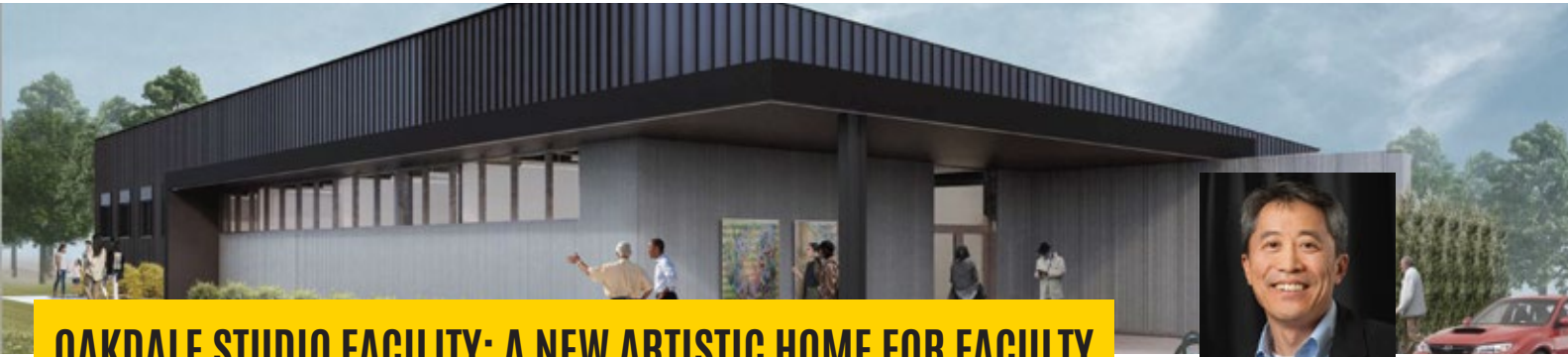
Please let us know how we can help you do your work!

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Connect with CLAS Technology Services to discuss technological support for your teaching and research needs and ambitions.

Start with your **departmental IT consultant** or the **ITS Help Desk**.

Our technology professionals are ready to guide you to the right resources for locating or creating solutions.



OAKDALE STUDIO FACILITY: A NEW ARTISTIC HOME FOR FACULTY

Opening in mid-September 2020, the **Oakdale Studio Facility**, located on the University of Iowa Oakdale Campus in Coralville, is a new single-story facility that will house art studios for the *School of Art and Art History*. The 7,300-square-foot building will provide 14 art studios, display space, and support spaces for faculty members in areas of painting, sculpture, printmaking, ceramics, jewelry and metal arts, and photography.

With a budget of \$2.5 million, the university worked with Rohrbach Associates to guide the design-build process, and awarded the contract to Build to Suit, a design-build commercial contractor based in eastern Iowa. Along with ASK Studios Architects, the Build to Suit team incorporated universal design elements to create a facility that is simple in form, approach and use; minimal detailing and a neutral aesthetic provide an open canvas to create art.

Eleven art studios line the north and south elevations of the building. Three interior studios, not requiring natural light, align through the center axis of the building. A central corridor connecting the north and south studios serves as a gathering space for artists to display their work, take a break, or engage in discussion and critique.

This building supports the research mission of the College of Liberal Arts and Sciences. It provides modern and safe facilities for faculty to work on their research/creative work portfolios, which is an essential part of their faculty appointment. State-of-the-art HVAC systems will provide a safe environment in which to work with the range of materials and processes they use as artists.

Currently, School of Art and Art History faculty have studios located in Oakdale Studio A and the Faculty Art Studios on the Hawkeye campus. Both buildings have considerable deferred maintenance needs, are well beyond their useful lives, and do not adequately meet standards for safety requirements. The university plans on razing these buildings in the next year.

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OFFICE OF SUSTAINABILITY AND THE ENVIRONMENT: CONNECTING PEOPLE AND PROJECTS



Hello! I'm Stratis Giannakouros, director of the *UI Office of Sustainability and the Environment (OSE)*. We are proud to be housed in the College of Liberal Arts and Sciences, where we have the opportunity to partner with faculty, students, and staff in so many disciplines throughout our college and across campus.

Our mission is to challenge and inspire the greater University of Iowa community—through impactful transdisciplinary education, research and artistry, and public engagement—to strive for excellence in creating and maintaining systems-based solutions for the grand environmental challenges of the 21st century.

OSE provides a base for coordinating sustainability- and environment-related programs across our university community, including sustainability education and research. We support connections among existing academic programs, faculty research, and outreach efforts, as well as coordinate initiatives for a more sustainable community. Our office includes three full-time staff employees, along with 12-14 project lead interns.

Our top priority is to ensure that students and faculty who want engage in sustainability have quality opportunities to do so. We're working to expand internship opportunities for students in sustainability and environmental areas as well as develop a greater emphasis on sustainability education and research across colleges and in courses at Iowa. The Office of Sustainability and the Environment acts as a clearing house for environmental and

sustainability research efforts across campus. The complex challenges associated with sustainability require us to think and collaborate across academic disciplines. There is already a lot of innovative sustainability and environmental research and education happening across campus—we're working to connect and enhance these efforts.

My colleagues, program managers Blake Rupe and Beth Mackenzie, and I would love to hear your ideas for sustainability- and environment-related initiatives in education, research and artistic production, and public engagement. Please contact them or me any time.

Stratis Giannakouros
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The UI Office of Sustainability and the Environment, housed in the College of Liberal Arts and Sciences, focuses on three key areas:

- **Student engagement**
- **Sustainability education**
- **Sustainability research**

Meet Sustainability Scientists and Scholars from disciplines across the University of Iowa. Add your info to the database!



FEATURED FUNDING PROGRAM: ARTS AND HUMANITIES INITIATIVE (AHI) GRANTS FROM OVPR

Our featured funding program this month is the Office of the Vice President for Research's Arts and Humanities Initiative (AHI) grants that support humanities scholarship and projects in the creative, visual, and performing arts. Through its three grant mechanisms—Standard Grant, Major Project Grant and Major Conference Grant—the program funds projects that vary in scope, scale, activities and outcomes. From individual scholarship to new collaborations, the program aims to support faculty and staff in advancing their research and creative goals.

Over the years, this program has supported many projects in the College of Liberal Arts and Sciences, including a series of public workshops to create **Carnaval costumes**, a virtual exhibit and documentary screening about the **historical role of horses** in shaping identities, and a technology-based research project aimed at **improving art accessibility** for people with visual impairments. In 2020-21, the program will support six projects proposed by CLAS faculty; you may read more about the interesting work they are doing here. A comprehensive list of previous awardees and short descriptions of their projects may be found on the AHI website.

In order to be successful, applicants will need to clearly articulate their project plan, the significance of the work, the qualifications of the applicant(s), plans to collaborate, and the proposed outcomes and impact of the project. Applicants should also describe how AHI funding will position them to apply for external grants for future phases of their work. **The strongest proposals will include plans to engage the public and disseminate the results of the work beyond the academic audience.** A complete description of the review criteria for each grant mechanism, as well as examples of successful proposals, may be found on the Arts and Humanities Initiative website.

The deadline to submit AHI grant proposals for the 2021-22 cycle is October 13th, 2020 by 11:59 PM.

Online Application System:
[https://uiowa.infoready4.com/
#competitionDetail/1820292](https://uiowa.infoready4.com/#competitionDetail/1820292)

Read about the funded 2020-21 AHI grants



CLAS RESEARCH ROUNDUP: SUMMER 2020

- **Oboists, otolaryngologists, and engineers: School of Music's interdisciplinary research to ensure Voxman Music Building safety**
August 24, 2020
- **Scott Baalrud adds to early career awards with recognition by American Physical Society**
July 31, 2020
- **Lynn, Noonan publish on perceptions of occupation compatibility for mothers**
July 31, 2020
- **Jennifer Buckley wins Outstanding Book Award from Association for Theatre in Higher Education**
July 28, 2020
- **David Wiemer wins 2020 American Chemical Society Midwest Award**
July 23, 2020
- **Paleontologists: 80 million years ago, this monster ate dinosaurs**
July 27, 2020
- **UI researchers find third party app misuse on social-media platform**
July 23, 2020
- **Brian Metzger ('03 BS) wins \$250K Blavatnik National Award for Young Scientists**
July 22, 2020
- **Ekdale, Havens, Nithyanand receive \$1 million+ federal grant to study radicalization in social media**
July 15, 2020
- **Sociology & Criminology faculty receive NSF COVID-19 RAPID grants, win top research and publication awards**
July 13, 2020
- **History Professor Colin Gordon and students uncover Iowa City's racist housing history**
June 23, 2020
- **Ana Rodríguez-Rodríguez is helping Spain reexamine its Golden Age**
June 17, 2020
- **McMillan named a Fellow of the Institute of Sacred Music at Yale University**
June 17, 2020
- **Speech and Hearing Science grads know how to celebrate!**
June 14, 2020
- **Cinematic Arts Professor Christopher Harris selected as 2020-21 Radcliffe Institute Fellow at Harvard University**
June 12, 2020
- **Skiff and Baalrud help shape the future of fusion energy**
June 12, 2020
- **Physics graduate student selected for research at Department of Energy lab**
June 12, 2020
- **Professor of Anthropology Laura Graham elected to leadership of the Society for the Anthropology of Lowland South America**
June 12, 2020
- **CLAS Scholars and Artists Receive Arts and Humanities Initiative Research Grants from UI**
June 02, 2020
- **Simon Balto, Richard Turner Named Fellows of the American Council of Learned Societies**
May 07, 2020
- **Gompper, Penny, Greenwell named Guggenheim Fellows**
April 10, 2020



MEET THE RESEARCHER: MICHELLE VOSS

What is the focus of your work?

Our research examines how the brain changes with development from a lifespan perspective that extends through aging, how changes to the brain with aging impact the way we think, feel, and act, and what lifestyle factors improve brain and cognitive outcomes during aging. Current projects focus on breaking down the general claim that memory declines with aging into a more specific understanding of how and why some types of learning and memory decline more with aging, and how those declines could be prevented with physical activity and theoretically tailored cognitive exercises.

Tell us about the broad impact it has/could have

Progress in detecting whether and how negative effects of aging are starting to take their course on the brain or cognitive performance, and how these changes may be non-pharmacologically stabilized or reversed, will lead to insight on how such plasticity is possible and inform prevention strategies. We also plan to connect our cognitive outcomes back to health behavior change, so that we can understand not only what behaviors minimize cognitive decline associated with aging, but also how to improve the cognitive abilities we need to change our habits in support of healthier brain aging.

Michelle Voss of the Department of Psychological and Brain Sciences joined the UI faculty in 2012. Her primary research interests include using a cognitive neuroscience approach to study cognition, expertise, and learning and memory in the aging brain; effects of health behaviors on brain structure and function; systems-level approaches to functional MRI; and brain structure-function relationships. To date, she has published more than 115 peer-reviewed studies, five book chapters, and numerous conference abstracts, and has presented often at universities and conferences nationally and internationally. A committed teacher and mentor, Professor Voss—a member of the UI's Aging Mind and Brain Initiative—teaches students at all levels, and has served on doctoral comprehensive exam or dissertation committees for some 50 students. She earned her PhD in Psychology, Brain and Cognition, from the University of Illinois at Urbana-Champaign.

What excites you about the environment in CLAS?

I am excited to see increased energy around increasing diversity in our faculty, students, and in all aspects of our University community. I have also seen CLAS show an enduring motivation to support faculty in breaking down barriers between different areas of science in our research and teaching. Even with the challenges and uncertainties that COVID has brought, I am excited to see so many faculty and instructors thinking creatively about how to engage undergraduate and graduate students through experiences both inside and outside the classroom.

What are your hobbies, pursuits outside of work?

I enjoy being outside with my family including my two children who are ages 9 and 5, and I enjoy being physically active, and reading and writing. I have always enjoyed running and cycling, and during COVID I've rediscovered my love of cycling by treating myself to a cyclocross bike that I try to ride as much as possible.

Favorite things to do in IC?

Explore new hiking and biking trails with my family and friends, explore playgrounds and parks with our kids and other families, support local sports, restaurants, and the arts, and browse books and drink coffee at Prairie Lights bookstore.



OBOISTS, OTOLARYNGOLOGISTS, AND ENGINEERS: SCHOOL OF MUSIC'S INTERDISCIPLINARY RESEARCH TO ENSURE VOXMAN MUSIC BUILDING SAFETY

With less than a month before faculty, staff, and students prepared to come to campus, Voxman Music Building—home to more than 500 School of Music (SOM) musicians—was transformed into a research lab. SOM director Tammie Walker was at the forefront of these plans, bringing in not just fellow musicians, but also UI doctors and engineers. Through a series of tests, the team identified a list of proactive protocols that would keep Voxman a safe, welcoming place for all.

“The University of Iowa School of Music is leading the way for institutions around the country by marshalling the incredible resources available right here on our campus to attack these difficult problems together,” UI otolaryngologist Adam Schwalje, MD, said. “Absolutely essential to the team that Dr. Walker brought together were the expertise of bioaerosol expert Matt Nonnenmann (associate professor, College of Public Health), sophisticated computer modeling of various Voxman spaces by Charles Stanier (professor, Chemical and Biochemical Engineering), and the advice of UI otolaryngology professor Henry Hoffman, Dwight Schumm of Design Engineers, and the UI Facilities Management team.”

Schwalje and a team of medical researchers collaborated with the building’s engineers to facilitate an aerosol flow experiment, which helped to determine “hot spots” in Voxman’s Concert Hall and classrooms. Aerosol particles are small droplets that travel through the air, easily spreading airborne diseases like COVID-19.

“Aerosols can be produced by breathing,” Schwalje said. “They can be produced by speaking, and as we’re learning more and more, they can also be produced by wind instruments, singing, and playing brass instruments.”

Recent preliminary data from the University of Colorado Boulder and the University of Cincinnati suggest singing and playing brass and woodwind instruments produce higher levels of aerosol particles than normal speech.

Identifying and avoiding the spots where these aerosol particles congregate will protect concert attendees and performers from the spread of the disease. Additionally, the SOM is designating certain practice rooms for artists who produce higher levels of aerosol and will install HEPA-filter air purifiers.

“As we plan for our fall return to the Voxman Music Building, we are basing all policies on data provided by our dream team of medical, scientific and engineering experts,” Walker said. “Some of these decisions were challenging, like the decision to not hold any aerosol-producing lessons in faculty studios, but our exceptional faculty are flexible and keeping perspective. No decisions are finalized until they meet both criteria of optimal safety and optimal student educational experience.”

In late July, Schwalje gave a virtual presentation for the International Double Reed Society that discussed the effect of wind instruments brass instruments and singers effect on COVID-19 spread. During the presentation, Schwalje cited a study, published in *Emerging Infectious Diseases* by the Guangzhou Center for Disease Control and Prevention, which concluded that the ventilation system in a Chinese restaurant caused aerosol-spread of COVID-19. This research suggests the risk of airborne spread might be mitigated with air quality improvements.

To prevent surface spread, all surfaces in SOM practice rooms and classrooms will be sanitized between sessions. Chairs and tables in classrooms will be spaced six feet apart with floor markings. Signs with traffic pattern regulations will help maintain social distancing in the hallways.

Following University of Iowa guidance, the SOM says faculty, staff or students experiencing symptoms, under investigation or have active coronavirus infection must not attend in-person School of Music classes or events.





Professor Walker and Dr. Schwalje with a negative pressure box in the Concert Hall



Checking out a practice room with a nebulizer

The new protocols fall in line with the air handling unit (AHU) recommendations published by the UI Facilities Management. Tom Slaubaugh, Katie Rossmann, and the UI Facilities Management team are working with CLAS Associate Dean for Research Joshua Weiner to ensure all CLAS AHUs are ready for the return of instructors, staff, and students.

“As we implement guidance from UI’s Critical Incident Management Team to prepare for fall instruction, the safety of our buildings, including classrooms, offices, and laboratory spaces, is paramount,” Weiner said. “We are taking several steps to minimize any coronavirus exposure, including limiting seating in common areas and classrooms, working with Facilities Management to ensure upgrades to air handling and filtration, installing hand sanitizer and disinfecting wipe stations in all classrooms, and utilizing plexiglass barriers in computer labs and offices.

Making classrooms the first priority, every learning space receives an air quality rating on a six-point scale based on the American Society for Heating, Refrigerating Air-Conditioning Engineers’ (ASHRAE) recommendations for infection prevention.

Before the pandemic, most buildings on the UI campus had a MERV air filter rating of 8, which is the standard commercial rating. To improve air quality, all SOM and CLAS MERV air filters will be upgraded to a 13 on the rating scale.

“The proactive efforts that the School of Music is taking to maintain their critical instruction in a safe way provide a model not only for other units on campus, but for departments across the country,” Weiner said. “This collaboration spanning the arts and sciences represents just the kind of interdisciplinary thinking the college wants to promote amongst our units, and I am proud of the team for their work.”

—by Grace Culbertson

The School of Music worked with a medical, scientific, and engineering team all summer to create the safest possible return to the Voxman Music Building. This “dream team” has gained international attention, with invitations to present their research from the National Association of Schools of Music, International Double Reed Society, and the BBC program “Music Matters.”