

UB INTERNATIONAL

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UB International

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REFLECTIONS ON THE GLOBAL PANDEMIC

By Jean Wactawski-Wende

The COVID-19 pandemic is so far-reaching that it has increased exponentially the world's understanding of how important public health is—especially in global health. It has grown people's knowledge that public health is often working silently behind the scenes, unrecognized. They've learned the vocabulary of the field in our daily news, with terms like epidemiology, transmission rates, infectivity, and slopes of the curve frequently cited.

In general, there is greater interest in and understanding of the value of the field of public health. Three years ago, we developed a new undergraduate public health curriculum.

Up until recently, many high school advisors and students didn't really know what that degree would offer. In the last month, however, we've had a great interest in students' wanting to transfer into the program—about 100 students indicated that in March alone.

Even our graduate programs are seeing an increase in people who are applying to our MPH programs and seeking additional training in the public health field including certificates or even a second degree in public health.

More job openings in the field are also expected. There's growing understanding of the importance of master's- and doctoral-level professionals who can do research to understand this new virus and how we can add layers of prevention in populations.

The same is true of biostatisticians who are developing models to prepare for what's to come with COVID-19 and for how we can prepare to deal with it. Our undergraduates have a great foundation in public health both for careers in the field, or preparation for planning for medical

school, dentistry, nursing, pharmacy and other health professions.

The current pandemic has many lessons for the field. Certainly, having a stable public health infrastructure in place that can respond to public health crises in our communities is critical. That has been evident during the Covid-19 pandemic and in natural disaster events like superstorms that effect coastlines in the United States and around the world.

We can't anticipate every crisis. But in the past 20 years, we've experienced SARS, H1N1, Ebola, and Zika, so our having to deal with the spread of an infectious disease is no surprise. The challenge is that financial support for public health infrastructure at every level has thinned. The CDC (Centers for Disease Control and Prevention) budget has been curtailed; state and county health departments have had their resources reduced over time.

No one could have predicted how fast and difficult this crisis would be, but health departments operating with bare-bones staff and few resources is a real problem.

Also, when we can, we should look back and determine whether we need better systems of detecting outbreaks so we can put interventions in place earlier. When the pandemic began, health departments didn't have the testing available or the infrastructure necessary for contact tracing.

We also need to train a workforce that is prepared for public health crises. It's COVID-19 right now, but we've had 9-11, major storms, food scarcity in parts of the world—these are all factors to which well-trained public health officials can pivot to help respond.

Though many of us now realize that we're all in this together, we must raise awareness in the public about what they can do to make a difference, about how their choices and behaviors can affect the world. We're seeing that notion grow on

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worldwide basis, which has prompted a growth of global citizenship on a scale never before seen.

People now know, for example, that their decision to use personal protection equipment (PPE) affects other people. Taking personal responsibility is the answer to many of these types of events, and our collective efforts at control can be effective whether we're dealing with climate change, a pandemic, or a natural disaster.

As well, we collectively have gained a greater appreciation of the fact that we're a global society. Nothing else including climate change has shown us so dramatically that



Jean Wactawski-Wende

we can ripple the world and the world can ripple back into our lives. People really didn't grasp the concept of a global society—we travel internationally, eat products made in other countries, do business worldwide—but now they get it.

Here at the School of Public Health and Health Professions, the pandemic has forced us to look at our entire curriculum. We offer an excellent course on infectious diseases, and we're developing a course specifically on pandemics and global health response. We're also developing content on how to trace and track cases in our community.

Due to the pandemic, our health professions students have been hit disproportionately in their opportunities for training. Their internships include person-to-person contact, which is difficult to come by right now.

So, the balance we need to strike is between determining the amount of contact needed to learn a profession effectively and reducing the risk of exposure by, for instance,

using personal protective equipment or limiting the number of people who can work in a learning group. This is a key consideration for all of UB's health professions.

The whole university had to abruptly adapt to a distance teaching delivery method this spring. I'm proud to say that everyone adapted pretty quickly. It wasn't perfect, but we managed in about two weeks to take everything we were doing seated, in person, and move to a remote-learning model. We are planning for the fall now. I expect we will have to continue some degree of distancing but hope to get back to a seated environment when we can do so safely.

Our planning for fall features thinking about a "flexible" learning environment that could be a mix of options including in-person learning, synchronous remote learning, a modified calendar, and so on. We'll also work over the next year to train faculty and staff in best practices of remote learning to better support our students. I expect most, if not all, of our lectures will be captured for students needing flexibility given different time zones or other circumstances.

Regarding research, we've had a pause in anything that involves person-to-person contact with human subjects or labs where people are in close proximity. The University is working on slowly getting people back to the labs as we are allowed. We're trying to find ways to reinvigorate our research labs and environments while minimizing exposure.

As a school of public health, we are already researching questions related to COVID-19, from basic science to the impact of social isolation on mental health, lifestyle changes, social disparities and impact, and more. Ultimately, this pandemic will help us think more about prevention as a public health strategy—whether it's using masks, hand-washing, allocating resources, etc.

I feel so proud of everyone who has come together at the university and our school. We're coming together as a group to find solutions. We need to be patient and understanding, and we won't come out of this quickly or easily. But we have it in us to do it if we work collectively, as a team.

One feature of the pandemic, which has direct relevance to The Women's Health Initiative [which Wactawski-Wende has led for the past 27 years] is the impact of social isolation and other factors on our study participants—women currently aged 75 to 100. We all feel the stress around the pandemic, but women tend to be caregivers who take the brunt of it when things like this happen. We plan to evaluate that in WHI women.

Moreover, some of the professions really being pushed during this time are largely female disciplines, such as nursing, occupational therapy and dietetics. These are people who have to go into the field in high-risk environments while likely also dealing with home and care giving.

It's stressful for everyone, but women probably have ad-

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FROM THE INTERIM VICE PROVOST

As Dean Wactawski-Wende writes in our lead article, the global impacts of the COVID-19 pandemic are so extensive that they are difficult to measure and evaluate; her article and those which follow explore UB's impactful engagement with the ongoing crisis.

At this point, I would venture to say that there are few areas that have been as completely disrupted by the pandemic as international education and exchange. While temporary lockdowns idled most businesses, institutions, and other activities, I fear the consequences for international education may prove more longstanding.

We saw the pandemic's mushrooming effects manifest in real time during the spring 2020 semester at UB. Our semester began in late January shadowed by a dawning awareness of the threat the novel coronavirus outbreak in China posed to the rest of the world.

Of immediate concern at that time was the status of our incoming and returning students and scholars from China, whose ability to travel to Buffalo was disrupted by the outbreak in China as well as travel barriers to Chinese nationals at the US border.

Those of us who were in the field twenty years ago were reminded of the SARS crisis, which provoked a large-scale emergency planning effort at UB and many other institutions back in 2003.

At that time, we were especially concerned about the exchange students we had at partner institutions in China, who eventually had to be evacuated from their programs.

Fortunately, the SARS outbreak was quickly contained, and the numbers of cases and deaths were kept low. Despite our preparations, however, it may be said that as a country we did not learn the lessons we should have learned from the SARS experience.

Subsequent potential pandemics—including H1N1 influenza and Ebola—did not become major threats, but they also did not prompt the US and many other countries to be better prepared for the “big one” that global health experts warned was inevitable. Dean Wactawski-Wende's essay is instructive in this respect.

While the number of Chinese students and scholars whose travel to UB at the beginning of this semester was directly impacted ended up being quite limited and we were able to assist them with alternate arrangements, the rapid spread of the virus across the globe rendered the very possibility of student and scholar mobility highly problematic.

Looking ahead to fall, we wondered whether the many students we had recruited overseas would be able to enroll at UB; soon thereafter it became impossible even for our recruiters to travel themselves.

Before international air travel essentially shut down in late March, our university, like most others in the US and

elsewhere, was frantically working to bring home the UB students we had studying abroad this semester. Thanks to our challenging weather, spring is a popular time to study abroad for UB students.

Italy, one of the most popular destinations for US study abroad students and the first country in Europe to be devastated by COVID-19, was hosting a significant number of our students in different programs. So many SUNY students were studying in Italy, in fact, that System Administration chartered flights to bring our students back to New York. These students were obliged to go into quarantine upon their return.

Eventually, both UB and the SUNY System as a whole cancelled all study abroad for spring and then later for summer; nearly all US institutions did the same. Recently, we regretfully decided to cancel our fall programs as well. Never in my experience has study abroad been dealt such a terrible blow, and it must be asked how soon students will be prepared to venture abroad again.

By mid-semester, the outbreak in the US had reached such a crisis point that it became necessary to suspend in-person classes and transition all UB courses to online instruction. We later learned that New York City had become an infection “hotspot” because as a global transportation hub and gateway it received millions of visitors and returning Americans in early 2020 who potentially carried the infection from other parts of the world.

While most domestic students stayed home after spring break, most of our international students remained at UB, concerned that they be able to complete their semester's work but unable in many cases to withdraw from year-long leases for off-campus housing. Due to the loss of campus employment, many of these students struggled to pay their bills. UB answered the call by coordinating the provision for emergency funding to international students.

Indeed, I have been very impressed by the way my colleagues in International Education and across campus have rallied at this time of many challenges. The UB community is demonstrating once again our resilience and capacity for innovation to meet these challenges and carry out our mission.

It is a sad irony that international education is so threatened by a global crisis which demands international collaboration to address it. A go-it-alone approach to COVID-19 will not work for any nation or any institution. Indeed, the future of global public health and of the global economy depends on global cooperation—the sharing of knowledge, resources and technologies.

Both international education and our university have demonstrated the capacity to bounce back after past crises, including 9/11 and the financial crisis of 2008. We can do so again by working together. 🌐

John J. Wood has served as Interim Vice Provost for International Education since September 1, 2018.

UNIVERSITY SUPPORT MAKES SPRING TRANSITION EASIER FOR INTERNATIONAL STUDENTS

By Michael Andrei

Approximately 1,300 UB students—some of whom never left campus during the spring recess—have been living in residence halls and in off-campus apartments for the remainder of the spring semester.

Among them are 338 who hold student visa status and are here as international students.

For some, the pandemic has kept them away from home. Others contemplated a decision to stay or leave, weighing pros and cons: Has their government, or their family, asked them to return home? Is their support network better here or in their home country? What health risks do they face in their home country?

If they were to leave UB—and the U.S.—at the end of

“The world for them has become smaller, quiet and anxious,” Tudini says. “Many families have made sacrifices for their son or daughter to seek better opportunities at UB. So, some students may be weighing emotional burdens as well as logistical ones.”

To provide support to the international students who have remained on campus, International Student Services began offering online advisory services following spring break, processing immigration document requests, responding to emails and providing guidance in academic matters, as well as in students’ personal situations.

“We have two advisers, and we’ve asked students to make appointments,” Tudini says. “We can be available within 24 hours. A lot of the academic and immigration questions we are continuing to provide virtual advice on are very complex.

“We also have a responsibility to have candid conversations with students to hear their concerns about personal matters firsthand, such as difficulties with lease arrangements,” she says. “There are students who are living in off-campus housing who have had to stay because of not being able to sublet in this environment.”

Wood notes that reaching out to students through virtual advisement “provides ISS staff with the opportunity to innovate and provide careful attention to challenges that students are confronting that no one could have foreseen.”

“We have been hearing back from those international students who are here that having access to a support system is making a difference during these difficult circumstances,” he says.

For Renuka Gajanan Khot, a fourth-year student from Pune, India, the biggest concern was whether UB’s international students would be asked to leave campus following the university’s decision to move all classes online. It was a big relief when she learned UB would allow her to stay.

“That made a huge difference for me,” says Khot, a double major in mechanical and aerospace engineering in the School of Engineering and Applied Sciences. “I live on South Campus, and have no family here, so having to leave campus just months before finishing my degree would have created a hardship.”

Khot, who has accepted a job with an engineering consulting firm in New York City, says UB has been very supportive. “This is my home. I have felt very comfortable here.”

Wood says UB had received a letter from the Consulate



the semester, would they be able to return?

“For these students there is a tremendous amount of anxiety about the global uncertainty of what’s going to happen next,” says John J. Wood, interim vice provost for international education. “They are facing a very challenging situation.

“In light of all the uncertainties, it is gratifying that these students have stayed with us and trust UB to continue delivering an excellent educational experience despite the unprecedented circumstances.”

Even under normal circumstances, many international students would not have returned home for spring break, often for financial reasons.

“Now, some are feeling anxiety between wanting to go home and being worried about the consequences of doing so,” says Kathryn Tudini, assistant vice provost for international student services.

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LOCAL EFFORT TO DEVELOP COVID BLOOD TEST HAS GLOBAL IMPACT

UB has joined forces with other Western New York health care and medical research leaders to develop blood tests that uncover hidden information in the cells of those exposed to coronavirus to determine which patients will develop severe symptoms.

Called the Western New York Immunogenomic COVID-19 Study, the new initiative unites three leading regional health care organizations—UB through the Jacobs School of Medicine and Biomedical Sciences and School of Pharmacy and Pharmaceutical Sciences, Roswell Park Comprehensive Cancer Center and Catholic Health—in a project with the potential to advance understanding of COVID-19 and benefit patients worldwide.

Led by Roswell Park, the team will use next-generation sequencing to identify biomarkers of immune response to COVID-19 to predict which patients are likely to progress to severe infection that would require more intensive care.

The goal is to provide medical professionals with a blood test that will help them better prognose and triage patients with COVID-19, potentially saving lives and supporting the most effective and efficient use of resources.

“We believe we can limit COVID-19’s deadly impact by marrying thoughtful strategy to next-generation sequencing technology—an opportunity that we never had before with any previous pandemic, using technology that in a few short years has changed the way we detect, diagnose and treat cancer,” says Kunle Odunsi, deputy director, Robert, Anne and Lew Wallace Endowed Chair in Cancer Immunotherapy, and chair of gynecologic oncology at Roswell Park.

Leading UB’s efforts is Gene Morse, SUNY Distinguished Professor in the School of Pharmacy and Pharmaceutical Sciences, and director of the Global Virus Network Center of Excellence, who is building scientific collaborations that focus on the interface of virus-cancer-immunology research initiatives that will help facilitate the study.

“As director of UB’s Global Virus Network Center of Excellence,” says Morse, “I have the opportunity to work

with local and regional COVID-19 investigators and health care providers, while also facilitating research collaborations with international experts who are confronting the COVID-19 pandemic.”

Catholic Health will join Roswell Park as a clinical site for the study, providing blood from consenting patients who test positive for COVID-19 to be sequenced and analyzed. Thermo Fisher Scientific, which manufactures Ion Torrent gene sequencers and OncoPrint immune-repertoire assays to be used in the study, will provide data analysis and defray the costs of the equipment and chemical reagents that are central to the study.

“No two people are alike—down to our immune cells—and we see this in the way people are responding differ-

ently to infection with COVID-19,” says Carl Morrison, senior vice president of scientific development and integrative medicine at Roswell Park.

“We’ve seen a huge variation in how COVID-19 affects people. Some are not sick at all, some get flu-like symptoms for a few days, and some become very sick and develop symptoms that can become life-threatening.

“What if we could predict when people contract COVID-19 which of these groups they will fall into?”

The research will focus on sequencing immune receptors from both T cells and B cells, the two major types of immune cells the human body enlists to fight off viruses like SARS-CoV-2, the particular coronavirus that causes COVID-19. Morse will examine the blood samples of COVID-19 patients for immune-pharmacodynamic markers to quantify antiviral and immune-therapeutics activity in relation to the stages of COVID-19 infection and the development of antibodies following infection.

“Together, the repertoire of T and B cell immune receptors could determine a person’s immune signature for COVID-19. With the tools available today, we can look at them with incredible accuracy to find clues to how the virus behaves in different bodies,” says Morrison.

The research is supported by a \$150,000 gift from 11 Day Power Play Inc., a nonprofit that raises funds for pressing medical research. 🌐



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General of the People's Republic of China expressing confidence in UB's support for their students and expressing appreciation for "having been very well informed regarding proper personal protective procedures as well as academic guidance at the University at Buffalo."

Tudini said ISS online advisers are trained in using motivational advising to recognize when a student is in distress and dealing with anxiety.

"If a student is contemplating returning home, for example, helping them to assess their risk level, their support system at home and whether getting on a 25-hour flight would put them at greater risk may enable them to think through making that decision," she says.

Karneeka Golash, a second-year student from Bhopal, India, is planning to talk online with an ISS adviser next week to weigh whether to return home.

"No one knows how long this current situation will continue to go on," says Golash, a biosciences major.

"I know going back will involve a bit more risk. But I have a lot of applications out for summer employment; I have spoken with a few people and it does not seem like it will be a problem.

"Having employment through the summer would make the difference for me, to enable me to stay," she says. "I can resume my part-time employment with the university once the fall semester begins."

Tudini says ISS supports UB's Wellness Coaching Program, established by Student Life in the Office of Health Promotion, as an additional resource for international students.

"Our advisers spend a lot of time talking with international students about different aspects of their lives," she says. "We do encourage them to seek out online wellness coaching."

"Wellness coaching can enable international students to approach a seemingly insurmountable problem or difficult

decision by working through a balanced process that is focused on their priorities," says Sharlynn Daun-Barnett, coordinator of the Wellness Coaching Program. "It is strength-based and non-judgmental.

"It is important to know that the benefits international students receive through wellness coaching are there for other members of the campus community, as well," she says.

Campus Living is also promoting online wellness coaching to international students, as well as others who are living in university housing for the remainder of the spring semester.

"We are offering virtual office hours," says Tom Tiberi, director of campus living. "We are also open for students to come by, to talk about their concerns or ask for guidance or directions.

"Technology does not replace the need for our staff to provide intentional, meaningful and genuine interactions with students," he says.

Campus Living has maintained two offices for the duration of the semester, staffed with professional staff, one each on the North and South campuses.

Tiberi says Campus Living staff members are also continually emphasizing the importance of maintaining social distancing to all students who are living on campus.

"We work to get them to understand how important this is," he says.

"It is more important than ever for Campus Living to focus on supporting students as they transition through these difficult adjustments. Our primary concern is the health and safety of both our staff and students." 🌐

Michael Andrei is public affairs and internal communications specialist for University Communications.

ARCHITECTURE IN SPAIN

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for banking corporations, public and private housing, museums, parks or even urban developments are all part of the program.

"We were able to schedule private visits to sites and buildings that are generally closed to the public, like the Norman Foster Foundation, based in Madrid, the Caja Granada bank by Alberto Campo Baeza, Ricardo Bofill's architecture office, known as La Fabrica as it was a revamped cement factory, or the BBVA tower by Saenz de Oiza and Bankinter by Rafael Moneo," Guitart says.

"I could not think of a better and more complete experience for our students. I may have some troubles to get all of them back home, as they keep mentioning they want to move here." 🌐

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ditional issues with family and other responsibilities. We want to know how a pandemic might affect women's ability to care give and whether they find an extra burden placed on them to take care of themselves and their families. There is a lot to reflect on in this unprecedented time. This is an opportunity for UB to take a leadership role. We are in a good place to do this. 🌐

Jean Watcawski-Wende is SUNY Distinguished Professor and Dean of the UB School of Public Health and Health Professions.

COVID RESTRICTIONS ON CHINA'S TRAFFIC REDUCE POLLUTION DEATHS

By David J. Hill

At the start of the COVID-19 outbreak in January, China implemented strict traffic measures to limit residents' mobility. The goal was to reduce the spread of the disease, which by that point had already affected a large portion of the country.

But the countrywide ban on traffic mobility had another effect: It significantly reduced vehicle emissions, which may have prevented a higher number of deaths that would have been attributable to air pollution than fatalities caused by the novel coronavirus, according to a comment paper published in *The Lancet Planetary Health* by researchers from Yale University, the University at Buffalo and Boston University.



"Our estimates suggest that interventions to contain the COVID-19 outbreak led to improvements in air quality that brought health benefits in non-COVID-19 deaths, which could potentially have outnumbered the confirmed deaths attributable to COVID-19 in China," said paper co-author Meng Wang, PhD, an assistant professor of epidemiology and environmental health in UB's School of Public Health and Health Professions.

An expert on air pollution in China, Wang is also affiliated with UB's Research and Education in eEnergy, Environment and Water (RENEW) Institute.

The authors defined the pre-quarantine period for China as Jan. 5-20, while the quarantine period extended from Feb. 10 through March 14. Researchers examined daily concentrations of the traffic-related air pollutants nitrogen dioxide (NO₂) and particulate matter (PM) 2.5 in 367

Chinese cities between Jan. 1, 2016 and March 14, 2020. Exposure to fine particles such as PM 2.5 can affect lung function and exacerbate medical conditions.

NO₂ and PM 2.5 emissions dropped substantially as a result of the traffic bans and quarantine measures. Researchers calculated changes in air quality during the quarantine and compared those with corresponding changes from 2016 to 2019.

The team reported that nitrogen dioxide levels dropped by 22.8 micrograms per cubic meter in Wuhan and 12.9 in China overall. Meanwhile, PM 2.5 dropped by 1.4 micrograms per cubic meter in Wuhan but decreased by 18.9 across 367 cities.

Researchers estimate that improved air quality during the quarantine period avoided a total of 8,911 NO₂-related deaths, 65% of which would have been from cardiovascular diseases and chronic obstructive pulmonary disease, or COPD. In addition, they estimate that 3,214 PM_{2.5} deaths were avoided, 73% of which would have been from cardiovascular disease and COPD.

There were 4,633 deaths in China attributable to COVID-19 as of May 4, researchers note. "Although COVID-19 has caused increased deaths and health risks in the past several months, we found an unexpected health benefit due to the effectiveness of stricter combustion control policies, especially travel bans," Wang said.

"Our findings show the substantial human health benefits related to cardiovascular disease morbidity and mortality that can be achieved when aggressive control measures for air pollution are taken to reduce emissions from vehicles, such as through climate mitigation-related traffic restrictions or efforts to accelerate the transition to electric vehicles," said Kai Chen, PhD, assistant professor at Yale School of Public Health and the study's lead author.

"If we can address climate change as aggressively as we are fighting COVID-19 but in a sustainable and healthy way, we can prevent the enormous health burdens of climate change without having the devastating consequences of a coronavirus pandemic," Chen added. 🌐

David J. Hill is director of news content for University Communications.

UB TEAM DEVELOPING 3-D PRINTED REUSABLE N95-LIKE MASKS

By Cory Nealon

There are plenty of online tutorials for using 3D printing to create N95-like respirators.

Yet to work properly, and reduce the spread of COVID-19, these improvised respirators must meet stringent requirements.

For example, a respirator's effectiveness is "highly dependent upon proper fit and use," according to the Centers for Disease Control and Prevention. Otherwise, virus-laden respiratory droplets can sneak past tiny gaps between the respirator and user's face.

With that and other critical details in mind, a University at Buffalo-led research team is developing plans to 3D print safe, effective and reusable N95-like respirators. The team, which includes local manufacturers and 3D-printing enthusiasts, has submitted its work to the U.S. Food and Drug Administration for emergency approval.

The submission was led by team member Peter Elkin, MD, professor and chair of the Department of Biomedical Informatics in the Jacobs School of Medicine and Biomedical Sciences at UB and professor in the Department of Medicine

If authorized, the device could help regional and national manufacturers produce respirators and help alleviate the worldwide shortage of personal protective equipment.

"This is a coordinated effort that cuts across UB's research enterprise and involves Buffalo's entrepreneurial digital manufacturers. Very quickly, a team of scientists, engineers and doctors coalesced, with each member offering their support and expertise to address what's become a severe need to fight the spread of COVID-19," says project coordinator Albert Titus, PhD, professor and chair

of the Department of Biomedical Engineering in the UB School of Engineering and Applied Sciences and Jacobs School of Medicine and Biomedical Sciences at UB.

Most 3D-printed respirators are made of hard plastic that's sturdy but lacks the sealing capability of traditional respirators, which are flexible and designed to form a protective barrier around the face.

To address the limitation, the team is using a more malleable plastic that requires more expertise to print.

The team also designed plans for at least five different respirator sizes that take into consideration typical female and male facial features. This approach is believed to be unique, as many 3D-printed respirators are based on a one-size-fits-all approach.

The respirator would be reusable because they could be

sanitized after each use.

Each respirator has an opening to insert a filter cut from MERV 15 air filters (common to hospitals, clean room and other uses). The team is also exploring using human-safe HEPA filters in a turn-and-click mechanism, which may improve the respirator's breathability.

(Another idea is to custom print respirators for a user's face. The user's face would be scanned using a 3D face scanner, or they could submit phone or tablet-camera generated 3D models of their face, which could be used as blueprints for a customized respirator.)

"These are just a few of the ideas we're working on," says Titus. "With the need more urgent than ever, this team is really pushing itself to come up with effective yet practical designs."

The team began to assemble in earnest in March at the Jacobs School. Noting the dwindling supplies of respirators, researchers inquired about UB's 3D-printing capabilities. The conversation spread to several departments in the Jacobs School, as well as the School of Public Health



N-95 masks (Peter Suffoletto PVS Process Equipment, Inc.)

and Health Professions.

It eventually led to a small group of UB researchers who, working with templates shared by the Billings Clinic in Montana, quickly 3D-printed a few prototype respirators.

Encouraged by the results, the informal team began to contact fellow researchers in the biomedical engineering department, which is a joint program of the Jacobs School and the School of Engineering and Applied Sciences. Team members also reached out to leaders in Buffalo's startup community, especially leaders working in additive manufacturing.

Within days, the informal group became a working group directed by Titus. Subgroups formed to tackle areas such as design of the respirator, testing perspectives and production logistics.

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PHD STUDENT IN GSE PROVIDES “PANDEMIC SOLACE”

By Michelle Kearns

Jiayou China! Jiayou Buffalo! Jiayou children artists! The Chinese “jiayou” cheer means “Keep going!” It is the message that GSE PhD student Qinghua Chen first sent to her home country in a video produced soon after news of the pandemic broke.



One of the creative works of Qinghua Chen's daughter Leonie

She gave aid of a different kind to her Buffalo-area home last month when she donated 3,600 face masks to the Amherst Police and the Pediatric & Adolescent Urgent Care of WNY. This month she debuted her latest effort: an online exhibit of children's art she's collected in the months since the pandemic closed UB's campus.

As news of virus outbreaks swept from China to the U.S. and around the world, Chen tried to help by launching a series of creative, collaborative projects. “For me, I'm playing the role of a global citizen ... I just want to help a little bit.”

Her new photo exhibition, on her website, features 100 art pieces made by 60 children in seven countries since schools closed. “Children are born artists. They have striking inspirations,” said Chen, who is studying early childhood education in GSE's Curriculum, Instruction and Science of Learning PhD program. “I call this art gallery ‘Born Artists.’ I hope people can be inspired by these little artists and ... be cheered up by their great art pieces.”

She was inspired by her 5-year-old daughter Leonie's love of drawing and the role local libraries play in hosting activities for children, which is very different from the adult-focused role of libraries in China. Chen volunteered at the Amherst library branches, planning exhibitions by picking themes and asking children to create art for hallway displays.

The show she organized about this year's Chinese Year of the Rat was her last before libraries closed this spring.

Chen then moved online, turning to her blog on the Chinese WeChat app.

She asked families if they'd like to contribute photos of art related to themes of school closings, play and fighting the virus. Submissions came in from children, many of Chinese descent, living in the U.S., the U.K., Switzerland, Japan, China, Canada and Australia.

Work ranged from crayon drawings of nurses in face masks to sculpture and performance art, including a boat from recycled cans, a paper-mâché balloon egg and a yoga session with stuffed animals. A 5-year-old girl dipped Q-tips in red nail polish to paint cherry blossom trees.

Another young artist made a version of a Picasso portrait with a lemon, using string for hair and a red paper hat. And from Chen's daughter, “spring” spelled with letters made from bent dandelions and buttercups.

Chen is now exploring patterns in the art she collected. She has noticed two already.

Children based in the U.S. made more art about missing their teachers. Art from children in China reflected more about helping parents with cooking. “Cooking food is a key part of Chinese culture,” said Chen.

Soon she intends to add new exhibits and new themes to the online children's gallery she continues to develop at her new icccc.org site. The address is based on the acronym for what she hopes will be the name of the education center that she founds one day: The International Cross Cultural and Communication Center for Children.

Before moving to Amherst to study at UB, Chen lived in Shanghai and was a finance reporter for a British news service and worked in marketing and communications at the Chinese L'Oréal and Chanel headquarters.

Chen's background in communications gives a unique perspective to her current work. “It's about communication but in different ways,” she said. “It's about seeing the world from a different perspective and serving the world.”

Chen's efforts attracted fans and media attention. In March, the local ABC TV affiliate aired a story about her video of people from UB's North Campus offering messages to China of support and cheer. Chen got help from fellow UB GSE students Yueqiu Zhang, in the Foreign and Second Language Education Department, and Shuyi Zhao, studying Educational Culture, Policy and Society. 🌐

Michelle Kearns is news content manager for the Graduate School of Education.

GRANT TO STUDY IMPACT OF COVID ON AIR POLLUTION GLOBALLY

By Cory Nealon and Ellen Gray

UB atmospheric scientist Kang Sun has been awarded a \$100,000 NASA grant to study air pollution in three regions of the world as it relates to COVID-19.

The focus of the effort will be southern California, Jiangnan Plain (which includes Wuhan) in China and Po Valley in Italy—all areas where once-congested streets were made easily navigable by travel restrictions associated with the novel coronavirus.

Although satellites have observed a global decrease in some types of air pollution, including nitrogen dioxide, it remains to be seen how long the reduction in harmful emissions will last and what effects these changes will have on the chemistry of the atmosphere in the future.

An assistant professor in the Department of Civil, Structural and Environmental Engineering, Sun is developing a process that will give scientists and stakeholders a way to efficiently monitor both.

“Using a new data-driven framework that combines satellite and meteorological data, we will take NASA satellite assets one step further to quantify the reduction in emissions and its impact on air quality chemistry,” says Sun, who also has an appointment in the UB RENEW Institute.

For now, he plans to focus his research on three regions, each at different phases of the pandemic and that have adhered to different regulations and policies in an effort to control it. He adds that the framework he is developing can be quickly applied to other regions.

NASA’s Earth Science Division, which is supporting the science community as it investigates the many changes this unique situation has brought to light, awarded the grant.

PRINTING N95 MASKS

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The effort widened to include the School of Dental Medicine; faculty from the Department of Pathology and Anatomical Sciences; faculty and Clinical Informatics fellows in the Department of Biomedical Informatics in the Jacobs School; the Sustainable Manufacturing and Advanced Robotic Technologies (SMART) Community of Excellence; E-NABLE, an online community that works on 3D-printed prosthetics and other devices; as well private partners like UBMD Orthopaedics and Sports Medicine. 🌐

Cory Nealon is director of news content for University Communications.

Through the agency’s Rapid Response and Novel Research in Earth Science (RRNES) initiative, NASA is funding selected, rapid-turnaround projects that make innovative use of satellite data and other NASA resources to address the different environmental, economic and societal impacts of the pandemic. 🌐

PUBLIC HEALTH IN JAMAICA

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“When you go to a restaurant, they have jerk chicken with French fries. French fries aren’t a Jamaican delicacy. You see higher rates of obesity because that Western food is coming in,” says Addo.

They planted coconut and cypress trees.

They met with the owners of a Rastafarian farm—where everything grown is used—visited a mental health clinic and a community health clinic. They also set up a mountainside clinic during which they checked people’s vitals.

“If one vital was really high, we were able to talk with them about how changing their lifestyle or one little behavior modification could really play a big role in improving their health,” says public health major Rachel Wenner.

“It was a complete cultural immersion,” Wenner says. “We didn’t go to the touristy sites. We went to the places that the people recommended and where we could get a truly Jamaican experience. Whether that ranged from a sustainable organic farm in the middle of nowhere to a hospital that might not be glamorous, we were learning about what it’s truly like to be a Jamaican.”

The trip further inspired Nanzeeba Ahmad, a biological sciences major and public health minor who wants to pursue a career in genetic counseling. Ahmad plans to incorporate the skills she acquired on this trip in learning about the biopsychosocial model of health care, which examines all of the factors that contribute to whatever health condition a patient is experiencing.

Each group maintained a daily log and received a Go-Pro so they could create a short video presentation that told the story of the Jamaican lifestyle and the impact of changes over time on the sudden and precipitous rise in behavior-driven disease there.

When the students returned to the dorms at the end of each day, they sat around talking, sharing and reflecting on what they’d experienced that day.

“We barely even used our phones,” Addo says, before stopping and shifting gears. 🌐

NEW TRANSLATION OF CAMUS' "THE PLAGUE" HAS SPECIAL RESONANCE

By Bert Gambini

Laura Marris never imagined the approaching relevance of Albert Camus' "The Plague" when she began working on a new translation of the novel last September for the Knopf Doubleday Publishing Group.

But for Marris, an adjunct instructor in the UB Department of English, her work translating Camus' allegorical tale set in a town ravaged by illness is now a project that continues in the inescapable reality of the current COVID-19 pandemic, a coincidence drawing both bold and lightly shaded parallel lines of art apparently manifest in life.

The project began simply. Knopf contacted Marris last summer, based on her previous work translating French literature, to ask if she would audition for the job by translating the novel's first 20 pages.

Having secured the position, she began working a few months later on what will be the first version of the French literary classic for an American audience since Knopf published Stuart Gilbert's translation in 1948.

Marris' role has become obviously more nuanced since then. She's started her second English draft, which could still be revised another two or three times. A firm publication date hasn't been set, but what's certain is that American readers for the first time in two generations will have access to an English language update of "The Plague."

That kind of opportunity for a translator is an important responsibility, which Marris acknowledges along with her life-long appreciation for Camus' work and the pleasure that comes from trying to do justice in English to his original French sentences.

"For me there are moments when Camus' prose is so full and spare, written with such restraint, that I feel like I'm putting on my lyric poetry cap and really trying to capture the lean beauty of those lines," says Marris, who has published original poetry and prose, and earned her MFA in poetry from Boston University.

Restraint is a quality Marris mentions often discussing Camus' style, and it's a characteristic she tries to artfully maintain in her translation, lingering over language and applying the writer's observation to the careful watching of words.

Henry James' quote that "a writer is someone on whom nothing is lost" is a description that might more accurately describe the work of a translator.

"There are places Gilbert gets so caught up in the feeling of the novel that what he gives seems to be his experience of reading it," says Marris. "So where Camus will write something simple, like, 'They returned to work,' Gilbert might translate that as 'They put their shoulders to the wheel.' The novel is heroic on its own, so it's unnecessary to create that heroic feeling if it wasn't originally there on the page."

Gilbert's translation is an obvious foil for Marris to work against and keep in the back of her mind, but she also considers the context in which he worked, and the environment in which she now finds herself.

"When Gilbert worked on his translation the post-World War II context was deeply embedded in his mind with the idea that the novel is an allegory for the French resistance to Nazi occupation," she says. "For me, there is an opportunity to restore some of the other things that were at stake for Camus. He was somebody with tuberculosis so for him illness was not just a metaphor. He had something personal at stake."

Marris says she's looking at the world while translating the novel, wondering

what Camus would say about what's happening today.

Some insight might come from a speech Camus gave in 1946 at Columbia University, which Marris encourages people to watch, about the value of returning to a human scale.

"He gives a moving argument for the value of creating communities and having a shared immunity to the forces of totalitarianism, fascism, oppression, all those forces which on a large scale want to suppress individual communities, and create some kind of terrifying cultural homogeneity," says Marris.

"I think that the humanities and literature especially can help us return to that experience of human scale and connect us through a shared readership that helps us have a voice like Camus' voice that watches out for the most vulnerable sectors of our society."

"I hope that through this translation, Camus will become one of the voices that advocates for a more humane world when we emerge from this." 🌐

Bert Gambini is a news content editor for University Communications.



CONSTRUCTION MOVES FORWARD ON ONE WORLD CAFÉ

By Michael Andrei

Construction has resumed on One World Café on the North Campus.

Work was stopped in April, together with large and small construction projects on all three UB campuses and statewide, in response to stop work orders issued by Empire State Development and Gov. Andrew M. Cuomo mandating that all non-emergency construction projects be paused to combat the COVID-19 outbreak.



A view of the One World Café construction site from Flint Loop showing the exposed south side of Norton Hall (Meredith Forrest Kulwicki)

The third phase of UB's Heart of the Campus initiative, One World Café is being built around and under the existing overhangs of Capen and Norton halls—one of the busiest segments of the UB campus.

"One World Café remains a signature project for UB," says Carrie Woodrow, director of policy, compliance and internal controls, who is also chair of the One World Café steering committee.

"It will meet the need for expanded dining facilities among UB's campus population, while also serving as a center for students, faculty and staff to meet and socialize in a multicultural environment," Woodrow says.

"One World Café will be unique among the university's dining facilities, offering the UB community and visitors to the campus authentic international food choices in an exciting new dining and meeting place."

With a location at one of the major crossroads on the North Campus, One World Café has the potential to become a gateway to the campus, symbolizing UB's identity

as a premiere international university.

While engaging the broader goals of Heart of the Campus—improving living and learning spaces at UB—One World Café is a major construction project in one of the most heavily trafficked areas on campus, and will continue to be disruptive to the university community.

"Members of the steering committee and our construction manager, Turner Construction, will be doing everything we can to communicate what will be happening, when and where to those who will be directly affected," Woodrow says.

Existing fencing and barriers on the construction site on the north and south sides of Capen and Norton halls will remain, along with informational and directional signs posted inside and outside of both halls and across the site.

"We will be doing everything we can to communicate what will be happening, when and where, and assist members of our UB community in their travels across campus," says Tonga Pham, associate vice president for university facilities.

"University Facilities is working diligently to minimize confusion for everyone throughout the construction process, now and in the future," she says.

"Actions we have taken include wayfinding signage at building entrances, elevators, stairwells and hallways across the construction site to redirect traffic to the most efficient routes. In addition, elevators in Capen Hall have been renamed to simplify getting to Silverman Library and administrative offices."

Pham says major demolitions began on site May 18 and will continue through mid-to-late July.

"These involve taking down interior and exterior staircases in both Capen and Norton halls. They are noisy, dusty and very disruptive procedures, so they are the first steps now that construction has resumed," she says.

Pham says new signs and directional postings will be added to doorways and hallways throughout the site as One World Café construction moves forward. 🌐

Michael Andrei is public affairs and internal communications specialist for University Communications.

FULBRIGHT AWARDEE FACES COVID UNCERTAINTY

By Charles Anzalone

A doctoral music student whose research focuses on building community in restrictive political climates—and who now sees “eerie comparisons” to life under quarantine—is the latest UB student to receive the prestigious Fulbright Scholarship.

Nicholas Emmanuel, 31, received what is considered one of the country’s most prestigious scholarships for study abroad for his project “Challenging Identities: Studies in the Aesthetics of Hungarian Musical Modernism.”



Emmanuel is specifically interested in the ways Hungarian composers negotiated questions of cultural and national identity through their music in the 1970s and 1980s.

The grant gives him access to archival resources needed for his dissertation that can only be viewed at the collections housed at the Institute of Musicology at the Hungarian Academy of Sciences in Budapest.

In the era of COVID-19 displacement, Emmanuel’s honor comes with what his adviser calls a “sad coda.” The Fulbright Program is now suspended, according to Patrick McDevitt, Fulbright program adviser, and associate professor in the Department of History. Current grantees were called home, and on May 15, the organization notified its winners for 2020-21 that the awards have been delayed until January.

If the situation improves and travel restrictions are lifted, the Fulbright fellowships will continue in a truncated time table, says Emmanuel, a native of Pittsburgh who earned his bachelor’s degree in music from the University at Pittsburgh and received a Presidential Scholarship from UB for his graduate study. Despite the uncertainty, McDevitt and officials from UB’s Office of Fellowships and Scholarships say Emmanuel, as well as UB’s three alternates, deserve recognition for receiving this international honor.

“Although it is possible that the grantees for the 2020-21 award cycle will either have a shortened Fulbright ex-

perience—or even possibly canceled—it remains a great honor to have been awarded a Fulbright or named as an alternate,” says McDevitt.

“It has long been a tradition in academia for one to list grants or fellowships that were won, even if they were declined. Similarly, Fulbright winners this year will have every right to add their award to their CVs in the future.”

The three Fulbright applicants named alternates were:

- Lilian Macancela, a graduating social science interdisciplinary major, was named an alternate for an English Teaching Award to Italy.
- Caitlyn Sears, a doctoral student in geography, was named an alternate to Malaysia for her project “The Role of Malay-Oriented Islamic Finance in Development in Malaysia.”
- Denis Tuttle, an occupational therapy alumnus, was named an alternate to Thailand for his project “Impact of Occupational Therapy Intervention on Reported Familial Caregiver Burden.”

Traditionally, alternates have good chances of receiving the awards because numerous Fulbright winners withdraw their names over the summer. McDevitt says Emmanuel impressed the Fulbright faculty committee as a “nearly ideal candidate” for the award.

“He has an exceptionally strong background in both performance and music studies, as evidenced by his transcripts and long list of grants and awards,” he says.

“The committee was convinced that Emmanuel will produce an important piece scholarship which will one day be a major contribution to Cold War music studies generally and Hungarian music studies in particular.”

Despite the disappointment, Emmanuel has a balanced and hopeful—but realistic—outlook for his chances of fulfilling his work as a Fulbright scholar.

“To be honest, I’m trying not to dwell too much on this,” he says. “It does kind of put my life on hold until I have clarity on this. It’s difficult to plan for any future if I don’t know if I’ll be leaving the country in a half-year.

“If I’m being realistic, it seems unlikely the situation with the coronavirus will improve enough for me to start my program in January. I’m keeping my fingers crossed for that. We’ll just wait and see,” he says. “Part of the reason I’m not despairing too much about the Fulbright is basically everybody is in a situation of not knowing what next year—possibly the next two years—will hold for them.”

Samples of Emmanuel’s piano performances are accessible online, as well as a more detailed version of his research project—in particular his ideas about music’s role in building community, especially during this era of social distancing. 🌐

Charles Anzalone is a news content manager for University Communications.

BOREN SCHOLARSHIPS FOR LANGUAGE STUDY IN KOREA AND JAPAN

By Charles Anzalone

Two UB students have been selected to receive the prestigious Boren Scholarship, the first year UB has had more than one winner since 2017 and the first time the university has achieved a 50-percent success rate for students applying for the award that funds study abroad.

The two winners are Alisa Delaj of Yonkers, a mechanical engineering major who will study at Korea University in a year-long program, and Carmila Stafford of Orchard Park, a linguistics major with a concentration in Japanese who will study at Konan University in Japan on a year-long exchange program.

"That two out of four of our applicants were elected for the Boren Scholarship is a testament to the quality of our students," says Megan Stewart, assistant director in UB's Office of Fellowships and Scholarships, which identifies, sponsors and supports UB students applying for the internationally competitive and recognized scholarships such as the Boren award.



Alisa Delaj

Stewart served as an evaluator for the Boren Scholarship this year, reading student applications from across the country and traveling to New York City to provide feedback to a selection committee at the Institute of International Education.

"We are incredibly proud of Alisa and Carmila," Stewart says, "and know that they'll do an excellent job of representing UB when they travel abroad."

Delaj previously studied mechanical engineering in Korea during the spring 2019 semester. She is currently an intern with the U.S. Department of the Navy, Strategic Systems Programs. She also had an internship with the Department of State, where she helped teach diplomats the Albanian language.

She participates in UB's Nano-Satellite Laboratory and the American Society of Mechanical Engineers. Her ambition is to become an engineer in the Navy.

"For me, this award means stepping out of my comfort zone of numbers and theories," Delaj says. "It means de-

veloping as an engineer, both technically and culturally."

Stafford previously studied abroad in Japan, helping Japanese students practice their English language skills as a tutor. She is president of UB's Judo no Kata Club and is



Carmila Stafford

a global ambassador for the Office of Study Abroad. She would like to work as an interpreter in the federal government—specifically the Department of Justice—in the future. "I was honestly surprised to hear that I had been selected," Stafford says.

"I've been studying Japanese since high school, with the ultimate goal of becoming an interpreter for the federal government, so the Boren

was the perfect opportunity. "Studying abroad will really help me get a better grasp of how the language and culture interacts outside of the classroom, which will set me up to be more effective in the position I'm aiming for."

The Boren Scholarship provides funding to U.S. undergraduate students to study abroad in areas of the world that are critical to U.S. interests and underrepresented in study abroad. Boren Scholars represent many academic fields, but all are interested in studying less commonly taught languages. Successful candidates will be able to relate their career goals, as well as country and language choice, to U.S. national security broadly defined. The award is for one semester or one academic year, and includes \$8,000 for a summer program (special initiative for STEM students only; eight weeks minimum), \$10,000 for a semester and \$20,000 for a full academic year. Nearly 800 students in the country applied for this award, with 220 being selected for scholarships. 🌐



ADDRESSING PUBLIC HEALTH ON THE GROUND IN JAMAICA

By David J. Hill

Malaike Addo offers a word of caution when asked to recount her winter session 2020 study abroad in Jamaica. “We could be here for days,” she says with a wide grin.

Her mind is racing as she reminisces waking up to the sound of the waves of the Caribbean Sea crashing on shore, bicycling through the country’s famed Blue Mountains to learn about coffee production and talk with rural Jamaicans at a mountainside health clinic, and eating the incredible food.

“We got to enjoy all these foods. I had the most amazing bread I’ve ever had in my life. It was just so moist and the outside was crispy,” says Addo, who transferred to UB from Lehman College in New York City.

“The trip opens you up to so many things. Maybe there’s a type of food you never thought you’d try but you tried it and you’re like ‘Oh my god, I actually like this.’ You can’t go on a study abroad being closed minded. You need to be open minded because you’re going to learn about yourself.”

Those two weeks in Jamaica in January definitely changed Addo. She has seen the difference; her friends have, too. She’s more laid back, confident and vocal than she was just a few weeks ago. It’s precisely the transformation she was told she would undergo when students who’d previously participated in the Jamaica study abroad spoke to the group a few days before they left.

At first, Addo didn’t believe it. “I heard it a million times and I was like ‘Yeah, yeah, whatever,’” says Addo, a senior public health major who’s getting a minor in law. “But they weren’t lying.”

Those transformative moments are exactly what Jessica Kruger, clinical assistant professor in the Department of Community Health and Health Behavior, School of Public Health and Health Professions, loves about study abroad experiences.

“You get to actually see that light bulb moment, and get it in the most unexpected places sometimes, where something just clicks,” says Kruger, who organized the Jamaica trip with Harold Burton, associate professor emeritus of

exercise and nutrition sciences.

“When they have that conversation with someone else in the community and they realize, ‘Wow, this is what I want to do,’ or, ‘This really makes sense’ — that’s what I live for on these study abroad trips,” Kruger says.

The Jamaica trip — which was geared toward students in health-related fields — focused on behavior-driven diseases. It was one of nine experiential learning study abroad programs offered through UBThisWinter. Others included trips Costa Rica, England, Germany, Italy, Korea and Wales.



Students visiting an afterschool program in Kingston in January 2020

Jamaica is an interesting place to study because it’s a developing country, and Western dietary influences are creeping in as it becomes more industrialized, says Kruger.

“Ten or 20 years ago, there wasn’t the plethora of fast food chains that exists now in Jamaica. And with this comes the negative health impacts of diabetes, hypertension and a growing amount of obesity,” she says.

“This has really strained the health care system, and we hear from many health professionals while on the trip how this con-

tinues to trend upward and is really worrisome since there is universal access to health care available in Jamaica,” Kruger adds.

Students explored how lifestyle choices related to food intake and physical activity levels are linked to obesity from two perspectives: the United States and Jamaica. The U.S. has one of the highest obesity rates (37%) in the world, while Jamaica’s is currently much less. But Jamaica’s obesity rate is rapidly increasing and is now a major public health concern. Diabetes, high blood pressure and cardiovascular disease are also on the rise.

During their two weeks in Jamaica, students explored markets and farms to determine the availability and cost of fresh food.

During their two weeks in Jamaica, students interacted with faculty and students in health-related disciplines at the University of the West Indies, where they stayed; explored markets and farms in the area to determine the availability and cost of fresh food; and visited various restaurants and other food outlets to assess nutritional value of prepared food.

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STUDYING SPANISH ARCHITECTURE IN SITU

By Miguel Guitart

In summer 2019, a group of twelve students immersed themselves in the architectural and cultural landscape of Spain, as part of an on-going series of summer study abroad programs at UB first conducted in 2016.

Led by Miguel Guitart, assistant professor in the Department of Architecture, the program features the direct exposure of students to architecture, an intense work and discussion schedule, and an extensive travel itinerary that takes the group to all major cities in the country over nine weeks.

The group was based in a small academic campus in the heart of Madrid. Having the residence and the classroom nearby reinforced the group experience, maximized the options for team work and travel coordination, and minimized daily commuting.

Visiting and experiencing architecture masterpieces was one of the goals of the program, but the students were also exposed to savouring the country's cultural and culinary assets. Museums, galleries, local gastronomy and specific scenic walks all enhanced the daily experience abroad.

Guitart, an architect, author and educator based in Buffalo and originally from Spain, says the program offered a unique immersive time for all.

"[We took] long walks around the city, visiting specific buildings and streets. The students discovered experienced architecture directly and enjoyed other attractions that are relevant in cultural terms, like gastronomy or the art scene.

"Walking, drawing, and enjoying the extraordinary cultural offer and the excellent local food were all part of the architectural journey."

The program combined intense intellectual exposure and design production through one design studio and two research seminars, entitled "Modern and Contemporary in Spain" and "Nine Masters."

The content of both seminars focused on historic, modern and contemporary Spanish architecture, and were scheduled around a series of lectures and in situ visits that

sent students around the city to study and draw sites in context.

An intensive design studio put what they learned into practice as students created concepts for a "UB-SUNY Cultural Campus in Madrid." The studio brief included classrooms, library, café, student residences, reception area, exhibition spaces and open green areas that connected the campus with the surrounding city.

"This design studio was pivotal as it provided the program with an actual design exercise that will eventually be a component of their work portfolio," Guitart notes. The summer program included a lecture series with weekly presentations by international guest academics and practitioners from Spain, United States, Mexico and Brazil.

The program was coordinated around an intense three-day-weekend travel agenda that took the students to Barcelona, Toledo, Granada, Cordoba, Salamanca, Merida, San Sebastian, Bilbao, Cadiz, or Seville, among others.

During the week, Guitart and the group discussed public and private visits to buildings and even local restaurants that would be visited during their weekly

travel. Since the students traveled as a group, one requirement was made: that they took at least one group photograph in each location.

Sites visited included Gaudí's Sagrada Família or Mies van der Rohe's Barcelona pavilion, both in Barcelona, the Alhambra in Granada, the mosque in Cordoba or the Real Alcázar in Seville. Near Madrid, the group went to El Escorial, a royal site from the 16th century, built by architect Juan Bautista de Toledo under king Phillip II of Spain, which includes a palace, a basilica, a monastery, a seminary, a school, and a number of courtyards and gardens in the mountains north of Madrid.

The royal site is home to the royal Pantheon, where nearly all the monarchs who have ruled Spain since Phillip II are buried. The Renaissance complex is considered the 8th wonder of the world due to its scale and plan organization. "The group was always in the presence of history, art, culture and architecture."

Cathedrals, palaces, churches, but also recent designs



Guitart (far right) with the students in Spain

STUDYING EXERCISE SCIENCE IN WALES

Just before the world changed in spring semester, one fortunate group of students discovered the global dimensions of their chosen discipline during a study-abroad course in exercise science.

Five undergraduates and a teaching assistant from the Exercise Science program joined Professor David Hostler, chair of the Department of Exercise and Nutrition Sciences, on a week-long trip to Wales, United Kingdom, to learn about strength conditioning practices there.

Because common sports in the U.K., like rugby, netball and cricket, differ from those in the United States, the UB students saw a different approach to sport training and conditioning—and education.

“In the U.K.,” Hostler explained, “undergraduate education for exercise science is three years long, but students don’t take anything not in the major. The program is very focused with lots of internships.”

The trip featured time in a number of settings that, ultimately, reinforced an idea: strength and conditioning is a profession practiced everywhere, “wherever there are sports worldwide,” said Hostler.

“We met professional rugby players, nutrition scientists, athletic coaches, and strength and conditioning coaches who helped us to understand what equipment they use and how they use it so we could compare it to the U.S.,” said Exercise Science major Samantha Clark.

“We were able to sit in lectures at the University of South Wales (USW) and gain knowledge about the field of strength and conditioning.”

In fact, students spent a day in classes at USW led, among others, by faculty head Ian Jeffries, a world expert in sprint training.

Exercise and Nutrition Sciences PhD candidate and teaching assistant Hayden Hess, MS, ATC, CSCS, also felt his experience at USW was telling. “I was able to get insights into strength and conditioning pedagogy,” he said.

“The instructors and faculty at USW were informative and had many novel ways to disseminate material to their students.

“Additionally, the structure of their courses placed an emphasis on active and autonomous learning, as well as teaching others like student-to-student and student-to-client. This was an unconventional and out-of-comfort-zone learning opportunity for our UB students.”

Other visits included time at the Wales Rugby Union, the national governing body for grassroots and elite rugby teams in that country, a day attending a gym session,

practice and team meeting with the Scarlets professional rugby team, and a session with the strength coach for the professional-level Cardiff City Football [soccer] Club.

“Students got a view into professional sports that most people would never have,” said Hostler.

Students also saw the applications of many elements they learn in class, like sprint and strength training, in practice with real athletes. For instance, sprint training--fo-



Strength conditioning in the weight room of the University of South Wales

cus training techniques to help people accelerate and reach top speed faster--cuts across many kinds of sports.

Clark found the biomechanical aspects of sprint training one of the most compelling things she learned on the trip. “The combination of lecture and lab allowed me to fully understand the components of sprint training and allowed me to enhance my knowledge of how an athlete’s biomechanics can have a huge impact on their performance,” she said.

Exercise Science major Dan Sweet agrees that seeing the science he discusses in the classroom applied “at the highest level of sport. Even the most passionate students go through times when we feel tired of reading textbooks and studying exercise physiology only in concept, without applying what we’ve learned,” he said.

“Seeing the strength and conditioning professionals in Wales at the top of their field practice what we’ve learned and talk to them about what they do was incredibly inspiring and an experience that will continue to influence my education.” 🌐

VIRTUAL STUDY ABROAD: GLOBAL LEARNING FROM HOME

By Gina Carbone

With UB's study abroad programs being cancelled for the summer and fall 2020 due to the COVID-19 pandemic, one administrator has designed an alternative way for students to reap the benefits of studying abroad while staying at home.

Mara Huber, director of UB's Experiential Learning Network, has transitioned the summer Tanzania study abroad program she co-developed and leads to an online setting, where students will complete mentored projects with Tanzanian partners and earn "digital badges."

The program, which will incorporate photos and videos of activities and destinations from past trips, will take place during the fall semester and is open to all students.

Huber has been visiting the Mara region of Tanzania with members of the UB and broader Buffalo communities since 2009, engaging with partners on topics related to women's empowerment and social innovation.

The study abroad program normally began with a week of classes on campus to help students lay a foundation for their two-week trip to Tanzania. The classes included an overview of Tanzanian culture, history, politics and geography, paired with individualized readings based on students' interests. When students returned to UB after their two weeks abroad, they spent the remainder of the summer attending classes and working on their final projects and presentations.

And while transitioning to a virtual program means students won't be able to visit Tanzania, Huber stresses they will still enjoy the benefits of studying abroad with the new structure of the program.

Students talk with an official from the Children's Dignity Forum about the organization's mission to empower girls by educating families about the damaging effects of early marriage and female genital mutilation. The discussion took place during the 2017 Tanzania study abroad program.

"Having an entire semester will allow us to linger on different locations and topics, bringing in speakers—in person and remotely—and allowing students to explore areas of interest, both collective and individual," she says.

"Rather than squeezing in presentations at the end, students will work on their projects throughout (the semester) as a core component of the course."

As the program shifts to an online platform, Huber explains that the ability to use Zoom for meetings and recordings, along with the ELN Project Portal that supports projects and digital badges, enables her to add evolving projects with Tanzania partners, as well as create new ones

based on students' interests and partners' requests.

"I imagine that this will result in students getting a lot out of the course – the projects will be more involved as students will be working throughout the semester with ongoing collaboration and feedback from partners," she says.

"It is funny that our study abroad students often end the trip wishing they had more—more engagement, more time to explore, more time together. In essence, this is what we'll be giving them."

Mary Odrzywolski, director of UB's Study Abroad Programs, notes that Huber's course is the only UB faculty-led program thus far that is being adapted to a virtual setting.

Huber's virtual program has attracted the attention of



A discussion with an official from the Children's Dignity Forum during the 2017 study abroad program to Tanzania (Douglas Levere)

CNBC, as well as SUNY, which enlisted her input in creating the SUNY Global COIL (Collaborative Online International Learning) Commons model. The six-week, six-credit Global COIL program will run from July 6 through Aug. 15 and offer international education experiences to students via online learning.

The program aims to provide flexibility to students, faculty and institutions by designing core modules with focus areas presented in an integrated package of content videos, readings, activities and discussions, followed by projects monitored and supervised by faculty.

Students begin the program in the central square of the model, the Commons, where they participate in a module on intercultural storytelling and communications to set the context for their projects. Following a common introduction, students can direct their storytelling through the medium of their choice.

Students then move toward their selected United Na-

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CLIMATE SCIENCE: MAPPING GLOBAL ICE SHEETS

By Charlotte Hsu

UB climate scientist Beata Csatho is co-author of a new study that makes precise, detailed measurements of how the Greenland and Antarctic ice sheets have changed over 16 years.

The research employed insights from NASA's Ice, Cloud and land Elevation Satellite-2 (ICESat-2), the most advanced Earth-observing laser instrument NASA has ever flown in space. From 2011-14, Csatho led the Science Definition Team that helped determine the satellite's scientific requirements, such as the precision of the laser-based research instrument on board.

The new study, published online in *Science* on April 30, provides insights into how polar ice sheets are changing, demonstrating that small gains of ice in East Antarctica are dwarfed by massive losses in West Antarctica.

The research found that the net loss of ice from Antarctica, along with Greenland's shrinking ice sheet, have been responsible for 0.55 inches (14 millimeters) of sea level rise between 2003 and 2019 — slightly less than a third of the total amount of sea level rise observed in the world's oceans.

"ICESat-2 allows us to accurately capture subtle but important elevation changes in the vast interior of the ice sheets, a feat that was too difficult for earlier satellite missions," says Csatho, professor and chair of the Department of Geology, College of Arts and Sciences.

"Moreover, we obtained accurate measurements of changes in the rugged coastal regions as well. As ICESat-2 continues to collect data, we will be able to estimate ongoing changes and compare those with the 16-year averages presented here to further investigate the impact of climate on the ice sheets."

"If you watch a glacier or ice sheet for a month, or a year, you're not going to learn much about what the climate is doing to it," says Ben Smith, a glaciologist at the University of Washington and lead author of the new paper. "We now have a 16-year span between ICESat and ICESat-2, and can be much more confident that the changes we're seeing in the ice have to do with the long-term changes in the climate."

The findings relied on data from ICESat-2, which launched in 2018 to make detailed global elevation mea-

surements, including over Earth's frozen regions. By comparing the recent data with measurements taken by the original ICESat from 2003 to 2009, researchers have generated a comprehensive portrait of the complexities of ice sheet change and insights about the future of Greenland and Antarctica.

The study found that Greenland's ice sheet lost an average of 200 gigatons of ice per year, and Antarctica's ice sheets lost an average of 118 gigatons of ice per year. One gigaton of ice is enough to fill 400,000 Olympic-sized swimming pools or cover New York's Central Park in ice more than 1,000 feet (300 meters) thick, reaching higher than the Chrysler Building.

Csatho — one of hundreds of scientists and engineers who worked on the ICESat-2 mission — attended the satellite's launch at

Vandenberg Air Force Base in California in September 2018.

ICESat-2's instrument is a laser altimeter, which sends 10,000 pulses of light in a second down to Earth's surface, and measures how long it takes

for tiny particles of light (photons) to return to the satellite. The measurements of time are highly precise — better than a billionth of a second, Csatho says — and this allows scientists to determine how much an ice sheet changes over a year to within an inch.

In Antarctica, detailed measurements showed that the ice sheet is getting thicker in parts of the continent's interior as a result of increased snowfall, according to the study. But the loss of ice from the continent's margins, especially in West Antarctica and the Antarctic Peninsula, far outweighs any gains in the interior. In those places, the loss is due to warming from the ocean, scientists say.

In Greenland, there was a significant amount of thinning of coastal glaciers, Smith says. The Kangerdlugssuaq and Jakobshavn glaciers, for example, have lost 14 to 20 feet (4 to 6 meters) of elevation per year. Warmer summer temperatures have melted ice from the surface of the glaciers and ice sheets, and in some basins the warmer ocean water erodes away the ice at their fronts.

The study also examined ice shelves—the floating mass-



A rendering of the UBICESat-S Satellite (Goddard Space Center)

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UB COLLEAGUES CO-EDIT BOOK ON CLIMATE CHANGE

Global climate change is transforming the world's ecosystems, and nowhere is that more apparent than in the Arctic region, say the creators of a wide-ranging new book.

"Some have come to view the Arctic as the earth's 'environmental canary,' " write the editors of *The Big Thaw: Policy, Governance, and Climate Change in the Circumpolar North* (SUNY Press, 2019).

"In days gone by, when a caged canary taken into mines stopped singing, coal miners knew that the carbon monoxide gas level was so high that they had to escape the chamber. The thawing Arctic may be the earth's early warning system."

The book, edited by School of Law Professors Kim Diana Connolly and Errol Meidinger, with UB anthropology Professor Ezra B.W. Zubrow, comes out of a major conference at UB School of Law's Baldy Center for Law & Social Policy. Its 22 chapters include contributions by legal scholars, biologists, anthropologists and other social scientists with expertise in the Arctic, which scientists find is warming at almost twice the rate of areas elsewhere on the globe.

The book is organized around three main themes, covering the physical changes being seen in the Arctic, policy and governance issues, and the impact of climate change on the cultures and communities of the region.

The scientific and political landscape around this issue, of course, is changing rapidly, and the book reflects significant changes that have occurred since the 2013 Baldy Center conference, including the United States' withdrawal from the United Nations' Paris Agreement to limit carbon emissions.

"We organized a conference among expert scholars in multiple fields because the Arctic is at the front end of climate change on many levels," says Connolly. "It's a very fragile ecosystem that supports interesting cultures and ecosystems that had depended on the way the Arctic had been for generations.

"The ecosystem is being irreparably changed, and impacting various peoples who are in more fragile states than many others. For example, some of these cultures depend on traditions based on the land, including the migration of caribou and harvesting of sea mammals. Alaska Natives and their world are really being impacted in a way we can't fully understand."

In addition to her other contributions, Connolly – an expert in wetlands law – wrote a chapter on Arctic wetlands, asking whether the long-standing Ramsar Convention could be used effectively to protect these areas.

Meidinger, who was director of the Baldy Center at the time of the conference, says the book's interdisciplinary approach sheds new light on a much-discussed topic. "Not only did we talk about what's going on in the United

States in the usual policy sphere," he says, "but we also tried to place it in terms of how it looks from different perspectives, such as those of indigenous people, the global power struggle among nation-states, and the relationship between climate governance and arctic governance. Global issues and local issues are completely intertwined – everything that's done globally has huge impacts in the Arctic."

Anyone who writes and thinks about climate change has to confront the sense of hopelessness that many feel, but



Left to right: Diana Connolly, Errol Meidinger, Ezra Zubrow

Meidinger says the peoples of the Arctic – where 4 million people live – embody a resilience that the rest of the world would do well to emulate.

"There have been different shifts in the climate historically," he says, "and anthropologists and archaeologists talk about adjustments that cultures had to make long ago.

"Not only are those local cultures being affected, but they have experience in adjusting to climate change, and they have lessons to teach. How might we reorganize ourselves in response to these challenges?"

The U.S. National Oceanic and Atmospheric Administration's most recent report card on the Arctic showed that in 2018 that region experienced its second-warmest air temperatures ever recorded, its second-lowest overall sea-ice coverage, and the lowest recorded winter ice in the Bering Sea.

The *Big Thaw* editors and chapter authors will continue explorations of climate change in the Arctic, including launching a new blog next month to encourage innovative study and inspire creative thinking on this critical topic. 🌐

UB RESEARCH SHOWS ADVANCES MADE BY ASIAN UNIVERSITIES

By Marcene Robinson

China and South Korea are surging in the international brain race for world-class universities, as schools in the East Asian nations are replacing institutions in the United States in international college rankings, according to new UB-led research.

The research, which analyzed the effects of government policy on universities across the globe, found that China and Korea raised the number of their universities among the top 500 schools in the world through increased government funding and a focus on developing research programs in science, technology, engineering and math (STEM) fields.

However, U.S. universities continue to dominate the top 100 rankings, suggesting limitations to the approach taken by China and South Korea, says Jaekyung Lee, lead researcher and professor of counseling, school and educational psychology in the Graduate School of Education.

“China has already surpassed Japan in world rankings and is closing the gap with the U.S. fast,” says Lee. “Yet the ‘Asian catch-up model’ of building world-class universities relies heavily on government funding and central planning without creating an environment for intellectual autonomy and sustainable innovation. Chinese and Korean schools are hardly seen among the top 100 universities. The model may work better for the early stages of development, but not for the advanced stages that require innovation and leadership.”

For policymakers in many East Asian nations, research universities are viewed as a key driving force for economic development, says Lee.

Using U.S. or other Western top-tier research universities as benchmarks, schools in East Asian countries made strategic investments in higher education with a priority toward STEM programs to create their own world-class universities.

To examine the effectiveness of the Asian catch-up model, the researchers reviewed the QS World University Rankings from 2008-14 and the Academic Ranking of World Universities from 2003-13. The study, published in March in *Educational Research for Policy and Practice*, also observed the amount of academic citations – a critical factor in ranking methodology – and funding spent on university research for the U.S., China, South Korea and Japan.

China experienced the largest rise in the number of entries in world rankings. The increase was supported by several government initiatives that poured more than \$20 billion in funding into more than 100 institutions. The funds were concentrated in STEM disciplines and fueled a 94% increase in research publications. These universities produced 8.6% of the world’s research citations in 2012, a dramatic rise from 0.8% in 1996.



Jaekyung Lee

South Korea universities also improved in international rankings, as the nation added three schools to the top 500 lists. To increase the competitiveness of its institutions, South Korea invested \$1.2 billion in hand-picked university programs, funding graduate student stipends and scholarships, and improving research infrastructure. The country produced 2.2% of the world’s research citations in 2012, quadruple the amount created in 1996.

The rise of Chinese and South Korean universities coincided with a drop in the number of Japanese schools in the top 500 rankings. An early employer of the catch-up method, Japan’s success made it an initial leader in higher education among East Asian countries. During the previous two decades, Japan shifted from university-wide support to the funding of select research programs. Despite a

slight increase in government support, Japanese institutions experienced a decrease in citations.

The U.S. maintained the highest number of universities in the top 100 and 500 rankings, even with several schools dropping from the lists. Unlike East Asian nations that focused on rankings, research and graduate education, U.S. policy initiatives prioritized undergraduate education with an emphasis on graduation and retention rates, and job placement. In fact, the U.S. did not actively compete in the international brain race and few U.S. universities benchmarked themselves against peer institutions in other nations, says Lee.

U.S. federal and state governments continue to invest billions of dollars in university research, but the U.S.’s percentage of the world’s academic citations were nearly halved between 1996-2012, falling from 41% to 24%.

Stronger growth in China may be attributed to its strategy of lifting whole universities, whereas Japan and South Korea concentrated funding on select research programs, says Lee. Japan’s progress may also have been limited by

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ASIAN UNIVERSITIES

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the maturation of its higher education system and weaker financial incentives.

“In spite of the rapid growth in university rankings by Chinese and Korean universities, progress was limited to the second and third tiers,” says Lee. “This finding might be related to the diminishing returns between citations and rankings. South Korea and China may fall into the trap of benchmarking, following Japan’s suit if they fail to evolve from the ‘catch-up’ model to ‘first mover’ strategies for leading innovations.”

Although the development of STEM programs helped East Asian universities rise in international rankings, concentrating funding on STEM programs typically harmed institutional success. China, South Korea and Japan are outliers, says Lee.

China’s government allocated 100% of its research funding to top universities with concentrations on STEM disciplines, whereas South Korea and Japan allotted 62% and 35%, respectively. In contrast, the U.S. universities in

the top 100 rankings were more likely to have a greater balance in funding between STEM fields, the humanities and social sciences.

An underlying cause of the imbalance, says Lee, may be the language barriers and biases that restrict access to international scholarly networks and journals for non-English speakers in non-STEM fields.

“Asian nations should reframe the question for world-class university development to, ‘How should we distinguish ourselves from our American counterparts?’” says Lee.

“This strategic differentiation is more likely to create win-win results when each nation pursues more comprehensive yet distinctive world-class universities. Then, the challenge is not so much catching up with established leaders as distinguishing from one’s peers.”

Additional investigators include Keqiao Liu of Jiangxi University of Finance and Economics in China, and Yin Wu, postdoctoral fellow at McGill University in Canada. 🌐

Marcene Robinson is a news content manager for University Communications.

VIRTUAL STUDY ABROAD

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tions Sustainable Development Goal (SDG) in partnership with a community-based or non-governmental organization.

As the program concludes, students complete small group projects with community-based and nonprofit organizations from around the world that are doing work in the area defined by students’ chosen SDG. These projects will be based on telling the story of the work or issues faced by the community or organization in relation to the SDG.

The creation of the SUNY Global COIL Commons program, as well as the transition of the Tanzania program to a virtual platform, underscores Huber’s belief that technology plays an important role in learning.

“I think universities are especially poised to innovate in this arena—we have faculty expertise, we have global relationships, we have access to resources and technology platforms, and most of all we have students who are eager to get close and make a contribution, learning and growing as they pursue their own goals and dreams.” 🌐

Gina Carbone is a media relations intern with University Communications.

MAPPING GLOBAL ICE SHEETS

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es of ice at the downstream end of glaciers. These ice shelves, which rise and fall with the tides, can be difficult to measure. Some have rough surfaces, with crevasses and ridges, but the precision and high resolution of ICESat-2 allow researchers to measure overall changes.

The study found ice shelves are losing mass in West Antarctica, where many of the continent’s fastest-moving glaciers are located as well.

Patterns of thinning over the ice shelves in West Antarctica show that the Thwaites and Crosson ice shelves have thinned the most, an average of about 16 feet (5 meters) and 10 feet (3 meters) of ice per year, respectively.

In the same way that the melt of ice cubes in a full cup of water doesn’t overflow the glass, ice that melts from ice shelves isn’t thought to contribute much to sea level rise since the ice is already floating. But the ice shelves do provide stability for the glaciers and ice sheets behind them. 🌐

Charlotte Hsu is a news content editor for University Communications.

UB STUDY CORRELATES OBESITY RATES AND NATIONAL WEALTH

By Kevin Manne

As a nation's coffers grow, so do the waistlines of its citizens, according to new research from the University at Buffalo School of Management.

Recently published in *PLOS ONE*, the study found that around the world, obesity rises along with national income. A 1% increase in per capita income is associated with a 1.23% and 1.01% increase in obesity among adult males and females, respectively.

"As most people currently live in low- and middle-income countries with rising incomes, our findings underscore the urgent need for effective policies to break—or at least weaken—the relationship between income growth and obesity," says Debabrata Talukdar, professor of marketing in the UB School of Management.

Talukdar and his fellow researchers analyzed 40 years of data across 147 countries to observe the relationship between national income and the prevalence of obesity, and how other factors like governmental policies, globalization, urbanization and female participation in the workforce can moderate this relationship. They also forecast future global trends in obesity prevalence using the latest available national income growth projections.

According to the study, more than 2.1 billion people—nearly 30% of the global population—are overweight or obese, with an adverse economic impact of about \$2 trillion each year. And they project obesity to increase, grow-

ing at an average annual rate of 2.47% across the countries they studied.

"Given the highly significant health and economic costs of obesity and the clear importance of economic development, it is vital to gain an in-depth understanding into the association between obesity prevalence and national income," says Talukdar.

The challenge, they say, is how to promote economic growth without adversely impacting the natural environment and personal health and well-being. They recommend policies like national nutrition plans, food taxes and subsidies to incentivize healthy eating, restricting children's exposure to marketing of unhealthy foods and public awareness programs about diet and exercise.

"It will require a concerted, policy-driven effort on multiple aspects of the current socio-economic system," says Talukdar.

Talukdar collaborated on the study with Satheesh Seenivasan, senior lecturer in the Monash Business School at Monash University, UB's longtime exchange partner; and Associate Professors Adrian Cameron, and Gary Sacks from the Deakin University School of Health and Social Development. 🌐

Kevin Manne is assistant director of communications for the School of Management.

CLIMATE ACTION LEADER

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Rankings rate UB fifth out of all U.S. schools, and 34th among 470 universities internationally. UB improved 32 places from last year's ranking in this Sustainable Development Goal despite the fact that the submissions increased considerably.

This year's Impact Rankings included Sustainable Development Goal 1 (No Poverty), which wasn't part of last year's rankings. UB is No. 6 among U.S. institutions and 40th out of 372 globally.

UB's high marks in certain goals reflect the concerted effort the university has made in recent years toward tackling global challenges by doing its part to address the UN's Sustainable Development Goals across the university.

These include being the first United States higher educa-

tion institution represented in the World's Challenge Challenge, signing on early to the University Global Coalition and integrating the SDG's into the heart of the university's sustainability work.

"We are proud of the work we have done in embracing these comprehensive goals as a framework for how we look at sustainability on campus.

"Sustainability is more than just responsible consumption and production, or affordable and clean energy. It's the synergistic impact of all of these goals that will lead to building thriving and resilient communities," said Laura Hubbard, UB's vice president for finance and administration. 🌐

INTERNATIONAL ACTIVITIES OF FACULTY AND STAFF

COLLEGE OF ARTS AND SCIENCES

Department of Economics

Joanne Song McLaughlin, assistant professor, was invited by the Dean of the College of Public Policy, Korea University, Sejong to give a special lecture on the Affordable Care Act and state health insurance mandate issues related to young adults in the United States. McLaughlin was also invited by the Korean government research institute, KIET, and Kyung Hee University to give seminar presentations on the implications of health insurance mandates on the marriage decisions of young adults.

Department of English

Carrie Tirado Bramen, professor and director of the UB Gender Institute, was invited to give a lecture at the English Department at Queens University, Canada in April 2019, entitled "American Niceness, Then and Now." She also gave the keynote lecture at the Australia and New Zealand American Studies Association Conference ANZASA (July 2019), The University of Auckland, New Zealand. Both lectures were based on her book *American Niceness: A Cultural History* (Harvard UP 2017). In December 2019, she presented new work on astrological prophecies of the nineteenth century at the British Association of Nineteenth-Century Americanists (BrANCA) in Nottingham, UK.

Stacy Hubbard, associate professor, was an invited speaker at the English Language and Literature Association of Korea International Conference on Nurturing Global Citizens within War and Violence Narratives in Daejeon, South Korea. Her talk, "'To Trouble the Living Stream': Modernist Literary Responses to WWI Memorials," considered the relation of public memorialization to trauma, memory and forgetting in the years immediately following the First World War and in recent commemorative events and works marking the war's centenary. While in Daejeon, Hubbard was able to reconnect with many graduates of the English department's Ph.D. program now teaching in universities throughout South Korea: Sung Ran Cho (Kyung Hee U); Hye-joon Yoon (Yonsei U); Seok Won Yang (Yonsei U); Jooyoung Park (Soon Chun Hyang U); Joewon Yoon (Korea U); Sodam Choi (Korea U); and Eun-Gwi Chung (Hankuk U). Yang won the ELLAK Book Prize and Hye-joon Yoon won the ELLAK Essay Prize.

Bruce Jackson, SUNY Distinguished Professor and James Agee Professor of American Culture, had several of his photos published in overseas publications: in *Jean Malaurie: L'Appel du Thulé*, Delcourt, Paris; in *Crépuscules*, Editions ElViso, Paris, and also on cover; and the cover photo of René Girard, *René Girard: Kellariloukon Psykologia*, Idiotti: Hamina, Finland. Jackson's audio album and CD, *Negro Folklore from Texas State Prisons*, was remastered of original 1965 Elektra release with new notes and photographs Moochin About, London. Jackson's essay, "Inside/In Color," with 21 photos, appeared in *Iperstoria* 24:Fall/Winter 2019 (Verona, Italy).

Carine Mardorossian, professor, published a book in the medical humanities, *Death is but a Dream: Finding Hope and Meaning at Life's End* (2020), with Christopher Kerr, Chief Medical Officer at Hospice Buffalo. Nine countries sought and obtained the foreign rights prior to publication. The book was released on 11 February 2020 after receiving a starred review on *Publishers Weekly*. More international exposure is expected.

Cristanne Miller, SUNY Distinguished Professor, together with **Stacy Hubbard**, associate professor; **Nikolaus Wasmoen**, visiting assistant professor; **Alison Fraser**, University Libraries; and **Laura Marris**, an independent poet and scholar; planned to host an international conference "Marianne Moore and the Archives," May 22-24, 2020 in Buffalo. The organizers expect to reschedule the conference.

Department of Geography

Peter Rogerson, SUNY Distinguished Professor, has been elected a fellow of the American Academy of Arts and Sciences. The academy was founded in 1780 during the American Revolution. The organization honors excellence and convenes leaders from every field of human endeavor to examine new ideas, address issues of importance to the nation and the world, and work together "to cultivate every

art and science which may tend to advance the interest, honor, dignity, and happiness of a free, independent, and virtuous people," as expressed in the academy's charter. His research interests lie in the areas of population geography, demographic change, spatial analysis and spatial statistics. Among other topics, Rogerson has studied the mobility of the U.S. population, with some research examining baby boomers and how members of this generation have migrated and clustered within the United States. He has also applied his expertise to the fields of health and medicine, examining the impact of geography and other factors on the incidence of diseases including breast cancer. A UB faculty member since 1986, Rogerson is among 276 artists, scholars, scientists and leaders in the public, nonprofit and private sectors named to the American Academy of Arts and Sciences in 2020

Department of Global Gender and Sexuality Studies

During 2019, the 100th anniversary of the founding of the Bauhaus, **Elizabeth Otto**, associate professor, gave 28 invited talks around the country and around the world, including in Hong Kong, South Korea, Germany, and the UK. She published *Haunted Bauhaus: Occult Spirituality, Gender Fluidity, Queer Identities, and Radical Politics* (MIT), and co-authored *Bauhaus Women: A Global Perspective* (Bloomsbury). She also published two co-edited books, *Bauhaus Bodies: Gender, Sexuality, and Body Culture in Modernism's Legendary Art School* (Bloomsbury) and 4 "Bauhausmuadels": Gertrud Arndt, Marianne Brandt, Margarete Heymann, Margaretha Reichardt (Sandstein), the latter the catalogue to her co-curated exhibition in Germany, shown in the cities of Erfurt and Berlin. Otto is currently a senior fellow at the Center for Advanced Studies in the Visual Arts in Washington, DC, an international think tank for art history.

Department of History

Hal Langfur, associate professor, published a number of texts in the U.S., Brazil, Portugal, and the U.K., including "Native Peoples of Brazil," *Oxford Bibliographies in Atlantic History*, ed. Trevor Burnard (New York: Oxford University Press, 2020; online); "Protest and Resistance against Colonial Rule in Iberian America," with Charles Walker, in *The Iberian World, 1450 – 1820*, ed. Fernando Bouza, Pedro Cardim, and Antonio Feros, chap. 29 (London: Routledge, 2019); "Native Informants and the Limits of Portuguese Dominion in Late-Colonial Brazil," in *The Oxford Handbook of Borderlands of the Iberian World*, ed. Cynthia Radding and Danna Levin Rojo, 209-34 (New York: Oxford University Press, 2019); "Índios, territorialização, e justiça improvisada nas florestas do sudeste do Brasil," in *Os indígenas e as Justças nas Américas*, ed. Maria Leônia Chaves de Resende, Ângela Domingues, and Pedro Cardim, 157-88 (Lisbon: Centro de História de Além-Mar, 2019); "Fronreira: Convergência e divergência transnacional no estudo do colonialismo interno," in *Espaços coloniais: Domínios, poderes e representações*, ed. Carmen Alveal and Thiago Dias, 15-34 (São Paulo: Alameda, 2019).

Kristin Stapleton, professor, gave a talk on "Chinese Cities and City People during and after World War II" in Syracuse in February 2020 at the invitation of Syracuse University's East Asian Studies Program. In spring 2020 she worked with Buffalo's One Community One Book committee to develop programs around its 2020 reading selection: Lisa See's *The Tea Girl of Hummingbird Lane*.

Department of Mathematics

Naoki Masuda, associate professor, won the JSPS (Japan Society for Promotion of Science) Prize in 2020. He attended the JSPS award ceremony in Tokyo on February 18, 2020. He was accompanied by his daughter, Ami Masuda. The JSPS award includes funding their travel to Japan. While there, he and his daughter participated in an exclusive audience with the Japanese Royal Family. The JSPS 2020 Award recognizes Masuda's work, "Pioneering Research on Theory and Data-analysis Methods for Temporal Networks." The work considers how various real-world systems can be modeled as networks. He particularly contributed to analysis of temporal (i.e., time-varying) networks, including mathematical modeling and analysis, as well as developing algorithms to analyze temporal network data. He and his collaborators built a unified theory to quantify dynamics of consensus formation and epidemic spreading on temporal networks, and proposed node importance

measures using random walks on temporal networks, to name a few. The JSPS Prize is awarded each year to a select group of researchers (this year to 24 researchers), under forty-five years of age, across all fields of the humanities, social sciences, and natural sciences.

Barbara Prinari, professor, is one of the organizers of a semester-long program on “Dispersive Hydrodynamics” that will take place at the Isaac Newton Institute in Cambridge, UK, from July 6 to Dec 18, 2020. Dispersive hydrodynamics has emerged as a unified mathematical framework for the description of multi-scale nonlinear wave phenomena in dispersive media. Physical examples of dispersive hydrodynamics phenomena include undular bores on rivers, in the ocean and atmosphere, nonlinear diffraction patterns in optics and quantum fluids, turbulence in fiber lasers and superfluids. The program will include 5 thematic workshops, and a one-day event dedicated to the research of female scientists working in the broader area of dispersive equations, both theoretically, experimentally and computationally.

Department of Music

James Currie, associate professor, was invited in October of 2019 to give the keynote address at the biennial conference of the International Musicological Society East Asia (IMSEA), hosted by the School of Music at Soochow University in Suzhou, China. His paper was entitled “The End of American Musicology.” In the Spring of 2020 his essay, “The Liveable Eighteenth Century” was published in *Music Theory and Analysis*, Volume 6/1 (International Journal of the Dutch-Flemish Society for Music Theory), as part of a symposium on the scholar of late eighteenth-century music Wye Allanbrook’s posthumous *Secular Commedia*. The papers had been originally given as part of another international event, the 2017 annual meeting of the Mozart Society of America (conference theme, “Mozart and Modernity”) that took place in October of that year at the University of Western Ontario in Canada. His review of John J. Steinbaum’s *Good Music: What It Is and Who Gets to Decide* (University of Chicago Press, 2019) will appear in the spring in the major British musicological journal, *Music and Letters*. And in March of 2020, he will be resident for a week as a visiting scholar and professor at the New York University campus in Abu Dhabi, United Arab Emirates. Here he will be the guest professor in the Media Studies course, “Who Owns Global Culture? Music, Networks, Law,” where he will be lecturing on the work of Edward Said and his connections with Middle-Eastern Youth Music Projects and the gay writer and political activist Jean Genet. He will also be conducting research with Professor Martin Scherzinger (NYU Steinhardt, Department of Media, Culture, and Communication) for their current book project, “Musical Autonomies: Gender, Form, Capital.”

Department of Political Science

Caroline Holley, adjunct instructor, was selected as a SUNY Teaching Partner in the SUNY-Venezuela Higher Education Engagement Initiative in 2019. She partnered with a colleague, Janett Auxiliadora Mora deTorre at the Universidad Católica Andrés Bello in Venezuela, to co-plan and co-teach Collaborative Online International Learning (COIL) experiences in the Fall of 2019 and Spring of 2020. She also partnered with Mtra. Graciela Ramirez at the Universidad del Caribe in Mexico to teach COIL experiences in the fall and spring of 2019. These collaborations embed an international collaborative learning experience into a course at each partnering institution. They give students the opportunity to explore political and cultural sense-making and to work through geographic, linguistic, and cultural differences to successfully complete projects in international virtual teams.

Department of Sociology

Jordan Fox Besek, assistant professor, gave a talk in October 2019 titled, “Rural Refractions of Ecological Instability: A View from the Original Redneck Fishin’ Tournament.” at the Sustainability: Transdisciplinary Theory, Practice and Action Conference at the University of Toronto in Mississauga, Canada.

SCHOOL OF DENTAL MEDICINE

Department of Oral Biology

Frank A. Scannapieco, professor and chair, visited three European dental schools to lecture and explore research collaborations during his recent sabbatical during fall 2019. He lectured on a variety of topics during visits to each school, including the role of oral health in pulmonary infections, oral-systemic interactions, oral microbiome and diabetes, interactions of salivary components with oral bacteria,

and periodontology and dental practice. He first visited the Department of Clinical Oral Infection Biology, hosted by George Belibasakis, Chair of the Division of Oral Diseases, Department of Dental Medicine, Karolinska Institute in Stockholm, Sweden. KI is a research-intensive medical university with two major campuses. While most famous for awarding the Nobel Prize in medicine and physiology, it is a comprehensive medical institute with an excellent worldwide reputation. The dental school, actually a department of the medical school, is located on the Huddinge campus just south of Stockholm. This campus hosts a large tertiary care hospital and the Novum Research Centre for the study of biotechnology, oral biology, nutrition and toxicology, and biochemistry. The Dental Medicine department is well regarded worldwide, with a recent QS ranking as the number one program in dentistry. The dental program is an integrated program of 5 years, taught in Swedish. The Department of Dental Medicine conducts education at first (Bachelor’s) and third (Doctoral) level. There are about 500 first-level students and 40 doctoral students. Most educational activities take place at first level in dentistry and dental hygiene. The doctoral program is a four year course of study and research leading to the PhD. He then visited the Academic Centre for Dentistry Amsterdam (ACTA), the Netherlands, hosted by Bruno Loos, director of Research (who earned his PhD from the University at Buffalo). ACTA is a large and modern dental school, with 950 students and a total of 950 faculty and staff. The research at ACTA is wide-ranging and includes studies on the pathogenesis, diagnosis, prevention and treatment of caries and periodontitis, as well as endodontic infections, the protective functions of saliva, the development, function and repair of hard tissues, oral implants, dental materials, behavioral science, diseases of the oral mucosa and salivary glands and oral cancer. Numerous discussions were held with faculty and graduate students regarding a number of clinically interesting problems including oral biomarkers for periodontitis and cardiovascular disease outcomes. A significant research program is in place there to develop probiotic approaches to prevent oral diseases and to characterize the oral microbiome. Possibilities for exchange of faculty and were discussed. Scannapieco then visited Sapienza University in Rome Italy, hosted by Livia Ottolenghi, dean of the Dental Faculty. Sapienza University is one of the largest research universities in Europe (140,000 students), and one of the oldest, founded in 1303. The dental program is a component of the Policlinico Umberto I of Rome, Faculty of Medicine and Surgery of the Sapienza University. Interestingly, the university also hosts the Dental Hospital “George Eastman,” dedicated to the treatment of complex dental problems. This is one of several Eastman Institutes around the world focused on dental treatment (and a sister institute of the Eastman Institute at the University of Rochester). The possibility of a co-operative agreement between the dental school at Sapienza and the University at Buffalo was discussed with the hope to foster exchange of students and faculty between the institutions.

GRADUATE SCHOOL OF EDUCATION

Department of Counseling, School and Educational Psychology

Jaekyung Lee, professor, has been awarded a Fulbright Global Scholar award for the 2021-2022 year. His study trip will take him to South Korea, Vietnam and Kazakhstan during fall 2021.

Department of Educational Leadership and Policy

In February 2020, **Melinda Lemke**, assistant professor, gave an invited Diversity, Equity, and Inclusion panel talk at the University of Kentucky, Lexington, KY. This talk is tied to her ongoing research on the intersections between educational policy, sexual violence, and school-based prevention. The talk was titled, “Youth violence, sexual trauma, and schools: Responsibly framing and focusing the conversation.” In March 2020, Lemke also was invited to participate in a webinar series hosted by the *American Journal of Sexuality Education* (AJSE), wherein lecturers discuss recent articles published with the journal. She discussed her article, “The politics of ‘giving student victims a voice’: A feminist analysis of state trafficking policy implementation, which was published with AJSE in early 2019. Lemke co-authored the following publications in late 2019 and early 2020: Lemke, M. & Nickerson, A. (2020). Educating refugee and hurricane displaced youth in troubled times: Countering the politics of fear through culturally responsive and trauma-informed schooling. *Children’s Geographies*. (Advanced online publication); Murshid, N. S., Lemke, M., Hussain, A., & Siddiqui, S. (2020). Combatting gender-based violence: Perspectives from Social Work, Education, Interdisciplinary Studies, and Medical Anthropology. In P. K. Ram & K. Smith (Eds). *Transforming global health: Interdisciplin-*

ary challenges, perspectives, and strategies. Cham, Switzerland: Springer; and Lemke, M., Nickerson, A., & Saboda, J. (2019). *Understanding the global within the local: A case study of policy, leadership, teaching, and organizational supports for displaced youth*. Buffalo, NY: The University at Buffalo.

Department of Information Science

Heidi Julien, professor, presented multiple invited talks and workshops at Swinburne University in Melbourne, Australia and an invited talk at University of Technology in Sydney, Australia. She also presented two invited talks and a workshop at Victoria University of Wellington, New Zealand, and invited talks at the University of Malaya in Kuala Lumpur, Malaysia, and at Chulalongkorn University in Bangkok, Thailand. She served on a panel and presented a poster at the annual iConference in Borås, Sweden.

Department of Learning and Instruction

X. Christine Wang, associate professor and director of Fisher-Price Endowed Early Childhood Research Center, was invited to present, "Teachers' roles in scaffolding preschoolers' computational thinking" at Improving Scientific Literacy Forum hosted by Beijing Normal University, Beijing, China in October 2019. In the same month, she was also invited to present her work entitled "Fostering young children's computational thinking: A systematic review" at Wenzhou University's Early Childhood Educational Research Workshop, Wenzhou, China.

SCHOOL OF ENGINEERING AND APPLIED SCIENCES

Department of Chemical and Biological Engineering

Paschalis Alexandridis, UB Distinguished Professor, has been elected a fellow of the Royal Society of Chemistry, headquartered in London in the United Kingdom. The Royal Society of Chemistry is the oldest chemical society in the world and celebrated its 175th anniversary in 2016. Its mission of "advancing excellence in the chemical sciences" dates back to 1841 and continues today, with more than 54,000 members around the world. The distinction of fellow recognizes members who have been in a senior position for more than five years and have made a demonstrated impact in the chemical sciences. A chemical engineer specializing in soft materials, complex fluids and nanotechnology, Alexandridis joined the UB faculty in 1997. His work impacts emerging paradigms of chemical engineering on molecular engineering of materials and on product design and development, with the goal of novel "smart," "nano" and "bio" materials that benefit society.

Mark Swihart, UB Distinguished Professor, chair and Empire Innovation Professor in the RENEW Institute, presented a plenary lecture and a workshop for researchers on February 24, 2020 at the 8th International Conference "Chemistry in Your World," organized by the students of chemical sciences of the Autonomous University of Baja California (Universidad Autónoma de Baja California, UABC) in Tijuana, Mexico.

SCHOOL OF LAW

Kim Diana Connolly, professor and vice dean for advocacy and experiential education, and **Errol Meidinger**, SUNY Distinguished Professor, edited *The Big Thaw: Policy, Governance, and Climate Change in the Circumpolar North* (SUNY Press) with **Ezra B.W. Zubrow**, professor of Anthropology (see p. 20). The book, published in September of 2019, includes 22 chapters with contributions by legal scholars, biologists, anthropologists and other social scientists with expertise in the Arctic, which scientists find is warming at almost twice the rate of areas elsewhere around the globe.

David Engel, SUNY Distinguished Service Professor Emeritus, and Professor Lynette Chua of Yale-National University of Singapore, directed the inaugural workshop for TRIALS (Training Initiative for Asian Law and Society Scholars) at the National University of Singapore in December, 2019. Funded by a major grant obtained by Engel and Chua from the Henry Luce Foundation, the first six TRIALS workshops are administered by the Centre for Asian Legal Studies at the NUS Law School.

Lynn Mather, SUNY Distinguished Service Professor Emerita, gave a presentation on Strategic Litigation at the Centre

for Legal Education and Social Theory at the University of Wrocław, Poland on November 15, 2019. Lynn Mather also taught the course "Social-Legal Perspectives on Litigation" for the master's program at the International Institute for the Sociology of Law in Onati, Spain from November 11 to November 22, 2019.

David Westbrook, professor, presented "Questioning the Political Economy of Central Banking" as part of the panel Engaging Macroeconomics: Ethnographic Explorations of the Contemporary Welfare State and Beyond at the American Anthropological Association (AAA)/ Canadian Anthropology Society Joint Annual Meeting held in Vancouver on November 20 to 24, 2019.

SCHOOL OF MANAGEMENT

Department of Organizations and Human Resources

Prasad Balkundi, associate professor and chair, was a key note speaker at the Indian Institute of Management at Ahmedabad, India. The conference was on networks and finance and was in the second week of December, 2019. Balkundi presented his research on positive and negative social ties and how they impact key employee outcomes. The participants of the conference included international faculty and doctoral students.

JACOBS SCHOOL OF MEDICINE AND BIOMEDICAL SCIENCES

Department of Biochemistry

Richard Gronostajski, professor, traveled to Seoul, South Korea on Nov. 5, 2019 to visit the Seoul National University Dental School and give a talk on Nov. 7th entitled "NFI genes in Development" and also gave an invited talk on Nov. 8th at the Korean Basic Dentistry Society entitled "Nuclear Factor I (NFI) genes in tooth, bone and brain development." He was invited by Joo-Cheol Park who runs the Laboratory for the Study of Regenerative Dental Medicine in the Department Oral Histology-Developmental Biology at Seoul National University.

Mulchand S. Patel, SUNY Distinguished Professor and Associate Dean for Research and Biomedical Education, was invited to participate as a panelist in the session entitled "Projects on Life Sciences, Healthcare and Ayurveda" in ASCEND KERALA 2020, organized by the Government of Kerala State, India, during January 9-10, 2020. He visited the Department of Biological Engineering, Indian Institute of Technology Gandhinagar, Gujarat, and delivered a research seminar entitled "Structure-based Function and Regulation of a Multi-enzyme Complex". He also visited Gujarat Biotechnology Research Centre, Department of Science and Technology, Government of Gujarat, Gandhinagar. He also delivered the lecture on "Human Migration on the Planet" in the Department of Biochemistry, M. S. University of Baroda, Vadodara, India.

Department of Biomedical Informatics

Peter L. Elkin, professor and chair, has been elected to the International Academy of Health Sciences Informatics. There are only 145 people worldwide and only 49 from North America that have been so honored. This is one of the highest international honors in the field of biomedical informatics. Elkin has also been recommended for adjunct faculty at the University of Southern Denmark. Foreign professorships are a rare honor for American faculty. Elkin is also on the Program Committee for the next Context Sensitive Health Informatics meeting in Australia.

Department of Medicine

Hiroko Beck, assistant professor, spoke at the 84th Annual Scientific Meeting of the Japanese Circulation Society (JCS2020) in Kyoto, Japan in March, 2020. She gave lectures on "The future of atrial fibrillation ablation following Cabana Trial – Atrial Fibrillation Ablation in US" and "Women in Cardiology in US".

Elie R. Chemaly, assistant professor of nephrology, contributed with statistical analyses to the PhD thesis of **Nicole Chemaly-Périn**, defended in Paris, France in November 2018. The title of the work in French, but translates to: "Applications of telemetry in Neurosciences: Analysis of an adult murine model of sepsis-related encephalopathy. Feasibility study in young mice."

Anne B. Curtis, SUNY Distinguished Professor and the Charles and Mary Bauer Chair, spoke at the 84th Annual Scientific Meeting of the

Japanese Circulation Society (JCS2020) in Kyoto, Japan in March, 2020. She gave lectures on "Recent Advances in Cardiac Resynchronization Therapy" and "Change Practice: Biventricular Pacing Is Preferred over Conventional Right Ventricular Pacing in Patients with Advanced Atrioventricular Block and Left Ventricular Ejection Fraction of <50%." She also participated in a debate on whether "Conventional Right Ventricular Pacemakers in Patients with Atrioventricular Conduction Disturbances and Low Left Ventricular Ejection Fractions Should Be Upgraded to Biventricular Pacemakers at the Time of Battery Exchange Even When Heart Failure Symptoms Are Mild," taking the protagonist position.

Department of Neurology

Robert Zivadinov, professor, travelled to New York City in February 2019 for the meeting of the International Neuropsychological Society (INS). His group had a platform presentation "Patterns of Structural and Functional Connectivity Predict Response to Cognitive Rehabilitation 2 Years Later in Multiple Sclerosis." In May 2019, he travelled to Ferrara, Italy for the 9th Annual Meeting of the International Society for Neurovascular Disease (ISNVD). At ISNVD his group presented "Life styling and multiple sclerosis," "Decrease in secondary neck vessels and cerebral aqueduct enlargement in multiple sclerosis: a 5 year longitudinal MRI study," "Epidemiology of cardiovascular comorbidities in aging of multiple sclerosis," and "Diet, life style, and cerebral inflow effects on neuroinflammation-neurodegeneration in MS patients" in platform presentations. His group also presented abstracts titled "Life styling and multiple sclerosis," "Decrease in secondary neck vessels and cerebral aqueduct enlargement in multiple sclerosis: a 5 year longitudinal MRI study," "Epidemiology of cardiovascular comorbidities in aging of multiple sclerosis," and "Diet, life style, and cerebral inflow effects on neuroinflammation-neurodegeneration in MS patients." In June, Zivadinov traveled to Amsterdam, Netherlands for the International Multiple Sclerosis Cognition Society (IMSCOGS) 2019 Meeting, then to Oslo, Norway for the 5th Congress of the European Academy of Neurology (EAN). At IMSCOGS his group presented the abstract "Trait conscientiousness predicts rate of brain atrophy in multiple sclerosis." At EAN they presented abstracts titled "Investigating the effect of teriflunomide on diffuse cortical grey matter volume loss in the phase 3 TOPIC study," "Effect of subcutaneous anti-CD20 Treatment on B-cell counts in human myelin oligodendrocyte glycoprotein-induced experimental autoimmune encephalomyelitis mice," and "Slowing of whole brain volume loss with teriflunomide is associated with delayed conversion to clinically definite MS." In September, Zivadinov was in Stockholm, Sweden to present "Quantitative brain volume change and lesion assessment using MRI imaging" in a platform presentation at the 35th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS). His group also presented abstracts titled "Year conversion to clinical diagnosed depression in people with multiple

sclerosis is predicted by baseline tract damage in fronto-parietal network," "Disruption of a potential emotional salience network is associated with lower depression in multiple sclerosis," "Atrophied T2 lesion volume development in MS: Association between regional distribution and disease progression," and "Long-term efficacy including clinical NEDA and safety of three-times-weekly dosing regimen of glatiramer acetate: 7-year results of the Glatiramer Acetate Low-Frequency (GALA) open-label extension study." In November 2019, Zivadinov traveled to Mar Del Plata, Argentina, for the 56th Annual Meeting of the Argentinian Neurological Society where he had a platform presentation "Imaging biomarkers of disease progression in multiple sclerosis." In February 2020, Zivadinov traveled to West Palm Beach, Florida for the North American Imaging in MS Cooperative (NAIMS) Workshop program in order to deliver a seminar session talk titled "The Case for Disappearing White Matter Lesions".

Department of Ophthalmology

Steven J. Fliesler, SUNY Distinguished Professor and Meyer H. Riwchun Endowed Chair Professor, gave a research seminar entitled, "Retinal Degenerations: The Isoprenoid Connection" in the Department of Pathology and Molecular Medicine and the Neuroscience Graduate Program, McMaster University, Health Sciences Center, Hamilton, Ontario in Canada on January 16, 2020.

SCHOOL OF NURSING

Carla R. Jungquist, associate professor, traveled with a medical team from UB to Ghana over winter break 2019-2020. During this global experience, she and 3 of her students along with a total of 18 members of the UB medical team provided health screenings, preventive care, disease management, and eye glasses to approximately 850 Ghanaian residents.

SCHOOL OF SOCIAL WORK

Melanie Sage, assistant professor, has been appointed Chairperson of the Human Services Information Technology Association. This international group is concerned with the ethical and effective use of technology in human service sectors and oversees the publication of Journal of Technology in Human Services.

In November 2019, **Hilary Weaver**, professor, gave two invited talks at the Symposium on Indigenous Knowledge, Health, and Sustainable Development hosted by Kaohsiung Medical University in Taiwan.

OFFICE OF THE VICE PROVOST FOR INTERNATIONAL EDUCATION

In May 2020, **Stephen C. Dunnett**, professor of foreign and second language education emeritus and senior advisor for UB Undergraduate Programs in Singapore, received the Lifetime Membership Award from NAFSA: Association of International Educators, in recognition of his many contributions to the association and to the field of international education during his 50-year career. 🌐

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CLIMATE ACTION LEADER

By David J. Hill

The University at Buffalo fares exceptionally well in several of the United Nations' Sustainable Development Goals (SDGs). That's according to the second edition of the Times Higher Education Impact Rankings.

THE's Impact Rankings are the only global performance tables that assess universities against the UN's 17 Sustainable Development Goals. The rankings provide comprehensive and balanced comparisons across three broad areas: research, outreach and stewardship.

Universities can submit data on as many of the SDGs as they are able. Each SDG has a series of metrics that are used to evaluate the performance of the university on that goal.

This is the second year for THE's Impact Rankings; this year's includes 766 universities from 85 countries.

"UB has fully embraced the UN's Sustainable Development Goals, and

our standing in the Impact Rankings reflects this commitment," said UB Provost A. Scott Weber. "Sustainability is an issue that our students care deeply about, and we are proud to be a leader in using our actions, scholarship and research to make a positive

UB's 10 in 10

difference in confronting this global challenge."

UB is rated No. 1 among U.S. universities in SDG 13, which addresses taking urgent action to combat climate change and its impacts. Globally, UB ranks seventh among 376 colleges and universities in this Sustainable Development Goal.

The pool of universities that submitted to this SDG increased by 44% from last year, or 115 additional institutions. Despite this large increase in submissions, UB maintained its status as a top 10 university in this SDG.

UB's latest effort on combatting cli-

mate change is a significant one: The university unveiled its updated Climate Action Plan, called *UB's 10 in 10*, on Earth Day in April. The updated plan is a roadmap of 10 innovative, engaging and digestible strategies the university is taking to bolster climate action efforts university-wide, putting UB on a path to achieve net zero emissions by 2030.

UB also ranked highly in SDG 11, which is focused on making cities and human settlements inclusive, safe, resilient and sustainable. THE's Impact

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John J. Wood, Editor