Spring 2018

University at Buffalo

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Virtual reality prepares teachers for the classroom

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UB drives public transportation improvements

"It means better access to the community for people with disabilities."

Andrew Marcum of the Center for Self Advocacy



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UB Community Day volunteers brighten local spaces

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The Future of Medicine Is Here

Jacobs School of Medicine and Biomedical Sciences opens the door to a new era in health care

It's big, it's bustling, and it's a bold change for Buffalo. The new home of the Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo opened officially on the Buffalo Niagara Medical Campus (BNMC) this winter.

The move from the South Campus to the spectacular eight-story building downtown brings an estimated 2,000 students, faculty and staff to the site each day and revamps the landscape of the medical corridor. More importantly, it also strengthens UB's capacity to transform health care in this community.

At the core of that potential is the academic health center model—a consortium of hospitals, health care systems, and research and teaching entities working together to discover new ways to diagnose and treat illnesses, and to bring those advancements to the care they provide to people.

The new site gives faculty, researchers and students close connection to partners on the BNMC. The specialty services and training programs these collaborations help to establish will make it possible for more Western New Yorkers to receive the best medical care without leaving town.

The move also enables the Jacobs School to add more world-class experts

The new structure is
Buffalo's first building
with an NFTA-Metro
station inside.

Did you know?

to its ranks—and to expand its student body by 25 percent. The increase in doctors training, and eventually practicing, here in Buffalo will help to curb critical physician shortages in the area.

Many years ago, from 1893 until 1953, UB had its medical education operations on High Street, just steps away from the new Jacobs School facility. It has returned downtown, with cutting-edge tools, technologies and treatments, but with the same mission at heart.

"The lasting legacy of the 171-year-old Jacobs School of Medicine and Biomedical Sciences is that it is our community's medical school," says Michael E. Cain, dean of the Jacobs School. "Given its deep, historical influence on the growth and development of our community, it's only fitting that the school is moving back to its roots on Main and High streets, where it will anchor an academic health center that will serve Western New York—and beyond—well into the future." •

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To learn more about how the Jacobs School will help to improve health in our community, visit buffalo.edu/here.



Recognizing what's happening around the community

Works for us!

Buffalo's first-ever Dare to Repair Café took place at the University Heights CoLab in the fall. Organized by the City of Buffalo recycling program, Knowledgefire, University Heights CoLab, and University Heights Tool Library, the event brought in handy volunteers to fix broken household items. from lamps to bicycles to articles of clothing, helping community residents avoid costly repairs while also reducing waste.



Volunteers at the Dare to Repair Café get their fix by helping out.

Well-deserved!

University Heights
Collaborative (UHC)

was honored by Buffalo LISC (Local Initiatives Support Corporation) with its 2017 Building Sustainable Communities Award in recognition of UHC's contributions to comprehensive community development in the metro Buffalo area.

It's good to connect!

Putting small, local businesses, particularly those that are minority-, women- or veteran-owned, in contact with those who make purchasing decisions for the institutions on the Buffalo Niagara Medical Campus was the focus of the annual BNMC

Event at UB's Educational Opportunity Center last fall, with more than 100 people

in attendance.

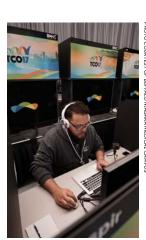
Works MWBE Networking

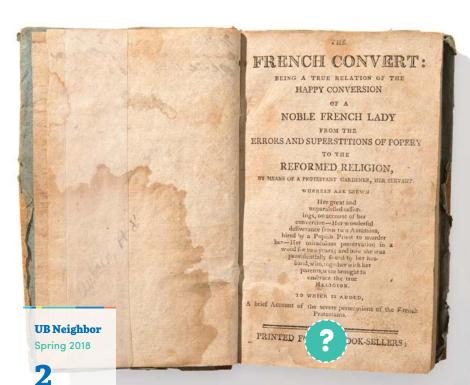
Pretty impressive!

The Buffalo Niagara
Medical Campus's
Innovation Center played
host this past fall to the
finals of the 2017 Topcoder
Open, a prestigious
programming, design and
data science competition
that attracts some of the
most talented techies
from around the globe.
Buffalo's emergence as
a center for innovation
and entrepreneurship,
particularly in life sciences.

helped to attract the event

organizers.



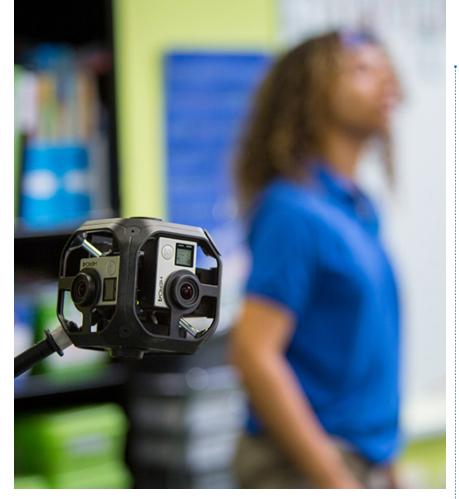


UB Through the Years

Turning Back the Pages

The first book ever printed in Buffalo, along with more than 300 other locally published 19th-century titles, has been checked into the University Libraries. The Eugene Musial Buffalo Imprint Collection is the work of its late namesake, an area bookstore owner who spent decades amassing pamphlets, biographies, maps and more. Highlights include the first directory of the Village of Buffalo from 1828, assorted guidebooks of Niagara Falls from the 1830s and 1840s, and an 1840 journal by a man imprisoned in the Erie County Jail. The collection, which offers unique insights into a fascinating era of Buffalo history, eventually will be digitized and made available online for public viewing.

Test of Time: Can you guess the year that the first book printed in Buffalo was published? Find the answer on the bottom of the back cover.



Getting with the Program

A new training tool developed by UB researchers uses virtual reality to prepare the next generation of teachers

rom doctors to pilots, virtual reality simulations have changed the way people train for their jobs. Now, thanks to two UB researchers, the technology is being used to educate a whole new set of professionals: teachers.

Created by Richard Lamb, an associate professor in UB's Graduate School of Education and director of its Neurocognition Science

Laboratory, and Elisabeth Etopio, director of UB's Teacher Education Institute and interim assistant dean for teacher education, the virtual reality program generates an $interactive\ class room\ environment\ that\ simulates\ disruptive\ student\ behavior.\ The$ simulation is not the first of its kind, but it differs dramatically from other simulation platforms by using student actors in an actual classroom. In that respect, student

"This is meant as a training simulator for pre-service and in-service teachers to garner experience in dealing with situations such as difficult student behaviors."

Richard Lamb

teachers can repeatedly immerse themselves within a realistic classroom environment.

"This is meant as a training simulator for pre-service and in-service teachers to garner experience in dealing with situations such as difficult student behaviors, teaching methods, classroom management in general, and other activities as needed," says Lamb, "So when the teaching student steps into the classroom, they have some idea of what to do."

Better yet, a prospective teacher can gain experience without any of the potential consequences found in a real-life environment. "Young teachers need to step back and

understand that children's behaviors are a socio-emotional response, not to be taken personally," says Julie Schwab, superintendent of Enterprise Charter School. "Virtual reality is a tool that can expose new teachers to some of these behaviors and give them practice responding in real time and honing the explicit language needed to gain understanding of what caused this child to be where they are this time."

The project is an ambitious one that could transform the way teachers are trained. And it would not have been possible without the contributions of a gracious group of seventh- and eighth-grade students at Enterprise Charter School, who acted out the disruptions—going against their typical pleasant natures, according to teacher Rebekah Lamb.

Their dramatic efforts succeeded. Now, thanks to the hard work of the students and researchers, the teachers of tomorrow will be better prepared for the challenges that lie ahead.

COMMUNITY

Matters

A note from UB's Office of Government

UB touches thousands of lives within the community and helps to guide our region—and our world toward a brighter future. Our office sees proof of this every day, and we're glad to share the news of what's happening.

Though February is upon us, we're still feeling the glow of this past holiday season. That's because the annual Adopt-a-Family program, sponsored by this office every December, makes a big impression on

for the university-wide initiative that offers departments on campus the opportunity to brighten the holidays for families in need. We work with community organizations, local officials and churches to nominate families from throughout our grea.

The outpouring of support has been immense, with steady growth of the program through the years, and more than 35 UB departments taking part this year. The participants are provided with wish lists from the families, as well as the ages and genders of family members, to guide them in their holiday shopping. Past gifts have ranged from toys and gift cards to clothing and

Tess says:

"Let us know what's on your mind. Call us at 829-3099, email communityrelations@buffalo.edu or visit buffalo. edu/community."

needed household items. One year, a washina machine was presented to a family by participants from the School of Social Work! The gifts are distributed at a holiday party here on the South Campus in December. The generosity on display that day is stunning—just imagine a room overflowing with hundreds and hundreds of carefully and brightly wrapped gifts. That much warmth lasts all the way to spring

In other news, we're pleased to note that UB has approximately 1,500 students utilizing the New York state-sponsored Excelsior Scholarship—the most of any school. The Excelsior Scholarship, combined with other student financial aid programs, enables many state residents to attend a SUNY or CUNY college





and Community Relations





What UB's inquiring minds want to know

Can a new vaccine help put an end to pneumonia?

A new vaccine under development by UB and other researchers has the power to target dozens more strains of Streptococus pneumoniae, the bacterium that causes pneumonia, than the best vaccines currently available. It can even anticipate future versions of the bacteria.

What's an efficient way to get Narcan to those who need it?

A study led by a UB researcher has shown that equipping police and fire first-responders with Narcan resulted in the reversal of 81 percent of the 800 opioid overdoses reported to the Erie County health department during a two-year span between July 2014 and June 2016.

When does schizophrenia start?

Research by scientists at UB and other institutions reveals the brain disease likely begins very early in fetal development, toward the end of the first trimester of pregnancy—a game-changing finding that opens up the potential for new treatment possibilities in utero.

Is there something fishy in our water?

A UB-led team detected high levels of antidepressants in 10 species of local fish in the Niagara River, affected by residual pharmaceuticals coming from wastewater treatment plants. Because the meds are isolated in the brain, they pose no threat to people who eat the fish, but they can alter animal behavior and threaten biodiversity.

Learn more about UB research initiatives that affect your life at buffalo.edu/community/outreach/research.





Lab simulations in the UB IDeA Center's facilities helped researchers develop improvements to bus transportation.

On the Move

UB and the NFTA team up to make public transportation more accessible for people with disabilities

veryone wants a way to get from point A to point B with the least amount of trouble, and public bus transportation is a valuable resource for doing just that—especially for many people with disabilities.

That's why a research partnership between UB and the Niagara Frontier Transportation Authority (NFTA) is working to improve the public transit experience for the re-

gion's many riders who have some type of disability. They're taking what they've learned through lab simulations on the South Campus and applying the findings to the NFTA's fleet of buses. Their results also have informed national standards for accessible public transportation.

UB's Center for Inclusive Design and Environmental Access (IDeA Center) collaborated with community

members who use a variety of wheeled mobility devices to conduct usability testing on three different types of wheel-chair securement systems for buses. The current four-point securement system is both time-consuming and tedious to employ. "The wheelchair user often feels that there is unwanted attention drawn to them," says Brittany Perez, an occupational therapist and research associate for the IDeA Center. "And there's time pressure for the bus driver who is hurrying to stay on schedule."

With grant funding from the National Institute on Disability, Independent Living and Rehabilitation Research, the IDeA Center tested two new securement systems: Q'Pod and Quantum. The first is

a manual, three-point securement system that requires the bus driver to hook the wheeled mobility device into place. The second is a novel, automated rear-facing system. It requires the passenger to back into the securement space, pressing a button to initiate two telescoping arms that fix the wheelchair into place.

Compared to the traditional system, both Q'Pod and Quantum reduced the amount of time and effort required to get in and out of the bus, but it was Quantum that made the largest impact. "In our study we found that this system significantly reduces securement time and increases independence," says Perez, "and our participants rated the automated system very highly."

These findings can have an enormous impact for passengers with disabilities, both here in Buffalo and across the country. Andrew Marcum, program director for the Center for Self Advocacy in Buffalo, explains: "We know from experience that when people have negative experiences using public transportation, they tend not to use it. That's why the research the IDeA Center is doing and the investments the NFTA is making are so important. It means better access to the community for people with disabilities." •

The Business of Caring

A new social innovation program at UB is making an impact right here in WNY



hen foster kids age out of the system, many lack the knowledge, skills and resources to live independently. A third will experience homelessness by age 26, studies show.

Last summer, a pair of UB graduate students worked with Belmont Housing Resources for Western New York to develop a sustainable program to change these prospects. Their idea was

to provide rental assistance and support services to foster youth looking to build self-sufficiency as they approach independence.

Cheyenne Ketter-Franklin and Jonathan Puma researched the population as well as existing programs around the country, met with other local agencies, and conducted a focus group of foster youth. With those insights, they drafted a business plan to adapt Belmont's existing programs to the unique needs of this population. Then they created new policies and procedures, connected Belmont with potential partner organizations, and developed a resource guide, goal checklist and marketing collateral.

Their work was part of a new collaborative program at UB known as the Social Impact Fellowship. It provides graduate students the opportunity to spend the summer learning about and creating social innovation in Western New York. Presented by the School of Management and School of Social Work with the Blackstone LaunchPad at UB, the program pairs an MBA and social work student for an eight-week internship at a local mission-driven organization to work together on ideas that address systemic social issues.

In addition to housing and economic challenges, student teams in 2017 confronted issues in gender equity, health care, food waste and community development. Fellows worked with

organizations including Child and Family Services, Erie County Medical Center, GObike Buffalo, Lt. Col. Matt Urban Human Services Center of WNY, McCullagh Coffee Roasters, Veterans One-Stop Center of Western New York and the WNY Women's Foundation.

Their resulting plans for innovation were then put to the test in a "Pitch for a Cause" competition, in which the teams sought funding to help their partner organizations continue to implement their ideas. Ketter-Franklin and Puma were named the winners and earned \$2,000 for Belmont Housing Resources.



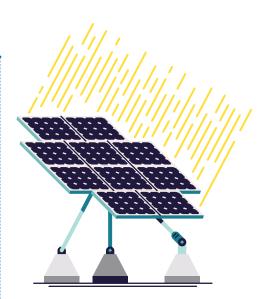
This coming summer, the program will be offered again, thanks to the support of the Charles D. and Mary A. Bauer Foundation, and a new round of social work and management students will leverage their diverse backgrounds to combat social problems in the Buffalo community. In late May, fellows will complete a five-day social innovation course and two-day program orientation. Then, in June and July, participants will devote eight weeks to their internship organizations, spending Monday through Thursday with their organizations and returning to campus Fridays for sessions with management and social work faculty, who team up to teach fellows how to generate solutions to social challenges.

Throughout it all, collaboration is key.

"My father has worked in the addictions field for 40 years and always tells me how important it is for agencies to grasp both the addiction side and the management side to function and serve their clients," Puma says. "Now, after participating in the fellowship, I understand and recognize how integral it is to merge the social work and business fields in developing a program to serve those in need." •



Above: As part of their Social Impact Fellowship internship at the Lt. Col. Matt Urban Human Services Center of WNY, UB students Juwan Thompson and Colleen Kristich worked to train formerly homeless individuals to print and sell T-shirts as a transitional job. Inset: Cody Barber and Asta Padervinskaite worked with GObike Buffalo on a program to empower people in need to become bicycle commuters.



Have You Heard...

Good news worth sharing

We've got the power.

An initiative spearheaded by UB with funding from New York State calls for the creation of 100 megawatts of mostly solar energy by 2020, generated through cleanenergy stations across Erie County. The power would be consumed by a consortium of regional institutions, including UB, the City of Buffalo, Erie County, Buffalo State and ECC, reducing energy costs and saving taxpayer dollars.

Health is the focus.

Research into African-American women's breast cancer risk and their concerns about genetic testing is among the first round of projects funded through the UB Genome, Environment and Microbiome Community of Excellence's Educational & Engagement Innovation Grant. Together with the Patient Voices Network and Jewels in Our Genes, UB faculty will hold focus groups to develop and test educational messages on breast cancer risk in African-American communities.

Children shouldn't have to go without.

An award-winning program directed by a UB psychiatrist addresses a critical shortage of child and adolescent psychiatrists in the state by providing assistance to primary care providers for their pediatric patients with mild to moderate mental health issues. So far, more than 7,000 pediatric patients throughout New York have received support through nearly 2,000 registered primary care providers.

ACTION ITEMS

Opportunities to learn, grow, celebrate and connect with UB

Get the inside scoop.

Former U.S. National Security Adviser Susan Rice, climate change expert James Balog, and TV icon and science communicator Alan Alda are all set to appear at UB's Center for the Arts as part of the Distinguished Speaker Series. Get schedule and ticket info at buffalo. edu/ub-speakers/tickets.

Embrace technology. The
13th annual Tech Savvy, a daylong
science, technology, engineering and math career conference
designed to entice Western New
York middle and high school
girls to these fields and to inform
families about STEM education
and careers, takes place at UB's
North Campus on March 17. Visit
originaltechsavvy.org for info.

Step it up. UB's School of Public Health and Health Professions kicks off its annual Step Challenge in April. Sign up as an individual or as part of a team, track your steps and win prizes! Participants can use their own fitness trackers or request a pedometer during the registration process. Go to sphhp. buffalo.edu and search for Step Challenge.

File for free. UB School of Management students in Beta Alpha Psi and the UB Accounting Association will again provide free tax preparation services through the IRS-sponsored Volunteer Income Tax Assistance (VITA) program. Individuals and families with annual incomes below \$54,000 are eligible. Visit mgt.buffalo.edu/freetaxprep for dates, times and locations.



UB Neighbor Spring 2018







Abby





Karina

Questions for four UB students on their way to becoming doctors

Behind the stereotypical image of the overworked, under-rested med school student are living, breathing individuals with diverse backgrounds and dreams. A social media project started by a student at the Jacobs School of Medicine and Biomedical Sciences at UB aims to reveal this human side of the medical school experience.

Beyond the White Coat is a photographic Q&A series on both Facebook and Instagram that follows a year in the life of medical students at the Jacobs School. Creator R. Aaron Bola, who has interests in both medicine and mass communication, started the project to "shed light on what it truly means to be a physician in training."

Below are excerpted responses from four doctors-to-be, answering the question, "What is something you want your future patients to know about you?"

- "I want them to know that I understand struggle, and that when I say I want to listen to their stories, I mean it I want them to know that I understand what it's like to be in a dark place and I value my potential role in helping them get out of that"—Mark
- "I want them to know that I want to hear everything they're concerned about, even if they think it's not important... I want them to know that I still want to hear it, because anything they have to say about their own body and their health is important." —Abby
- "I'm pretty sure I'm [going] into psychiatry. And with all the stigma associated with the field, I just want my future patients to know that I don't blame them for anything that they're experiencing. That if they're depressed or if they have anxiety disorders, and they can't get through a day without taking medications, that it's not their fault. —Greg
- "I want them to know that I get where they're coming from. I may not always look it, but I have life experiences that allow me to understand their situations. Especially the adolescents. I know as a teenager it's so easy to brush off someone you think doesn't understand you. ... That's a barrier I'm really trying to overcome." —Karina

Want to read more? Follow BTWC on Facebook at facebook.com/beyondthewhitecoat or on Instagram at @btwc.series.





Students dug into their volunteer work on UB Community Day, cleaning up garden beds in a neighborhood near the South Campus.

Doing Good in the Neighborhood

TWICE A YEAR, UB COMMUNITY DAY SUPPLIES THE LABOR AND THE LOVE

Some raked up leaves at Compass House, then joined the residents to bake Halloween goodies. Others helped the Matt Urban Hope Center get organized to take in those who would come to seek shelter in the winter. Some sorted clothing donations and supervised children's activities at the Jericho Road Community Health Center, while others put paintbrushes to good use at the Macedonia Baptist Church.

At Sisti Park on North St., several volunteers spruced up the grounds and planted bulbs that soon will be in full flower.

2010

Year that UB Community

Day was initiated

Almost 100 UB students lined up to lend a hand to community improvement and neighborhood beautification projects as part of UB Community Day last October.

The UB Office of Community Relations holds the event twice each

year, in fall and spring, to help clean up neighborhoods and assist local agencies with painting and other projects. In addition to benefiting the community, the day fosters positive interactions between students and residents, and shows students the value of getting involved in neighborhood projects.

Students arrive to the South Campus early in the morning to fuel up and gear up, and then are shuttled to sites around the city, including the University District, the Fruit Belt neighborhood near the Downtown Campus and the East and West sides.

It's a chance for the university community to give back to the city it loves and demonstrate UB's commitment to the neighborhoods around its campuses.

LET US COUNT THE WAYS

There are numerous opportunities in addition to UB Community Day for civic–minded students to support their community

Number of different locations at which students participating in an "Alternative Break" trip have the opportunity to work with community partners locally, nationally and internationally

125

Number of students who participated in the UB Pride & Service Day during last Opening Weekend Number of community

Number of community organizations represented at the last annual Community Engagement Fair, where students looking to get involved can find just the right match

600

Estimated number of hours of work that student volunteers contribute on a single UB Pride & Service Day, now held twice annually

9/11

Designated as a Day of Service at UB. This past year, many students volunteered at a Buffalobased iteration of the Steven Siller Tunnel to Towers Run

UB Neighbor Spring 2018





7



A new web resource for the community!

Now find events, news, volunteer and learning opportunities, contacts, and much more at **buffalo.edu/community**.



Office of Government and Community Relations 124 Parker Hall Buffalo, NY 14214 Nonprofit Org. U.S. Postage PAID Buffalo, NY Permit # 311



The Big Picture

Crystal Clear Four years ago, UB Associate Professor of Chemistry Jason Benedict launched the U.S. Crystal Growing Competition, an event that challenges K-12 students and teachers from across the nation to grow the biggest, highest-quality crystal possible. This past year, more than 160 teams entered for a chance to win cash prizes in three categories: Best Overall, Highest Quality and Coolest Crystal, which celebrates the quirky-looking specimens.

Students grow their crystals by dissolving a nontoxic chemical powder into water, then letting the water evaporate. The trick is timing: Let the water disappear too slowly, and the crystal might not develop in time. Go too fast, and imperfections could appear. The best crystals go on permanent display in UB's chemistry department.

"I like how easy it is for younger students to get in on this," says UB chemistry PhD candidate Eric Sylvester, who helped administer this year's competition. "It's a simple way to get them into science." •

STOP BY AND SAY HELLO!

1

Reach UB's Office of Government and Community Relations at 829–3099 or communityrelations@buffalo.edu, or visit us at 124 Parker Hall on the South Campus.

The University at Buffalo is the largest and most comprehensive campus in the State University of New York system. If you have questions about UB's programs or wish to be added to the mailing list for this publication, please call (716) 829-3099, or send an email to communityrelations@buffalo.edu. Produced by the Division of University Communications, University at Buffalo. Editor: Sally Jarzab. Creative Director: Rebecca Farnham. Contributors: Charles Anzalone, Holly Atkins, Matthew Biddle and David J. Hill. January 2018 17-GCR-006.

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