Students send plasmids to space on NASA rocket

By Sarah Vickery, College of Letters & Science

At 5:29 a.m. on June 21, before the sun had even reached the horizon, a NASA suborbital sounding rocket blasted off from the Wallops Flight Center in Virginia, reaching more than 70 miles above the Earth before it landed by parachute in the Atlantic Ocean. It carried a precious payload: the research project of UWM’s Students for the Exploration and Development of Space (SEDS) team.

The launch was part of NASA’s and the Colorado Space Grant’s RockSat-C program. For a fee, NASA and allow student groups to design their own experiments and send them up on one of the space agency’s rockets. The launch takes place during NASA’s annual Rocket Week, where students from across the country gather to present their experiments before their projects take off.

“Meeting all the other RockSat teams was a blast,” said Physics major Kaitlin Krause, who also runs the UWM SEDS Instagram page (https://bit.ly/2IrTegH).

“Learning about all of the different projects happening and the different perspectives was eye-opening. We definitely found inspiration for the coming years, such as working towards a more complicated payload. It was great learning experience, and just plain awesome to be able to walk around a NASA facility talking to actual rocket scientists.”

To watch a video of the launch, visit https://bit.ly/2K7A59H.

Getting started in RockSat-C

When microbiology major Ryan Kisiolek attended Rocket Week two years ago, “There was somebody doing a biological experiment, and I thought, that is so cool! We have got to do that,” he recalled.

Kisiolek, a student at UW-Sheboygan at the time, began knocking on doors to find funding for his own project. NASA charges roughly $7,000 to reserve space on the rocket, and the students also have to buy their materials and pay for travel to Wallops to attend the launch.

Kisiolek joined forces with Physics major Bob Aloisi, and, with several teammates, they procured the necessary funds, designed their experiment, and attended the 2017 Rocket Week launch.

When Kisiolek and Aloisi transferred to UW-Milwaukee, they added some new faces. This year’s UWM SEDS team includes Kisiolek and Aloisi, Azia Barner (Physics), Dan Cairns (Mechanical Engineering), Josh Janezick (UW-Sheboygan, Mechanical Engineering) Kaitlin Krause (Geology and Physics), Connor Nethen (Electrical Engineering and Physics), Natasha Scannell (Electrical Engineering), and August Schuett (Physics).

This year, their work was funded largely by a grant from the Wisconsin Space Grant Consortium. The team also received funding from the UWM Foundation and the College of Letters & Science, alongside a travel grant from UWM Student Involvement and donations from faculty members in the Biological Sciences and Physics departments.

Continued on page 15
Summer has arrived and it's time to hit the lakeshore for some relaxation and reading. We have a couple of suggestions for your beach reads this year, recently published and both written by UWM alumni.

**The Meadow** by Scott Winkler ('15, PhD English)

Family secrets bubble to the surface against the turbulent backdrop of the Vietnam War in Winkler’s debut novel. *The Meadow* is the story of Walt, a new high school graduate who is hoping to attend college and searching for ways to avoid the military. Although Walt is opposed to the war, his father Otto, a World War II veteran, believes that Walt and his brother Clay should serve their country. Walt escapes the draft when an accident renders him physically unfit for duty, but it comes with a price: Otto has never talked about his own war experiences, but now secrets are exposed, shaking Walt, his family, and the entire town.

“It ends up being a book about moral injury, about dealing with trauma, and about the importance of storytelling and the role that narrative can play in healing and acceptance,” Winkler said.

*The Meadow* began life as Winkler’s PhD dissertation. He chose UWM based on the strength of its creative writing graduate program, and because he could commute to class from Green Bay. Winkler now teaches high school English in Luxemburg, Wisconsin, about a half-hour outside of Green Bay.

His students were a large part of the inspiration for the book; Winkler realized that for most of their lives, the U.S. has been engaged in some sort of military conflict. That in turn made him contemplate the effects of war on soldiers, especially the psychological and emotional impacts of killing. Writers like Tim O’Brien, the author of the well-known book *The Things They Carried*, set during the Vietnam War, also had an influence on his work.

Even as the book grapples with the idea of trauma and war, there’s a little romance and a lot of intrigue.

“It’s a good story. It’s a historical book, yes, but the themes are timeless,” Winkler said. “It’s very much a father/son book, a brothers book, a teacher/student book. It’s a love story. I think everyone is going to find something in there that they’ll be able to connect to.”

Winkler’s book is available on Amazon at [https://amzn.to/2K75Ift](https://amzn.to/2K75Ift).
When people don’t understand their medical test results, “The very first place they go is Google,” said UWM Sociology professor Noelle Chesley.

Armed with that information, Chesley and her collaborators, Psychology professor Hobart Davies and Professor Jake Luo from the College of Health Sciences, saw a golden opportunity. Luo, who specializes in health informatics and big data analysis, began trawling through all of the health questions that people posted on Yahoo! Answers and, with help from Chesley and Davies, began to analyze them. They found many people didn’t understand their test results or were lacking emotional support after a difficult diagnosis.

Using that data, Luo’s in the process of building a cellphone app to help analyze medical test results in a patient-friendly way.

It’s the kind of project that the TecHealth Initiative is all about.

The TecHealth Initiative is part-partnership, part-catalyst with the mission to “harness and develop regional, inter-institutional, and trans-disciplinary strengths to solve problems at the intersection of health and technology,” Chesley said. That means both tackling public health concerns and fostering the university and community partnerships needed to do so. Eventually, Chesley hopes that stakeholders like UWM, the Milwaukee Common Council, the Medical College of Wisconsin, Marquette University, local hospital networks and others might come together to solve healthcare issues under the TecHealth banner.

“We are thinking about generating innovative research by leveraging different people from different disciplines, and then we can form a hub to do this research together,” Luo said.

Founded by Luo, Chesley, and Davies in September 2017, the Initiative was born out of a UWM effort to foster cross-disciplinary collaboration. They were seated together during a UWM Office of Research workshop meant to introduce faculty in different disciplines. The three found they had much in common and began to find ways to work together.

“We do have a few projects with a research focus under the TecHealth umbrella,” said Luo. “For example, I do social media data science analysis. I want to leverage skills from [Chesley] and [Davies] to look into our data based on the research on social media to conduct surveys, which I’m not very experienced at.”

The three have several other TecHealth projects on the horizon, including using big data and technological approaches to research community understanding and concern regarding lead in Milwaukee’s drinking water, and using technology and Google surveys to research how families feel about using algorithms to predict incidences of sexual assault or teen pregnancy.
She was 9, new to the United States, its culture, and the English language, and new to such taken-for-granted things as school.

It was 1980, and Chia Youyee Vang was a Hmong refugee from Laos. Her family had been displaced for months, the result of an attack on their village during the aftermath of the U.S.’s involvement in the Vietnam War. Neither her village nor her refugee camp provided a formal education. Now, in her new hometown of St. Paul, Minnesota, she had classmates.

“All the refugee kids were piled up in these classrooms for English as a second language,” Vang recalls. “Even though we were 9 years old, we were still learning our ABCs.”

Today, she’s a long way from ABCs. A UWM professor of history, Vang is one of the world’s leading experts on Hmong refugees. She’s also one of the first people of Hmong descent to become a full professor at a major research university, a position earned in 2017 after her groundbreaking efforts to document experiences within the Hmong diaspora.

Vang pays particular attention to the ways different refugee populations have adjusted to their new communities and what factors affected those adjustments. “I’ve always been really concerned with people being displaced,” Vang says. “I think about not only what has happened to Hmong people – being forced from our homes and what has happened to us over 40 years – but also the millions of other powerless people around the world.”

In addition to being deeply personal work, her research on Hmong communities informs policymakers attempting to address new refugee crises, such as those in Yemen and Myanmar. It offers lessons in how to better preserve refugees’ cultural and family connections. It’s an academic journey that began in earnest at St. Paul’s Johnson High School.

Vang was one of some 170,000 Hmong displaced to the Western hemisphere in the post-Vietnam War era. About 145,000 of those Hmong refugees found a home in the U.S., while other Hmong communities landed in France, Canada, Argentina and French Guiana in South America.

Newly confident in her language and leadership skills, she was an advocate for fellow Hmong students, especially the newcomers. “When I learned how to speak,” she says, “I spoke.” She asked the principal to provide a room during lunchtime so more established Hmong students could help newer arrivals.

Vang became a multisport athlete and played in the school band – all with her parents’ spirited support. Her dad faithfully attended her swim meets, but he still struggled with English. He’d have to wait for one of Vang’s siblings to translate the announcer’s commentary before jumping up to cheer for his daughter.

When she was a high school senior in 1990, Hmong students organized to win a spot in the Homecoming court, and Vang was elected lady-in-waiting. When the queen was dethroned for disciplinary reasons, Vang ascended to the role.

“The next year, I got to go back to crown the new king and queen,” she says. “That’s my American story.”
Krist Schubilske found her Linguistic research to be eye-opening. Literally.

Schubilske spent her senior year at UWM as a research assistant for Linguistics professor Anne Pycha. Dr. Pycha is looking into false memories and our physiological responses. Specifically, if we think we heard a word but we really didn’t, do our eyes tell the tale?

At the basis of this question is a phenomenon known as false linguistic memory – when we remember hearing a word that wasn’t actually spoken. For example, think of the word “cat”, and then make a list of about 15 words that sound similar – cap, bat, at, cab, etc.

“The idea is that if you play someone that list but not the word it’s related to, people remember about 80 percent of the time that they’ve heard the word ‘cat’, even though they didn’t hear it,” Schubilske said.

That’s because similar-sounding words are stored in the same “file drawer” of the brain.

“During speech perception, our brain is activating a bunch of different words at the same time,” Schubilske said. “When you hear a word, your brain is also accessing the words that sound like it and have definitions that are close to it. With a word like cat, you’d also be accessing words that are in semantic associations, like ‘kitten’ or ‘meow.’”

Studies surrounding false linguistic memories have been done before, but Pycha took the research a step further. Using a machine called an EyeLink 1000 that tracks eye movement, she and her research assistants, Schubilske and another student named Jasen Sonnen, took a careful look at their subjects’ pupils as they listened to the lists of words designed to elicit false linguistic memories. The researchers would play a list of about 15 or so words related to a “critical item” – like the word cat – and then ask their research subjects if they remembered hearing the critical item, though the word had never been played.

Pycha and her assistant were looking at the Old/New Effect. If you hear a word that you’ve recently heard before, your pupil will dilate slightly more than if you were to listen to a new word. They wanted to determine if there was a difference in pupil dilation between real linguistic memories versus fake linguistic memories – old words and new words.

“What we did find is that the pupil actually does dilate slightly bigger for words that you’re having a false memory for,” Schubilske said. “That was really exciting to find because in all the false memory studies that have been done in the past, … there wasn’t the capacity to capture the difference between any sort of response for the real memories and the false memories.”

Pupils dilate due to all sorts of reasons, from light exposure to what researchers term “cognitive load” – some experiments revealed that subjects’ pupils dilated more when viewing a long string of written numbers versus a shorter string.

Only recently have scientists discovered the Old/New Effect.

Continued on page 12
UWM students learn the business behind journalism
By Janet Hundley, RTDNA Region 4 Director

This story is reprinted with permission and originally appeared on RTDNA.org at https://bit.ly/2MWAmKd.

Graduating journalists across the country are scrambling, competing for that first job opportunity. Most are armed with fresh résumés and YouTube or web links directing future employers to their limited work. They have likely interned with some kind of news organization, but still have limited exposure to newsrooms and the business side of news.

You do not have to look far for a headline about media mergers, dropping revenues and in some cases corporate-dictated content. Graduating students may know about newsgathering, but what do they know about the news business as a whole?

UWM journalism instructor Jessie Garcia Marble saw an opportunity. She wanted to give students an eyes-wide-open approach to the journalism business.

An eyes-wide-open approach

“I consider this a master class in television operations. Some universities have TV studios; UWM does not, but even if they did, I feel this takes learning to a new level because you are hearing directly from professionals each week and observing all facets of a real station,” Garcia Marble says. She partnered with WTMJ-TV, the local E. W. Scripps station, for the 2017 and 2018 spring sessions.

During the semester, her journalism class, “The Making of Television News,” ditches the traditional campus classroom to meet in WTMJ’s conference room. The class meets once per week for two hours.

“In order to really show them how a television operation works, we felt we needed to be in the building. There would be no way to schedule our guest speakers by remaining on campus. Plus, we are able to have them watch live newscasts, observe every technical aspect from the control room and beyond, and put what they learn into practice.”

Why it works for students

Each week a different department head gives a presentation to students about their area of expertise, leaving time for Q & A. Students have called it “a second internship,” “an invaluable experience” and critical for their careers.

Guests often come with handouts, PowerPoints and examples of their work, but most importantly, the speakers come armed with real-life experiences. Students learn about budgeting, revenue, programming, sales, promotions, graphics, engineering and all facets of news production and on-air/online presentation.

Homework coincides with that week’s speaker. For example, if the promotions department explains how they write a promo, students will be tasked with writing a successful promo for a different, real-life story.

Students are graded on attendance, punctuality and class participation, as well as weekly homework assignments and a final paper summarizing what they learned each week.

“We have run the class twice now and tweaked it to include even more hands-on learning. On the week that MMJs (multi-media journalists) and photographers presented, for example, students had to shoot, write and edit an entire story as an MMJ, including a creative MMJ standup,” says Garcia Marble.

Continued on page 7
Roads Without Houses by Joseph Rein ('12, PhD English)

If you don’t have time to commit to a novel, you might enjoy Rein’s collection of short stories, each featuring compelling characters who find their lives winding in unexpected directions. The stories themselves intertwine, with side characters in one arc featuring a starring role in other stories.

The tales, told in both traditional formats and as “encyclopedia stories” where the narrative unfolds as though it’s a Wikipedia entry, range from one girl’s struggle with an eating disorder to a marriage built on a single lie.

Rein’s particularly proud of that last one. It follows a man who witnesses a near hit-and-run. He recounts the incident to his girlfriend – or at least, the version he wants to pretend happened, where he stepped in and became a hero. His girlfriend had been contemplating leaving, but his act of (supposed) heroism changes the trajectory of their relationship.

“That story was born out of an experience I had at the airport,” Rein recounts with a laugh. A fellow passenger assumed that Rein, dressed in a suit for a job interview, was an important businessman. Rein was tired, “So instead of correcting him, I went along with it. He thought I was something I wasn’t. He even went so far as to ask me what I did. I said bonds. That’s where the seed of this story started.”

Many of the stories draw on Rein’s experiences, and many are set in Wisconsin. Like Winkler, Rein chose UWM for the strength of its creative writing graduate program and also because he wanted to return to his home state after attending Nebraska for his Master’s degree. That love of the Midwest is reflected in book.

“Anything that gets written here often gets labeled as ‘regional,’” he said. “One important thing, I think, is to keep reading Midwest authors. Not only is the place as good, but the writers are just as good and talented and have just as universal of themes as literature from the coasts.”

Rein’s debut collection is available on Amazon at https://amzn.to/2K7Eoh5.

Business of journalism continued from page 6

Students comment nearly weekly about how they learned new things about television that they never knew, and how the experience has opened their eyes to the possibility of different avenues in TV. Some who thought they only wanted to be on air discovered producing, marketing or sales, and many followed up with emails to the presenters asking to learn more.

How it works for the station

Garcia Marble works with WTMJ-TV’s Production Supervisor, Ryan Scott, to create the class, which is only offered during the spring semester each year so as not to overburden the station. The two sit down a few months before the semester starts to map out what areas they think would be valuable to the students. Scott then sets the schedule with all needed parties so they know well ahead of time when they’re due to speak to the students - and the time spent by presenters counts as Employee Engagement Opportunities benefitting the community. Garcia Marble plans homework assignments with input from Scott and presenters.

The class is deliberately timed to run from 11:15 a.m.-1:15 p.m. so that students can be there over the noon newscast. The only times that changes is when the class watches “The Morning Blend,” an advertiser content driven show, which runs from 9-10 a.m., and during Engineering and Production week.

During Engineering and Production week, the class conducts two mock newscasts after the station’s noon newscast. Students are randomly assigned duties ranging from anchor to prompter to live trucks. They work alongside a professional to perform their duties, using a segment from a previous day’s show as the script.

Working with an active newsroom does come with uncertainty. Everything in the class is subject to speakers’ availability that could be changed or canceled due to breaking news. However, the class roster has been full with a waiting list each time.
Letters & Science bids a fond farewell to retirees

The College of Letters & Science wishes a very happy retirement to some beloved members of our faculty and staff. Combined, they have more than 600 years of service at UWM.

Each of our retirees was honored at a ceremony in May where colleagues and friends gathered to celebrate their achievements over the course of their careers.

This year’s retirees include:
- Swarnjit Arora (Economics)
- Judith Beall (Religious Studies)
- John Blum (21st Century Studies)
- Linda Brazeau (Art History)
- Nancy Burrell (Communication)
- Dashan Fan (Mathematical Sciences)
- Denny Fischer (English)
- Don Green (Sociology)
- Homer Hruby (L&S Information Technology)
- Marc Levine (History)
- Tzu-Chu Lin (Mathematics)
- Barbara Merten-Brugger (Foreign Languages and Literature)
- Ian Musson (Mathematical Sciences)
- Jeffrey Perso (English)
- Andrew Petto (Biological Sciences)
- Margaret Pulkownik (WUWM Radio)
- Donald Robertson (Physics)
- Pamela Schaefer (Psychology)
- Steven Schwengels (Mathematical Sciences)
- William Van Pelt (English)
- Jane Witten (Biological Sciences)

Above: Chair of the Art History Department Derek Counts reads a retirement resolution honoring Linda Brazeau, who served as the director for the Emile H. Mathis Gallery and retired after 44 years of service.

Left: Denny Fischer, an Assistant Professor in the English Department, stands to be recognized for his length of service. Fischer is the longest-serving retiree with 50 years of service at UWM.

Above: Interim Dean of Letters & Science Dave Clark congratulates Senior Lecturer in English Jeffrey Perso on his retirement. Perso worked for 18 years at UWM.

Left: Economics Professor Swarnjit Arora says a few words at the Letters & Science Retirement Reception. Arora retired in January after working at UWM for 46 years.
Program Spotlight: Urban Studies

Urban Studies’ 23rd Annual Student Research Forum showcased student research, a panel of environmental justice case studies from Milwaukee, and scholarship on gentrification.

On April 27 in the UWM Union Alumni Fireside Lounge, Urban Studies majors enrolled in the Capstone Seminar presented their semester-long research during a juried poster session along with graduate students in Urban Studies and several other graduate programs.

Christina Theobald (Urban Studies) won the Undergraduate Best Poster award for her poster, “Creatives in the City: Examining the Relationship between Art, Place, and Development.”

Isabella Riecke (Urban Studies) received the Graduate Best Poster award for her poster, “The Role of Lead and Local Social Movements in Framing the Remediation of Milwaukee’s Lead Laterals.”

PhD student Thomas (Tony) Gentine (History) received the Urban Studies Award for Best Paper for his paper, “Contesting the Flow of the Milwaukee River.”

Part of the afternoon event included a panel on Environmental Justice drawn from two new courses: Freshwater 650: Water and Environmental Justice, and Architecture 790: Practicum in Buildings-Landscapes-Cultures. Panelists included professors Ryan Holifield (Geography and Urban Studies) and Arijit Sen (Architecture and Urban Studies) and some of their students from the two classes (Angeline Koch, Michelle Soderling, Gonçalo Borges, Katherine Kocisky, and Mania Taher). Holifield and Sen started off the panel by discussing different approaches for examining environmental justice cases and how to frame those case studies, with students presenting on the different cases around Milwaukee such as the I-94 expansion or Waukesha’s return waste water plan.

This year’s keynote speaker was Dr. Janet L. Smith, Associate Professor of Urban Planning and Policy at the University of Illinois at Chicago. She is co-director of the Nathalie P Voorhees Center for Neighborhood and Community Improvement at the University of Illinois at Chicago. Dr. Smith is the co-author (with John Betancur) of the book, Claiming Neighborhood: New Ways of Understanding Urban Change (University of Illinois Press, 2016), which examines neighborhood change in relation to accumulation patterns and creative destruction tendencies across the city.

Her talk, “Who Can Live in Chicago (or any city)?” focused on these processes and redevelopment pressures that make cities unaffordable and lead to gentrification. A reception followed the address.
Men are bombarded with societal messages that they must look muscular and fit to be attractive, messages that can have devastating consequences, said Daniel Stein (’08, BA Communication) on MensHealth.com. [https://bit.ly/2kxCpaB](https://bit.ly/2kxCpaB)


A 50 mm lens captures so much more than a photographic image, PhD student Allain Daigle (English) mused in The Atlantic as part of the publication’s “Object Lessons” series. [https://theatln.tc/2IgAJ3y](https://theatln.tc/2IgAJ3y)


Native Americans were studying the night sky long before European settlers arrived in America, Jean Creighton (Planetarium) said on WUWM’s Lake Effect show. [https://bit.ly/2Jdq4Xg](https://bit.ly/2Jdq4Xg)

It’s not science fiction – one Milwaukee family plans to cryogenically freeze themselves in hopes of returning to life in the future. Paul Brodwin (Anthropology) told CBS 58 News to expect more discussions on similar topics as technology progresses. [https://bit.ly/2JbvNwy](https://bit.ly/2JbvNwy)


LGBT activist Gary Hollander (ret., Psychology) spoke about the difficulties he faced growing up poor and gay in Milwaukee at an oral storytelling event in June, which was part of the “50-Year Ache” series. [https://bit.ly/2LFxY89](https://bit.ly/2LFxY89)

The earth’s history from 200 million years ago has lessons for today, John Isbell and his students, Kate Pauls and Nick Fudorchuk (all Geosciences) said on WUWM. [https://bit.ly/2xGdqv7](https://bit.ly/2xGdqv7)

An international team of researchers led by Marius Schmidt (Physics) has found a way to investigate how drug-resistant tuberculosis inactivates an important family of antibiotics, Phys.org reported. [https://bit.ly/2kK5z6s](https://bit.ly/2kK5z6s)


The Milwaukee Police Department must confront its history of racism to improve its relationship with the African American community, says PhD student Will Tchakirides (History) in an editorial printed in the Chicago Tribune. [https://trib.in/2sFuuM7](https://trib.in/2sFuuM7)

Marc Tasman (Journalism, Advertising, and Media Studies) kicked off a busy summer with six art shows in six weeks beginning the first week of June. A full schedule of Tasman’s appearances is available at [https://bit.ly/2sBxbOA](https://bit.ly/2sBxbOA), including information on the show “Look Here!” at Villa Terrace running June 28-Sept. 16. The Look Here! Show is an experiment initiated by the UWM Libraries encouraging artists to create works from the Libraries’ digitized cultural heritage holdings.

Continued on page 11
In the Media

Celeste Campos-Castillo (Sociology) delivered the keynote address at the Wisconsin PATCH (Providers and Teens Communicating for Health) Cultural Competency Summit in June. She spoke on “The Role of Privacy and Technology in Adolescent Health” in a talk that discussed how teens care about their online privacy, especially from their parents, drawing on the “Arkangel” episode from Black Mirror as an example.

This year’s Milwaukee Polish Fest featured some distinguished speakers, including Neal Pease (History), who discussed U.S.-Polish relations over the last century; Helena Pycior (emeritus History), who explained Polish scientist Marie Curie’s legacy; and Don Pienkos (emeritus Political Science) who explained Poland’s “rebirth” and key figures.

Local elections are often stepping stones for immigrants or first-generation Americans who want to run for higher office, Paru Shah (Political Science) told Voice of America.

The growing season is arriving earlier each year, and it’s only one sign in a very long list of climate-driven changes to the natural world around us, Mark Schwartz (Geography) said in an Associated Press article. The article was printed in media around the country, including The New York Times (https://nyti.ms/2MaqwTZ), the Denver Post (https://dpo.st/2JVZnaw), and the Miami Herald (https://hrld.us/2tdIwFY).

UWM is losing talented faculty when they are recruited to other universities, William Holahan (emeritus Economics) lamented in an op-ed for UrbanMilwaukee.com, but contended it’s not too late to stop the “brain drain” if stakeholders act quickly.

Scientists in the Cultural Resource Management program under the auspices of the Anthropology Department have finished excavation of Native American artifacts and burials at the site of a proposed facility for Oshkosh Corp, the Oshkosh Northwestern reported.

Video Stories: Short Talks, Big Ideas

In February 2018, UWM Distinguished Professors delivered powerful lectures that have the potential to reshape how we see and understand the world in 2018 - each in less than seven minutes. Hear from Distinguished Professor of History Merry Wiesner-Hanks and Distinguished Professor of Philosophy Robert Schwartz below!
Alumni Accomplishments

Kerim Keser (‘03, MA Economics) joined the global advising firm of Duff & Phelps as a managing director and head of the German Transfer Pricing practice. Keser has 15 years of experience in advising and auditing, and will work out of the firm’s Munich, Germany office. https://bit.ly/2LkUtij

Tim Elliott (‘07, BA Journalism, Advertising, and Media Studies) announced that he will become the new co-anchor of NBC 15’s “The Morning Show,” which airs each weekday from 4:30-7 a.m. Elliott leaves his reporter position at WISN 12 News in Milwaukee to return to his hometown television market serving Janesville, Madison, and the surrounding areas. https://bit.ly/2JlQ1R8

Jeff Winke (‘76, BA Communication) has hands that are registered weapons, is the author of children’s book, and was featured in the Arts and Entertainment section of OnMilwaukee for his unique job as the doorman of Caroline’s, a jazz and blues bar in the Third Ward. https://bit.ly/2sDdPcb

Zack Eberhardt (‘09, BA Sociology) is converting an abandoned grocery store into eight high-end apartments. Eberhardt is a military veteran turned-real estate developer who was featured in the Milwaukee Journal Sentinel for his latest project. https://bit.ly/2JgL2Ba

Danielle Shelton (‘97, BA International Studies) was the first to announce her candidacy for the 2019 spring election for the Branch 40 judgeship, a seat previously held by Rebecca Dallet, who was elected to the Wisconsin State Supreme Court this April. Shelton is an Assistant Public Defender. https://bit.ly/2JpQWA7

Richard Taylor’s (‘77, BA Art History) work is on display in the “Altered Scale” exhibit at the Cedarburg Art Museum in Cedarburg, Wisconsin. Some of his standing sculptures invoke chess symbolism while others represent his appreciation for jazz and composition. https://bit.ly/2JxTQWE

People in print


False linguistic memories

continued from page 5

“To my mind, this deepens the mystery, because, unlike remembering a long string of numbers, hearing an old word should not be a task that requires a lot of cognitive load. Given this, I’d venture say that there is not even any agreement on what cognitive factors cause the pupil to dilate,” Pycha said.

In the future, Schubilske envisions that this research will not only help us understand how our brains decode language, but it might also open a new avenue for exploring diseases like Alzheimer’s and dementia.

Schubilske and Sonnen presented their research at the UWM Undergraduate Research Symposium in April this year. For Schubilske, it was the culmination of one of the defining elements of her undergraduate career.

“I am privileged to go to a top-tier research university,” she said. “It was by far the best experience of my undergrad career to do some hands-on work and apply theory in actual research settings, and get to practice with other people.”
Laurels, Accolades, and Grants

Liam Callanan’s (English) newest novel, *Paris by the Book*, was named an Editor’s Pick for a top summer read by the Milwaukee Journal Sentinel. [https://bit.ly/2IZ2xdm](https://bit.ly/2IZ2xdm)

Student journalists from the Journalism, Advertising, and Media Studies Department were recognized for their talent and efforts when the student-run publication *Media Milwaukee* was named a national finalist for “Best Independent Online Student Publication” in the Society of Professional Journalists 2017 Mark of Excellence Awards. In addition, student journalists Jenna Gaidosh, Tisia Muzinga, Stevan Stojanovic, and Jenna Graham produced the videos covering the Women’s March on Madison, Wisconsin, that were named a national finalist in the “Television General News Reporting” category.

Student Jameelah Love (Political Science) was the speaker at the sixth annual Foster Youth Graduation Ceremony honoring foster children who recently graduated high school. The event was hosted by Wisconsin First Lady Tonette Walker and Department of Children and Families Secretary Eloise Anderson. Love discussed using her past experiences to bring positive changes to foster care on a local and national level. [https://bit.ly/2MFsj4x](https://bit.ly/2MFsj4x)

Graduate student Kourosh Maboudi (Psychology) is a co-first author on a paper to be published in the journal *eLife*. Researchers from Rice University and the University of Michigan used machine learning models to study sequential patterns in the brain to understand how memories are sorted and stored during periods of rest, as detailed in the paper.

Student Jonathan Zagrodnik (Film Studies and History) received a competitive scholarship from the Kosciuszko Foundation funded by the National Agency for Academic Excellence that will allow him to study Polish at the Jagellonian University in Krakow, Poland over the summer.

Donna Genzmer (Geographic Information Systems) is the principal investigator for the grant-funded project “The Compost Project: A Systems Approach to Food Waste Composting for Urban Agriculture” which has been awarded a Community-University Partnership Award from the University of Wisconsin-Madison.

TecHealth Initiative

continued from page 3

“The fact that we have a large portion of the population that doesn’t have any sense of the potential power and the potential for misuse of predictive algorithms is the most concerning thing to me. This is already happening,” Davies said.

“This is exactly why social scientists and computational scientists need to work together,” Chesley added.

To address that need, the trio have begun hosting gatherings meant to introduce researchers in all different areas. UWM researchers in communication, marketing, health sciences, sociology, psychology, information technology, and more are periodically invited to attend TecHealth workshops to learn how they can benefit each other’s research efforts.

The last workshop in April focused on the role of big data – extremely large datasets that can reveal complex patterns – in health care and the ways different disciplines can use big data to further research. The TecHealth Initiative will host more workshops in the future focusing on different technologies and building cross-disciplinary collaboration.

Right now, the workshops are funded with monies from an internal grant program at UWM. The challenge, Davies said, will be finding more funding as the TecHealth Initiative grows. There is little support for cross-disciplinary collaboration, but that’s something the TecHealth founders say has to change.

“Making progress on a lot of scientific problems moving forward is going to require team-based, cross-disciplinary collaboration and learning how to leverage different forms of expertise,” Chesley said. “You’re not moving science forward anymore with doing your solitary analysis on your one single project.”

“Primarily we are focused on health care and leveraging some of the social science technology and methodologies to do this research, but we’re open for the whole campus and other disciplines to join us,” Luo said. “We are building the foundation.”
She earned a bachelor’s degree from Gustavus Adolphus College, then attended graduate school at the University of Minnesota. There, she earned a master’s degree in public affairs and a doctorate in American studies. Vang joined UWM’s history faculty in 2006 and established a certificate program in Hmong diaspora studies in 2009. Her current research focuses on Hmong refugee experiences in South America.

Vang is joined on her South American research trips by UWM students. Through extensive interviews, they’ve explored the experiences of Hmong refugee communities in French Guiana and Argentina.

“Not only has Chia’s research expanded both scholarly and popular understandings of diasporic Hmong communities,” says fellow UWM historian Rachel Buff, “but she also has mentored a new generation of scholars in the field she helped invent.”

Vang’s research discovered a divergence in the former refugees’ ability to build community and develop a sense of belonging, circumstances affected by political and economic conditions as well as the sizes of the Hmong population. The findings suggest that resettling people in larger groups and providing support for family connections, cultural preservation and economic stability could improve the long-term well-being of other refugees.

In French Guiana, French missionaries led the resettlement of 1,000 Hmong refugees from 1977 to 1979. “They had to cut down the jungle – just like they did in Laos – and build their own homes,” Vang says.Locals resisted having the refugees there. “There were protests in the streets.”

But because they are French citizens, the Hmong Guianans thrived. Hmong farmers dominate the fresh produce market – a privileged position facilitated by the French government. This relative prosperity has raised educational ambitions for the younger generations. “They don’t send kids to high school in the village,” Vang says. “They send them to the capital or to France.”

The Hmong population that settled in Argentina in the late 1970s was much smaller than the Guianans, only 21 families, and new arrivals were instead dispersed as individual families to farms to work as laborers with no way to communicate. Over the years, families found each other, and some congregated in Rio Negro, a province in the country’s southern region of Patagonia. “They were able to have small Hmong New Year celebrations,” Vang says. “There was a little bit of social support.”

Family reunification has made it possible for some of the Hmong Argentines to immigrate to the U.S., French Guiana or Germany. “The rest are stuck there,” Vang says, and the economic success of their Hmong Guianan counterparts has eluded them.

Today, only about 100 Hmong people remain in Argentina. They are scattered across the country, living mostly as farmers on rented land or laborers in construction or other menial work. But there are other strands of their legacy. At an academic conference, Vang met a descendant of the Hmong Argentine community. She was an education undergraduate student, and on Vang’s next research trip to South America, she had a new interpreter and research assistant.
Cosmic Radiation and DNA

The SEDS team repeated their experiment from last year, improving their design and hoping for more detailed results. They’re researching what happens to DNA when it’s bombarded with cosmic radiation.

“The DNA comes in a non-living form called plasmids,” Aloisi explained. “They’re short snippets of genetic materials that contain genes from different organisms. We use a gene with antibiotic resistance and another gene from a jellyfish that glows under UV light.”

Now that their samples have been recovered from the rocket, the SEDS team will introduce the plasmids to living bacteria. By gauging whether the bacteria reproduce and exhibit the glow-in-the-dark gene and the antibiotic-resistance gene, the team will gain a better understanding of how gamma and beta cosmic radiation affect DNA.

Their preliminary results from last year’s launch were surprising. “What we expected to see was that the cosmic radiation would damage the DNA and so the genes wouldn’t transfer successfully. We’d see fewer glowing colonies of bacteria. The opposite happened. The samples that we flew had more glowing colonies of bacteria,” he said.

Building the payload

The payload – the structure housing the vials of plasmids and Geiger counters, used to measure radiation – had to match exacting NASA standards. The entire payload fit into a custom 3D-printed frame wired like Dr. Frankenstein’s Christmas tree.

The data was collected and recorded on two micro-SD cards – two, because the team learned last year that they had to back up their data collection method when the SD-card broke after the 2017 launch.

Building the payload was no easy feat. “None of us have an electrical background. I didn’t have a clue what I was doing when we were first putting wires together,” said Krause. “It was definitely a lot of learning how it all fits together to make the printed circuit board. It’s been a journey.”

After the rocket was launched and landed in the ocean, the vessel was recovered by a local fisherman, nicknamed “Captain Tom.” The rocket was loaded onto a truck and delivered back to Wallops, where the UWM team picked up their payload. Now that their data is back in-hand, the team will be taking a closer look at the DNA using an infrared spectroscopy microscope. Azia Barner, mentored by Physics professor Carol Hirschmugl, is leading the charge there.

“We’re going to test the plasmids that have been exposed to beta radiation and take stats on them and compare it to non-irradiated samples,” she said. “We’re going to show the difference between the chemical signatures in both. We can look at the chemical structure to see if the plasmids can transform.”

Hands-on research, invaluable experience

Working on the payload has given the UWM SEDS team a thorough education.

“In addition to mechanical engineering, there’s also programming involved. They have to do data analysis and statistics,” said Physics professor David Kaplan, the team’s advisor. “And you get to see the thing you’ve worked on for a year go up and hopefully not explode.”

And, Kisiolek added, their research has potential implications for the medical field. If radiation actually increases the spread of antibiotic-resistant bacteria, hospitals may have to rethink how they sterilize equipment. Aloisi hopes that, after more research, the group will be able to publish a paper with their findings.

Working on a project that flew on a NASA rocket was exciting.

“It was a little intimidating, but it’s been a great experience,” Kisiolek said. “And it’s cool knowing these plasmids went to space.”
Some iconic Wisconsin products, including cranberries and Harley-Davidson motorcycles, are getting caught in a trade war. The European Commission has imposed tariffs on $3.2 billion in American imports, including those Badger-state specialties. Canadian officials announced similar tariffs, targeting $13 billion in American business. China and Mexico already had tariffs in place that raise the price of U.S. imports in both nations. Those levies are in response to the American government's new tariffs on steel and aluminum announced in March.

“A tariff is nothing but a tax that a government imposes on imported goods and services that enter a country,” UWM economics professor Hamid Mohtadi said. “’[Trade] war’ may be a bit of an exaggeration, but in the end everyone loses something because you are shrinking the global economy.”

The first effects have begun to hit. Three days after EU tariffs took effect, Harley said on June 25 that it would move some production of its motorcycles for European customers out of the United States.

In his 30-plus years as an economist, Mohtadi has published extensively on international trade, public policy and emerging market economies. He’ll present his research at forums sponsored by the World Bank and the European Union in July.

Why do you think President Donald Trump has decided to impose tariffs on steel and aluminum?

It’s possible this is the way in which the president bargains. Certainly, China has been abusing its position in the world marketplace. The president may be using tariffs as a way to force China to behave differently. However, this is a bit like Russian roulette; there is a risk in pursuing this kind of strategy. This may actually be a situation where we’re going to be the first to blink.

Politicians and economists who advise them understand the power of tariffs, and their unpredictability. Why use them now?

From an economic point of view, it’s hard to answer that question. Once you start speculating on the optics and politics of tariffs from a noneconomic point of view, you could say that tariffs may be popular with the president’s base, at least in the short run.

Is there long-term economic wisdom to this? There are people in Wisconsin, Pennsylvania, Michigan who might say that over the past 20-30 years of open-trade regimes, like NAFTA, that they haven’t benefited and have in fact been hurt.

It’s equally true that two other things have happened: Many, many industries have expanded, and American consumers have benefitted greatly from lower prices. On a large scale, those benefits far outweigh any employment losses.

What’s the most likely economic effect of these steel and aluminum tariffs?

Tariffs raise prices for consumers. Steel and aluminum are high on the supply chain. There are many downstream industries that use steel and aluminum. Costs related to these other industries will go up, affecting, for example, Harley-Davidson and other manufacturers in Wisconsin. A rise in costs is going to be ultimately counterproductive. We could see a contraction in the economy, leading to layoffs. This is what Wall Street is worried about.

Trade war or retaliation is another risk. It seems that China and other countries are trying to selectively retaliate against American tariffs. They will choose sectors of the economy from states that have voted for the president. In Wisconsin, that could mean cranberries or Harley-Davidson. If this retaliation happens to take place, states like Wisconsin will be affected in all three ways – taxes will go up, downstream industries will contract, and we’ll face targeted retaliation.

Isn’t it also possible that these tariffs will encourage American companies to produce more and better goods and services at home to compensate for reduced imports? Tariffs could lead to job creation, correct?

In these particular sectors of the economy, in steel and aluminum, you could see an expansion. However, the amount of employment generation compared to potential employment contraction is a drop in the bucket when you consider all other steel- and aluminum-using sectors of economy. One study suggests that for every $37.5 billion in tariffs, the U.S. economy would lose 79,000 jobs and growth would decline by 0.1%. The president’s tariffs are several orders of magnitude larger than $38 billion. History bears some witness too: There is a consensus among economic historians that the passage of the Smoot-Hawley Tariff Act of the 1930 exacerbated the Great Depression, even if it didn’t cause it.