

The University RESEARCH NEWSLETTER

The University Research Newsletter
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MILLERSVILLE UNIVERSITY OF PENNSYLVANIA



A Message from the Provost

The fall semester ushers in a new year of learning, research, scholarship and

opportunity at Millersville University. This year we face a unique challenge to our lives, and in times like these, it is essential to remember Millersville's EPPIC values—Exploration, Professionalism, Public Mission, Inclusion, Integrity and Compassion.

The pandemic has forced all of us to look at the world in a different way which stimulates our value of Exploration in determining undiscovered paths forward. Despite these challenges, our talented faculty, dedicated staff and driven students have modeled the very idea of Professionalism in their adaptation to new circumstances so that we may continue our scholarly and creative work. Our commitment to ensuring that all Millersville students receive a high-quality education, regardless of the tumultuous times we find ourselves in, is a wonderful example of both our Public Mission and our value of Inclusion. Although our civic engagement must be carried out a little differently, we will not sacrifice our Integrity, and we will continue to uphold our core principles. I find myself at a loss for words to describe the outpouring of Compassion and support within our wonderful community.

After the pandemic has passed, the world may look different, but one thing will never change: Millersville University's unwavering support of scholarship, wherever and however it may be found. This edition of the University Research Newsletter showcases some of the important work being done at Millersville despite the pandemic. Interviews from students and faculty provide a glimpse as to how they are not only surviving the obstacles of the pandemic, but thriving, continuing their scholarship and learning beyond the barriers the world is presenting them. Also included are discussions with the English department and the Dean of the College of Education and Human Services, a look at student-faculty collaborations in the chemistry and history departments, and an interview with Dr. Hardy (computer science). It is wonderful to see the value of Exploration shine through these members of our community, faculty and student body. I hope you enjoy reading about their wonderful experiences.

Together, let's make this fall semester a safe, productive and successful one for the entire campus community.

Best wishes,

Vilas A. Prabhu, Ph.D., M.B.A.
Provost and Vice President
for Academic Affairs

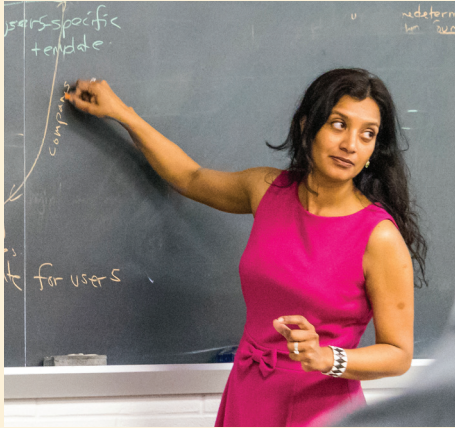
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FACULTY INTERVIEW

Dr. Nazli Hardy

Associate Professor of Computer Science; Chair of the Women in Mathematics, Science and Technology Conference; NCWIT Affiliate Coordinator; Faculty Advisor for Women in STEM Living-Learning Community



When did you begin on the faculty at Millersville?

Fall 2004.

Where did you earn your degrees?

I was born in Bangladesh, but my primary and secondary education is from Zimbabwe. I attended an all-girls high school, where I was encouraged by my parents and teachers to pursue mathematics, science, as well as literature and social studies. That educational foundation and the study habits I acquired from Arundel High School continue to serve me as a lifelong learner and as an educator: Ph.D., computer science, City University of New York, 2005; MBA, media management, Metropolitan College of New York, 1999; B.S., chemical engineering, Clarkson University, Potsdam, N.Y., 1996. I feel so fortunate to have had parents who were strong advocates for my education. I know the power and the value that advocacy holds—that is what drives me as an educator.

When did you realize you wanted to work in your current field?

After I read an article in 1999 called "Armadas in the Sky" about satellites that had been deployed to serve as international communication points,

I knew I wanted to study networking and applications of technology.

What research project has been your favorite or are you most proud of?

I am invested and proud of all my research projects in the following areas: networks, information security, women and underrepresented groups in computer science and STEM fields, computer science education, and interdisciplinary applications of computer science. I received "certificates of merit" for my peer-reviewed research in the field of computer science, peer-reviewed conference publications are the standard. The "proceedings" of the conferences are as valued as the peer-reviewed publications, and that is probably different from other disciplines.

Have you worked on any research projects with students, and if so, what were they?

Over the years I have worked on research projects and presentations with several students. I hope the students know how meaningful it has been for me to work with them. I value both the research and the presentations I do with my students. I co-created an interdisciplinary NatureAtlas with Dr. Christopher Hardy (BIOL) in collaboration with computer science student co-editors Cameron Andrews, Andrew Bonsall and Dan Kral. NatureAtlas is a Web-based biodiversity geographic information system that allows registered users access to tools to map observations and photos of organisms, generate presentation-quality distribution maps, manage BioBlitz inventories and explore biodiversity. Furthermore, NatureAtlas is unique in its educational mission to serve as a venue for the mentoring and training of computer science and biology students in application development and testing in the field of biodiversity informatics.

NatureAtlas has several portals which are customized for use by classes and nature conservancies, including the Lancaster Conservancy. College classes have used NatureAtlas for collection projects, including Millersville University, Fairmont State University, University of Pittsburg-Bradford, Rhodes College and Minot State College.

Why do you think student research is important for a college education?

I attended an R1 institute for my undergraduate degree. Research opportunities were available for graduate students but not for undergraduate students. I wish I could have been involved in more hands-on, application-oriented projects with my professors. Therefore, I value and appreciate the opportunities we are able to provide to our undergraduate students. These research projects allow students to dive in depth into a topic. It's exciting.

How do you believe students can get involved in research to gain experience in their field of study?

I encourage students to reach out to professors within and outside of their majors, outside of the classroom, to discuss their academic and research interests.

Is there anything else you would like to share about your support of scholarship in Millersville or that you think students and faculty should know?

Most faculty learn as much from research projects as students do. They give us the opportunity to keep abreast of what is current and important in our particular areas of interest. ✦

THE VALUES OF RESEARCH IN ENGLISH

Where Creativity and Scholarship Meet



Dr. Caleb Corkery and students at the EAPSU Conference (Photo taken October 2019)

The values of research and scholarship can be found at all levels and in all disciplines at Millersville University. This phenomenon is not lost on the Department of English. "What we call English is, in some ways, an umbrella term for a number of related disciplines that involve language [linguistics], storytelling in all of its media and genres [literature], and the learned discipline of sharing these in written language and other media [writing studies]," said the current chair of the English department, Dr. Kim McCollum-Clark. The real core of English studies, then, is where the innate abilities of language and oral storytelling meet the learned abilities of writing and reading. When these come together, creativity and scholarship blossom.

Dr. Caleb Corkery, the former assistant chair of the English department, noted that the line between scholarship and

creativity in English studies is blurred at best. "All written expression requires imagination," he said, "so I don't see a difference." Dr. McCollum-Clark shared this idea: "Creative 'applications' of English ARE scholarship, and vice versa." Given the English department's commitment to helping people engage with the world through written expression, it should come as no surprise that creativity and scholarship not only blend but encourage each other. Dr. McCollum-Clark explained that reading scholarly input influenced the creative work, which then provided insight into the scholar's comments as part of a cycle of improvement.

The English department offers different capstone experiences for students to "refine their skills as scholars," according to Dr. Corkery. These range from electronic portfolios, which refine prior writings, to a thesis project written with a faculty

mentor. Dr. McCollum-Clark said that individual projects like those are great for English students, as they enable them to "pursue their own questions in the context of our disciplines and their long histories."

The topics of departmental theses and other research projects can be quite varied. For instance, Dr. Corkery recently completed a collaboration in which his student used discourse over racially focused films to see how white rhetoric had changed from 1915 to 2018. In addition, Dr. McCollum-Clark has been working with a student to explore the bounds of confessional poetry through a creative thesis by researching and utilizing the medium and other experimental poetics. These scholarly and creative works are often shared at state and national conferences, presented at Made in Millersville, or published in various journals both on and off campus. ♦

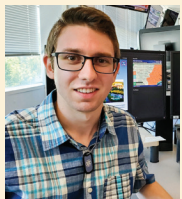


Students in Environmental Advocacy Writing with Dr. Mando embark on a research journey in preparation of their "Susquehanna Stories". (Photo taken October 2019)

SCHOLARSHIP DURING COVID-19

Pursuit of Scholarship and Excellence

The past several months have been defined by the ongoing global pandemic and the subsequent restrictions. This has not, however, stopped Millersville University students and faculty from continuing their pursuit of scholarship and excellence.



Adam Weiner '20, a meteorology graduate from the Honors College, was able to make good use of his time during the pandemic to further his research. With more free time due to the cancellation of events, Weiner was devoted to his thesis, titled "Improving Tornado Watch and Warning Lead Time: A Case Study of the 25 April 2014 Severe Weather Event in Eastern North Carolina." He accessed information online and was able to keep up weekly meetings with his thesis advisor, Dr. Sepideh Yalda, over Zoom. He defended his thesis on Zoom in May, and dozens were able to attend his defense, including committee members, other faculty, students, alum and even professionals in the field. ♦



Dr. Brent Horton, assistant professor of biology, noted that "despite the limitations imposed by COVID-19, faculty and students have, in many cases, been able to make admirable progress in their research." He added that a number of seniors have still defended their Honors theses during the pandemic, while faculty—including himself and a Millersville alum—have had time to revisit and publish old data to address or present new questions in their field. ♦



Kristen Hart '20, an Honors College graduate with a major in speech communication and a minor in graphic

communication technology, made the best of the restrictions. Hart said that the cancellation of various events gave her "ample time to solely dedicate to focusing on my research and writing." She also said that defending her thesis over Zoom allowed her to be surrounded by support from her friends and family as well as committee members. ♦



Benjamin Fellman '21, a meteorology student and tennis player at Millersville, said that he "made the most of it" when it came to his current research project. Although he was unable to go to Florida like originally planned, Fellman appreciated the dedication of Millersville faculty in making sure he had what he needed. As an athlete, the loss of the fall 2020 season made him realize the need to appreciate every moment. ♦



Dr. Steven Kennedy, associate professor of organic chemistry, offered insight on how lab-based sciences are handling the pandemic. He said, "The majority of our work ... must happen in the research laboratory." While the lab work is put on hold, undergraduate students will continue to review the appropriate literature over the fall semester. ♦



Noah Manno '23, a music major in the Honors College, explained how the skills he was learning at Millersville allowed him to be productive during the pandemic. Working with the Research Fellows Program, Manno started a project on musical theater composer Stephen Sondheim's works. This led him to the discovery of a wide range of resources at Millersville University that allowed him to

continue his research and organize, edit and produce a Virtual Choir rendition of Simon and Garfunkel's "Bridge over Troubled Water" to bring some joy to those who need it during these times. ♦



Dr. Karen Rice, the chair of the School of Social Work, talked about needing to adapt to the new environment. "For some faculty, the pandemic has not affected their research.... However, for many of us, there has been an impact due to the type of research we conduct," she said, while students would be able to continue their research with online data collection through Qualtrics. Rice also explained how campus programs meant to stimulate consciousness and foster inclusiveness needed to be reimaged in a virtual medium. ♦



Susan Lloyd '20, a secondary mathematics education graduate from the Honors College, finished her student-teaching experience during the pandemic. She relished the opportunity to learn in such a unique way as the statistics classes she taught moved online. The experience allowed her to learn to present information virtually in a way which was accessible to her students while keeping up with her peers and growing and improving as an educator. Lloyd's hard work, persistence and innovation exemplify her belief that "Millersville students are resilient." ♦

MADE IN MILLERSVILLE



Made in Millersville is an annual event that has been hosted by Millersville University since 2014. Typically, student presenters set up presentations and

posters in the McNairy Library that display various scholarly and creative projects to other students, faculty, community members and reviewers. The goal of Made in Millersville is to provide students with a low-risk environment to share their work, receive valuable feedback, and create future opportunities for research and conference presentations.

Due to the shutdowns imposed by COVID-19, Made in Millersville had to look a little different this year. Dr. René Muñoz, who has overseen the conference since its inception, said that even with

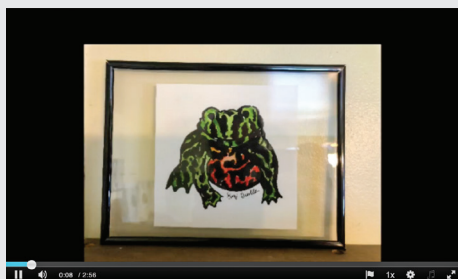
only a handful of weeks to organize the event online, the benefits to the students were too great to lose. In addition to the goodwill the event fosters with the community, Dr. Muñoz pointed out that “a student can graduate from Millersville University with not just a transcript, but with a resume.” Made in Millersville allows students to present their work, creates enthusiasm both on and off campus, and shows students great ways to become engaged in the community. Dr. Muñoz added that “higher levels of engagement lead to higher graduation and retention rates.”

After deciding to hold the event, the Made in Millersville team had to figure out how it would proceed. “The challenge, then, was to create the vehicle for presentation,” said Dr. Muñoz. In addition, they had to make sure students and faculty could still present and that their student interns could continue their work for Made in Millersville. The team surveyed all the

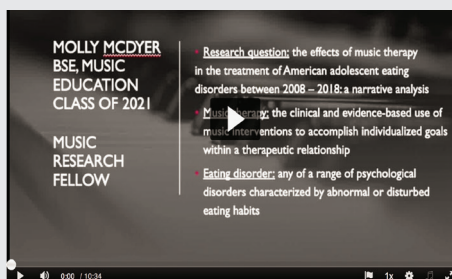
Thriving during COVID-19

student presenters on their presentation preferences, eventually deciding on asynchronous archived videos hosted by Millersville University. This option avoided logistics issues with hosting a synchronous event and came with the added benefit of letting the students use these videos for research, employment or postgraduate applications.

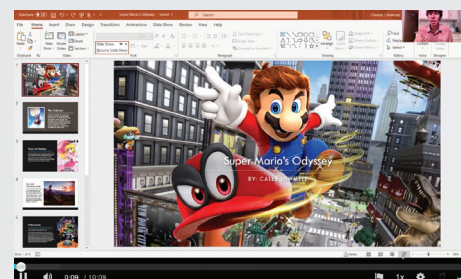
Dr. Muñoz looks forward to Made in Millersville 2021. “I think we need to have plans in place now, not just for this year but for every year going forward, about how to do this in a format other than the live format,” he said. “How do we get people to log in and watch it? How do we engage the community?” With these major questions on his mind, Dr. Muñoz is planning to work from now until April to make sure Millersville University has a Made in Millersville we can all safely enjoy. ♦



PRESENTATION: Paint What You Love
By Marie Dunkle



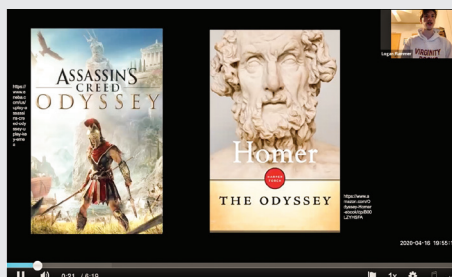
PRESENTATION: Music Therapy and Eating Disorders
By Molly McDyer



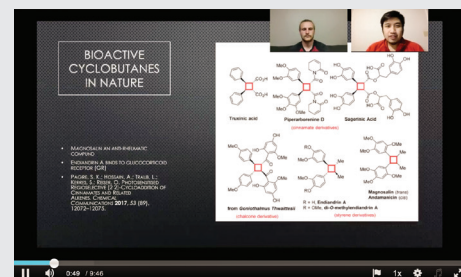
PRESENTATION: Super Mario Odyssey
By Caleb Himmele



PRESENTATION: The Enchantment of the Ocean
By Kaylee Keech



PRESENTATION: Homer's The Odyssey in Assassin's Creed Odyssey
by Logan Flammer and Allison Krantz



PRESENTATION: Photoredox Catalysis
By Chanvebol Yun and Nathan Maynard

To view all video presentations, please visit www.madeinmu.education/mim-2020-sched.

FACULTY-STUDENT COLLABORATION

Research on Indoor Air Quality



Jessica Whittemore '21, Honors College, chemistry major and recipient of various awards such as the

CRC Chemical Achievement Award, Gerald S. Weiss Endowment and ACS Analytical Award for accomplishments in introductory chemistry and inorganic and analytical chemistry, is conducting research for her University Honors thesis with **Dr. Daniel Albert** to analyze gas-phase emissions from direct and indirect contact reactions relating to indoor air quality.

Last spring, Whittemore was accepted into the 2019 program Murley SURF (Summer Undergraduate Research Fellowship), which allowed her to participate in a research fellowship with Dr. Albert as her faculty mentor sponsor, then engage in a project entitled "Gas-Phase Reactivity on the Decomposition of Cooking Oils." After beginning his research related to indoor air quality as a part of a summer faculty-

student research mentoring program, the Research Mentoring Initiative, sponsored by the President's Commission on Cultural Diversity and Inclusion, Dr. Albert was approached by Whittemore, and together they continue to push the project forward.

Through experimentation with direct and indirect contact, Whittemore is researching how various activities can change the composition of indoor air, specifically focusing on the interactions between common household cleaning products and vegetable oil. Dr. Albert explains how this topic is traditionally overlooked and underresearched compared to the health outcomes of outdoor air quality.



time at Millersville University, and that "student-faculty undergraduate research

Dr. Albert states that working with students on research projects is a highly rewarding part of his

has the potential to be one of the most impactful experiences for students." In light of the experience so far, Dr. Albert has enjoyed working with Whittemore, and said that she is "hardworking, insightful and creative." Her research has been presented at regional and national conferences, which has given her the ability to engage with a broader community.

Further expanding on Whittemore's achievements, she earned second place at the UMBC Undergraduate Research Symposium in the Biological and Chemical Sciences, she is a recipient of the Class of 1947 Endowment and of the Certificate of Achievement from the Honors College, and she was recently inducted into the honors leadership society, Omicron Delta Kappa. ✦



Dr. Khiterer's Most Recent Student-Collaborated Publication



Dr. Victoria Khiterer, Associate Professor of History, has a Ph.D. in modern Jewish history from Brandeis University (2008) and a Ph.D.

in Russian history from the Russian State University of Humanities (1996). Her area of specialization is modern Russian, Eastern



(history), the book *Aftermath of the Holocaust and Genocides*, which features an introduction written by Dr. Khiterer.

European, and Jewish history, and the Holocaust. She has recently edited and published, with Millersville University graduate student **Erin Magee**

Aftermath of the Holocaust and Genocides includes 13 chapters that are based on selected presentations from the 2016 and 2018 Millersville University Conferences on the Holocaust and Genocide. The volume includes scholarly articles on recently discovered archival materials and provides new approaches to research of the Holocaust, the Armenian genocide and the Holodomor (the famine in Ukraine in 1932-33). Dr. Khiterer describes the book as one

MU ALUM PROFILE

that “illuminates unknown aspects of the aftermath of the Holocaust and genocides, and discusses trials of Holocaust perpetrators, commemoration of the victims, attempts to revive Jewish national life and outbreaks of post–World War II anti-Semitism.” The volume also analyzes the representation of the Holocaust and genocides in literature, press and film.

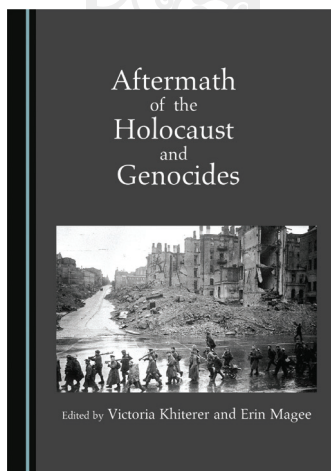
Dr. Khiterer is now working on her next book, *Echo of Babi Yar: Commemoration and Memorialization of the Holocaust in Kiev*. She believes that “understanding the commemoration and memorialization of the Holocaust in Babi Yar helps bring to light many important processes in the Soviet Union, such as state and popular anti-Semitism, state denial of the Holocaust and public resistance to this denial.” This book will also address the problems of the commemoration and memorialization of the Holocaust in modern Ukraine, other countries of the former Soviet Union, and Eastern Europe. Dr. Khiterer’s monograph will be the first scholarly book on this topic.

In the past, Dr. Khiterer has published three volumes of the proceedings of the Millersville University Conference on the Holocaust and Genocide. Each time, she involved students in editing the volumes because she feels it is “an excellent opportunity for them to have editing experience and to be part of publication of a book by the time of their graduation.” Dr. Khiterer emphasizes that Erin Magee, who graduated in May 2020 with a M.A. in history from Millersville, provided great help in editing the book.

Magee felt that working with Dr. Khiterer and the many others who contributed to the book was a privilege, and that “her work is a fantastic addition to the existing Holocaust and Genocide scholarship.” In regards to student scholarship and research, she additionally states, “[they have] been such a large part of my education at Millersville and have provided me with the skills and

experience that I’ve been able to apply to my own career.”

Dr. Khiterer further believes scholarship and research are the most interesting activities in her life, and she hopes to pass on to students her interest in history and provide them with the necessary knowledge and skills they will need for their future careers. Two of her past student co-editors were accepted to Ph.D. programs, and two others found jobs in their fields. Dr. Khiterer says that she is “very proud of [her] student co-editors, [and is] happy that publication of the books helped them to succeed with their careers as historians.” ♦



Alum Receives Millersville University’s Breidenstine Thesis Award



Adam Weiner '20, Honors College, magna cum laude with a Bachelor of Science in meteorology and minors in mathematics and environmental

hazards and emergency management, earned the A. G. Breidenstine Award for having submitted the most outstanding thesis at Millersville University for 2019-20.

Awards Weiner earned from Millersville also include the Susan P. Luek Honors College Graduate Study Award, the Henry Franklin Bitner Science Award, the Paul and Caroline Beideman Honors College Fellowship, the Enrico L. Quarantelli Award for excellence in emergency management, and membership into the Honor Society of Phi Kappa Phi and the National Leadership Honor Society of Omicron Delta Kappa.

External awards and honors Weiner received include the Phi Kappa Phi Graduate Fellowship, the National Collegiate Honors Council Portz Grant, the Michael A. Roberts Jr. Scholarship from the American Meteorological Society, the Tim Samaras Memorial Scholarship in Research Meteorology from the Central Iowa Chapter of the National Weather Association, the NOAA Ernest F. Hollings Scholarship, and the Arthur C. Pike Scholarship in Meteorology from the National Weather Association.

Weiner will continue his education this fall as he pursues a M.S. in atmospheric science at the University of Alabama in Huntsville. ♦

COMMENTARY

Dr. George Drake on Lifelong Learning

DEAN OF THE COLLEGE OF EDUCATION AND HUMAN SERVICES



The academic programs in Millersville University's College of Education and Human Services (EDHS) are designed to provide students with many opportunities for

growth and development, and to prepare them for careers in the "helping" professions of social work, psychology, wellness and education. EDHS graduates are able to enjoy fulfilling careers because they have gained ample knowledge critical to their chosen professions, honed the skills needed to be successful in those careers, and reflected upon the professional dispositions that help guide ethical decision-making and professional practice.

Central to the strong preparation provided by EDHS programs is an emphasis on the importance of becoming a lifelong learner. To be sure, achieving initial knowledge, skills and dispositions in the context of a degree program is important to help one get started in a professional position. But in order to remain effective throughout a career, one must form the habit of continuously learning new knowledge, gaining new skills and reflecting on the effectiveness of one's work. There are always new things to learn, reflect upon and place into one's toolbox of professional practice.

EDHS faculty prepare students to become lifelong learners in at least three important ways. First, they help students develop durable skills in critical thinking, inquiry, information literacy, problem-solving, collaboration and the ability to communicate effectively. Second, they approach teaching in the university classroom as true teacher-scholars. Finally, they strive to engage as many students as possible as collaborators in their own research projects. Let me take a moment to briefly unpack each of these.

First, as I noted, a lifelong learner is someone who is continuously open to learning new facts, developing new skills and entertaining new perspectives. When

Millersville graduates have learned, by virtue of their degree programs, to continuously ask questions and seek new facts, to examine new information with a critical eye in order to evaluate its veracity, and to use the new information to advance the human condition, it is clear that a sense of curiosity has taken hold—one that is emblematic of a lifelong learner.

Second, faculty members who conduct original research in the context of a scholarly agenda are seeking to add new knowledge to their discipline's body of knowledge. When they infuse what they have learned through their scholarly research into their classroom teaching as true teacher-scholars, they are helping to bolster the knowledge and skill bases of their students. By engaging students in the classroom in discussions of their scholarly work, they are integrating teaching and scholarship and providing a model of inquiry for their students designed to inform and prepare them to be lifelong learners.

Finally, when faculty members collaborate with students in the process of conducting original research, they are providing a strong context for students to become lifelong learners. Involving students in faculty research is a high-impact practice upon which Millersville University places a great value. The Millersville University Mentored Undergraduate Summer Experience is an important example of a formal research collaborative between faculty and student. Many other examples may be found, however, include faculty-student collaboration in labs and field studies, co-presenting the findings of research at peer-reviewed professional conferences and meetings, and co-authorship of published research articles.

In my opinion, one of the most important outcomes of a Millersville University education, regardless of major, is the development of habits of lifelong learning. As a dean of an academic college, I am pleased to see the myriad ways our community works together to achieve this outcome for our students. ♦

NEWSLETTER STAFF

Student Editor:

Jackson Fogel



is a sophomore at Millersville University working towards an English B.A. and a history minor, with interests in Spanish, linguistics and

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Leah Freeman



is a junior at Millersville University who is striving toward an English B.A. with a concentration in writing studies. Her minors include linguistics ESL

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HONORS COLLEGE