The LIST

2014–15

ONE YEAR. HUNDREDS OF STORIES.

University at Buffalo
The State University of New York

PROGRESS REPORT

The LIST

MAKE YOUR MARK
Tear off this bookmark to hold your page or mark your favorite story.

IT'S BEEN AN AMAZING YEAR AT UB.

WE DESIGNED A WATER PURIFIER THAT COULD SAVE MILLIONS OF LIVES P.7

REVOLUTIONIZED TREATMENT FOR STROKE P.21

WON A PULITZER P.35

AND AN OSCAR P.35

ACCELERATED BUFFALO'S ECONOMIC RESURGENCE P.19

AND WENT TO OUR FIRST BIG DANCE P.27

(*Good thing we're also* AT THE FOREFRONT *of research into coffee.* P.9)

AT THE UNIVERSITY AT BUFFALO, our integration of disciplines, people and ideas, our commitment to creative freedom, and our insistence on thinking big foster an environment of limitless possibility, in which no goal is too lofty, and transformative discoveries are a daily occurrence. This year has been no different.

In this second edition of The List, we are proud to bring you more than 500 news headlines from 2014-15 that capture our purpose and pride. The list is not comprehensive—that would be a virtually impossible task, given the number of newsworthy accomplishments that our faculty, students, staff and alumni amass in a week, let alone a year.

Instead, consider this book to be a peek inside a nationally ranked institution and the most comprehensive public research university in New York State. See how we're solving our planet's most complex challenges. Learn how we're improving the health and wealth of communities worldwide. Grasp how we're elevating humanity with our contributions to the arts. And discover how we are making a difference today—and every single day of the year.

DID A HEADLINE CATCH YOUR EYE?

Go online at www.buffalo.edu/progress for links to each story you see here, and experience a year in the life at UB.

LETTER FROM THE
PRESIDENT

HOW DO YOU MEASURE the progress of a university that is evolving and transforming every day? Over the years, UB's scope and mission have expanded exponentially as we have grown into a world-renowned research university that is the thriving heart of our regional community, a national leader in public higher education, and a global hub for excellence in research and education. And that evolution continues today as we build even further on our distinctive strengths and expand their impact ever more broadly.

Great universities don't stand still. Guided by our core mission, we are always refining, recalibrating and readjusting in response to the developing needs and concerns of a world that is always changing. That is the essence of what it means to make progress. Every day, we must set our sights higher—for the sake of our students, our communities and the world around us.

That's the heart of our mission as a public research university, and we never stop pursuing it. The hundreds of stories gathered here are evidence of that ongoing pursuit, and a testament to its powerful impact—regionally, nationally and globally.

You'll find many compelling examples of that impact captured in the pages of this progress report—from research breakthroughs that are revolutionizing the treatment of cancer, stroke and drug addiction, to new approaches that are transforming how the world does business, to novel ways of understanding the nature of vast challenges like climate change, data security and global poverty.

This isn't intended to be an exhaustive list—far from it. There are countless new stories unfolding right now, and many more taking shape for the future. No matter how much progress we achieve, we are continually creating, innovating and transforming so that we can reach higher and farther in our commitment to making the world around us a better place.

Each member of our university community—faculty, staff, students, alumni and university friends—helps drive that progress. Thank you for all the ways in which you help our great university achieve and contribute—now and in the future.

With best regards,

Satish K. Tripathi

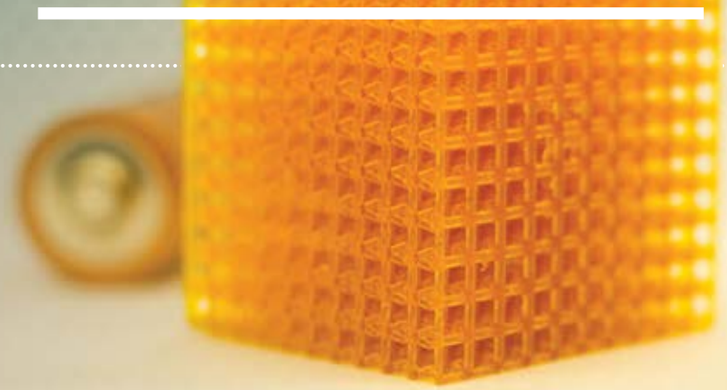
Satish K. Tripathi, *President*

The LIST

JULY 1, 2014 to JUNE 30, 2015

JULY 2014

BUILD IT AND THEY WILL COME



UB's strength in advanced manufacturing and design brings international conference to Buffalo

UNDERWATER ROBOTS. Origami-inspired airbags. 3-D printed artificial limbs.

The most exciting innovations of the day are coming from the field of advanced manufacturing and design—and UB is at the forefront of this materials and manufacturing revolution.

The NYS Center of Excellence in Materials Informatics is leveraging our expertise in materials science, advanced manufacturing and big-data analytics. UB is also a founding partner of Buffalo Manufacturing Works, a novel resource center for advanced manufacturing. Meanwhile, the new Department of Materials Design and Innovation (MDI)—a collaborative effort between the School of Engineering and Applied Sciences and the College of Arts and Sciences—is shaping the future leaders of this transformative field.

Thus it's no wonder that the American Society of Mechanical Engineers (ASME) chose UB to host its 2014 international conference. Last August, as many as 2,000 engineers from around the world—including industry leaders, scholars, entrepreneurs and students—gathered in Buffalo for four days of exhilarating discussions on robotics, computer-aided engineering, 3-D printing and other emerging technologies.

"The institute and the conference, as well as other initiatives at UB, illustrate that the university and the Buffalo Niagara region are moving in the right direction. We are working to advance the development and commercialization of design and manufacturing technologies that will support economic growth and create new good-paying jobs in Western New York and beyond."

VENKAT KROVI, ASSOCIATE PROFESSOR OF MECHANICAL AND AEROSPACE ENGINEERING AND THE CONFERENCE'S GENERAL CHAIR

A THIRST FOR KNOWLEDGE

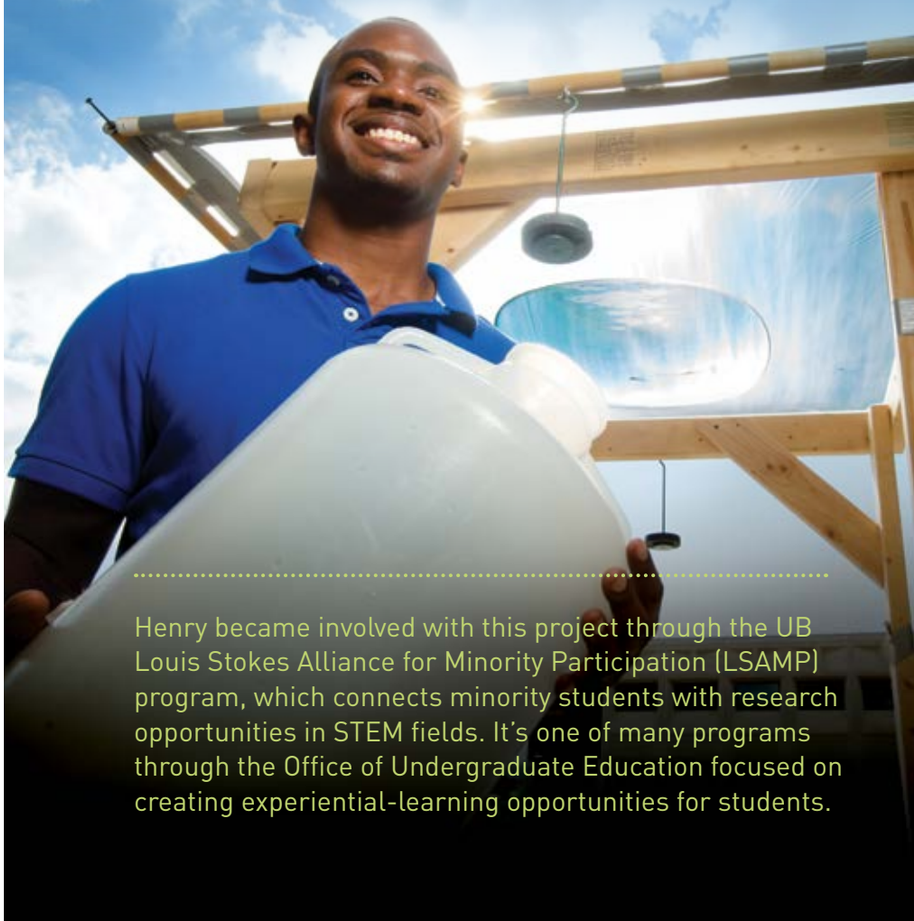
Experiential learning leads to a lifesaving innovation

EVERY STUDENT dreams of changing the world. Junior engineering major Deshawn Henry may have done it.

As a sophomore, Henry, working under engineering professor James Jensen, played a key role in testing and improving a solar-powered water lens, a revolutionary device that purifies polluted water at almost no cost. "Millions of people die every year from diseases and pathogens in unclean water, and they can't help it because that's all they have," said Henry. "Either they drink it or they die."

At UB, undergraduates often work directly with professors, conducting hands-on research with real-world impact. Henry studied ways to improve the efficiency of the water lens, which consists of plastic sheeting spread across a wood frame. When water is poured on the plastic, it pools in the center and forms a simple magnifying glass, enabling sunlight streaming through the lens to heat and disinfect a container of polluted water placed below.

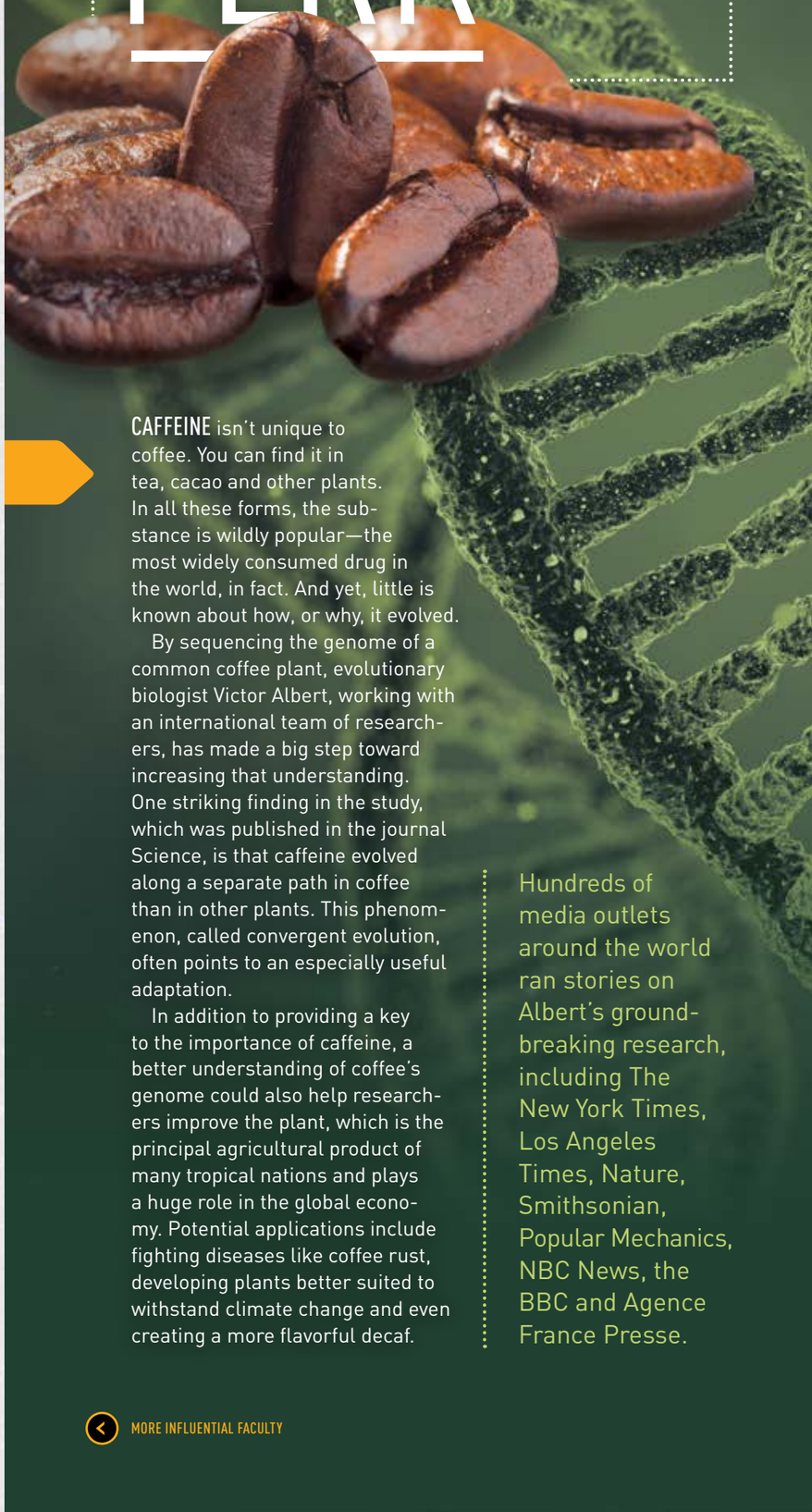
More than 1 billion people around the world lack access to clean drinking water, so it's not surprising that the project has drawn major media attention. In early 2015, Henry was interviewed alongside Jensen for the CBS show "Innovation Nation," which highlights the most promising new work being done by America's most visionary thinkers.



Henry became involved with this project through the UB Louis Stokes Alliance for Minority Participation (LSAMP) program, which connects minority students with research opportunities in STEM fields. It's one of many programs through the Office of Undergraduate Education focused on creating experiential-learning opportunities for students.

GENOMIC PERK

A UB scientist makes an eye-opening discovery about the evolution of caffeine



CAFFEINE isn't unique to coffee. You can find it in tea, cacao and other plants. In all these forms, the substance is wildly popular—the most widely consumed drug in the world, in fact. And yet, little is known about how, or why, it evolved.

By sequencing the genome of a common coffee plant, evolutionary biologist Victor Albert, working with an international team of researchers, has made a big step toward increasing that understanding. One striking finding in the study, which was published in the journal Science, is that caffeine evolved along a separate path in coffee than in other plants. This phenomenon, called convergent evolution, often points to an especially useful adaptation.

In addition to providing a key to the importance of caffeine, a better understanding of coffee's genome could also help researchers improve the plant, which is the principal agricultural product of many tropical nations and plays a huge role in the global economy. Potential applications include fighting diseases like coffee rust, developing plants better suited to withstand climate change and even creating a more flavorful decaf.

Hundreds of media outlets around the world ran stories on Albert's groundbreaking research, including The New York Times, Los Angeles Times, Nature, Smithsonian, Popular Mechanics, NBC News, the BBC and Agence France Presse.

MORE INFLUENTIAL FACULTY

OUR INFLUENTIAL FACULTY

Our faculty's outstanding contributions advance their respective fields and positively impact our world. These major achievements lead to major recognition. This year, more than 60 faculty members received important national and international honors, including prestigious fellowships and grants, career achievement awards, election as fellows of professional organizations, book and journal awards, and more.

LUIS A. COLÓN

A beloved chemistry professor, Colón traveled to the White House this spring to meet President Obama and receive a Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. He was one of 14 individuals in the country to receive this recognition.

MICHAEL C. CONSTANTINOU

Constantinou, a SUNY Distinguished Professor of Civil, Structural and Environmental Engineering and an internationally recognized earthquake expert, was the sole recipient of the Newmark Medal from the American Society of Civil Engineers for his work in the area of seismic protective systems.

MEGAN M. HOLLAND

An assistant professor of educational leadership and policy, Holland is the recipient of a 2015 Spencer Postdoctoral Fellowship from the National Academy of Education, a highly competitive program supporting early-career scholars working in critical areas of education research.

VENU GOVINDARAJU

Interim vice president for research and economic development and SUNY Distinguished Professor of Computer Science and Engineering, Govindaraju received the Outstanding Achievements Award from the International Conference on Document Analysis and Recognition, honoring his pioneering contributions to pattern recognition and the development of real-time engineered systems.

ROSEANNE C. BERGER

Berger, a senior associate dean for graduate medical education and associate professor of family medicine, was one of three leaders nationwide honored with a 2015 Parker J. Palmer Courage to Lead award for her achievements in building UB's medical training programs.

EDWARD H. STEINFELD

A SUNY Distinguished Professor in the School of Architecture and Planning, Steinfeld received the James Haecker Award for Distinguished Leadership in Architectural Research—one of his field's highest honors—for his groundbreaking work in inclusive design.

STEPHEN MCKINLEY HENDERSON

The featured arts and letters scholar of UB's 2015 Signature Series, Henderson is a distinguished actor, professor in the Department of Theatre and Dance, and winner of the 2015 Lucille Lortel Award for Outstanding Lead Actor in a Play for his performance in the Pulitzer Prize-winning drama "Between Riverside and Crazy."

SEBASTIAN G. CIANCIO

Ciancio, SUNY Distinguished Service Professor in the School of Dental Medicine, was the sole recipient of the 2014 Norton M. Ross Award from the American Dental Association (ADA) for his significant research achievements in pharmacology and periodontology.

DEBORAH P. WALDROP

Social work professor Waldrop received an Award of Excellence in Research from the Social Work Hospice and Palliative Care Network, recognizing her 16 years of research dedicated to advancing the field of palliative care.

LEVELING THE FIELD

The FAFSA project turns college dreams into reality

AT SOME Buffalo high schools, almost every student is eligible for financial aid to help pay for college. But there's often a major obstacle standing in their way: the FAFSA, or Free Application for Federal Student Aid.

Families must fill out this form if they want access to financial assistance. The problem is, it's notoriously long and complex, and particularly challenging for low-income students, who frequently have dynamic family situations, complicated financial issues or simply a mistrust of sharing their personal information.

Enter Nathan Daun-Barnett, associate professor of higher education administration in UB's Graduate School of Education. In 2011, he launched the FAFSA Completion Project, which uses a team of students, staff and volunteers to help families navigate the form. Since then the program has grown exponentially, resulting in an astounding 61 percent increase in the number of Buffalo Public School seniors completing the FAFSA in 2013.

The program continues to grow. In 2013-14, it expanded to include the charter high schools in Buffalo. There were also double the number of volunteers, who spent double the amount of time in each school, ultimately putting in 2,600 service hours and touching two-thirds of the FAFSA forms filed in the district.

Thanks to them, thousands of kids who might never have gone to college will now have the opportunities they deserve.

> "Middle- and upper-income families will go to college. While cost will affect where they decide to go, they will go somewhere. For low-income families, cost may be the reason they don't go at all."
>
> —NATHAN DAUN-BARNETT

MORE COMMUNITY ENGAGEMENT

PARTNERING WITH COMMUNITY

At UB, our mission is to create positive, lasting change in our local and global communities through the three pillars of public higher education: impactful research, experiential learning and engaged service. Here are just a few of the ways in which our students, faculty, alumni and staff support our various communities.

SCIENCE-MINDED

PREPARING WESTERN NEW YORK KIDS FOR THE JOBS OF THE FUTURE

What could be cooler than studying the science behind hockey? For about 500 Buffalo-area middle schoolers, not much. Except, maybe, for extracting DNA with a renowned UB researcher, or, for our youngest learners, discovering science with Curious George.

Buffalo-area students from kindergarten through high school enjoyed these and many other hands-on activities during the second annual Science Week, a citywide event jointly held by UB, SUNY, the city of Buffalo, Buffalo Public Schools and a dozen other participants.

Along with the Interdisciplinary Science and Engineering Partnership (ISEP), a UB-led collaborative program aimed at making science education in Buffalo Public Schools more engaging, Science Week was designed to encourage local students' interest in STEM (science, technology, engineering and math) fields. As Buffalo Mayor Byron Brown proclaimed, alluding to Western New York's fast-growing life sciences and advanced manufacturing industries, "STEM jobs are our city's future."

Other Science Week highlights included Reading Science Aloud with Sabretooth at a local elementary school; the ISEP Science Summit at the Buffalo Museum of Science, where students from ISEP demonstrated their science projects; and Tech Savvy for Girls on UB's North Campus, where middle-school girls explored STEM careers through workshops run by scientists, physicians and engineers from UB and other institutions.

In the words of event organizer and SUNY Trustee Eunice Lewin, "We all win when events and programs like Science Week encourage more Buffalo students to consider careers in science and technology."

MORE WAYS WE EFFECT CHANGE, AT HOME AND ABROAD

HEALING BODIES AND MINDS

Faculty volunteers and alumni from the UB dental school raise money, secure equipment and space, and otherwise help associate professor Othman Shibly (pictured) run the dental clinics he established in Syrian refugee camps in the Middle East after he witnessed conditions in a camp in 2012 and was moved to act. Most recently, he and Syrian teachers have teamed up to establish several underground schools—literally located in basements around Damascus—to help educate around 5,000 children in the war-torn country.

THE LEGAL BATTLEGROUND

Through the newly launched Veterans Legal Clinic, UB law students and faculty provide free civil legal services to Western New York veterans, many of whom face overwhelming legal and financial issues such as custody challenges, benefit denials and bankruptcy. Clinic students are on the front line of the legal work for veteran clients through every step of the process.

A WORLD OF ASSISTANCE

As medical director of the Western New York Center for Survivors of Refugee Trauma and Torture, UB physician and public health researcher Kim Griswold (pictured) provides crucial assistance to asylum seekers while simultaneously giving UB students invaluable training in caring for people from diverse cultural backgrounds. In addition to providing medical and psychiatric referrals to refugees, it is one of four centers in Western New York authorized by the U.S. government to help asylum seekers gain legal status.

GIANT SHIPS AND DANCING ORGANS

Working with a world-famous director, UB students stage a remarkable show

"THE SHOW we're making is... not your typical production," said Doug Fitch of "How Did We...?," the work he created with students, faculty members and staff from the theatre and music departments while in residence at UB in fall 2014. "There's a volcano on stage. There's dancing sensory organs. And there is African water drumming."

For many of the students, the most memorable aspect of the production was not its surreal elements; it was the opportunity to work side by side with the internationally renowned artist, producer, director and designer. The WBFO Visiting Professor in the College of Arts and Sciences involved UB people in all aspects of the production, from creating the sets and costumes to the actual show; UB students filled the acting roles, while both students and faculty members contributed original compositions to the live score.

Fitch's semesterlong residency reflects the university's commitment to providing students a first-rate educational experience, including the opportunity to learn from leading artists, scientists and scholars. Fitch has led award-winning theatrical productions for major arts institutions around the world, including the Metropolitan Museum of Art, the Los Angeles Philharmonic and the Royal Stockholm Philharmonic Orchestra.

> "The folks here at UB are constantly surprising me with their creativity and originality. There's a kind of general 'OK, we can do it' feeling about things, no matter how crazy they are."
>
> —DOUG FITCH

NOVEMBER 2014

154. 'Wee beasties' inside us can help as well as hurt, says microbiome expert
155. UB will present a public spectacle of student arts
156. Can love make us mean?
157. 'Learn the Facts of Ebola': Free talk by UB medical school faculty
158. Expansion of gambling does not lead to more problem gamblers, study finds
159. UB to hold Veterans Day celebration
160. Activities slated for 2014 Global Entrepreneurship Week at UB
161. Preschoolers eat healthy when parents set rules about food, UB study finds
162. **A 3-D, talking map for the blind (and everyone else)**
163. UB Law School announces new Veterans' Economic Security Clinic
164. MAC champions! Bulls blank Broncos to advance to first-ever NCAA Tournament
165. Irish poet Eavan Boland to present UB 2014 Oscar Silverman Reading
166. Sweet music or sour notes? The test will tell
167. Love Canal activist to speak at UB School of Management
168. Months after IED blasts, vision may fade
169. UB students join 'It's On Us' sexual assault prevention campaign
170. UB MBA program cracks top 40 in Bloomberg Businessweek ranking
171. School of Management announces winners in accounting challenge
172. UB's Douglas Basford receives 2015 NEA Literature Translation Fellowship
173. Wearable tech for the battlefield and people at risk for heart attacks
174. 'Open on Thanksgiving' not good strategy for retailers, expert says
175. Three UB faculty members named SUNY Distinguished Professors
176. UB's Career Community creating global mentoring network
177. A carry-on that charges your smartphone (and more)
178. UB medical students bring 'Tar Wars' tobacco-free message to hundreds of fourth- and fifth-graders
179. Rochester economist to discuss children's academic performance and parental involvement
180. UB again among the top 20 U.S. universities hosting international students
181. UB expert breaks down the science behind possible flooding
182. Measuring the fear of Ebola
183. A hybrid vehicle that delivers DNA
184. UB sports law expert featured in documentary on defection of Alexander Mogilny

DECEMBER 2014

185. Leipold named 25th University at Buffalo head football coach
186. UB graduate student in public health receives $18,000 fellowship from AAUW

BRINGING THE LANDSCAPE TO LIFE

A 3-D talking map helps visually impaired visitors find their way

IMAGINE A MAP that helps you not just see, but *hear* where you're going. A map that literally tells you how to get from point A to point B.

That's one of the newest innovations to come out of UB's Center for Inclusive Design and Environmental Access (IDeA Center), a part of the UB School of Architecture and Planning dedicated to making environments and products accessible to all segments of the population.

While the maps enhance the wayfinding experience for everyone, they were specifically designed to address the "last-mile" problem experienced by the blind. Audible GPS can get them to a specific place—a museum, say, or a college campus—but they are often left to their own devices once inside a building or public space.

To date, the IDeA Center, working with Touch Graphics Inc., has created three talking map models, each of which is located at a different institution for the blind. When you run your hands over a map, every building or feature you touch announces its name, a description of activities occurring there and directions to its location. There are also sound effects that serve as auditory landmarks—for example, on the map created for the Perkins School for the Blind in Massachusetts, chimes ring when you touch the bell tower.

"It's really about giving this population a way to understand their environment," said IDeA Center researcher Heamchand Subryan. "We're providing a level of information that allows them to navigate their environment easily, without help."

ON THIN ICE

UB researchers discover that one of the world's largest ice sheets may be vanishing faster than we thought

THE GREENLAND ICE SHEET is the second largest block of ice on the planet. If it melted completely, ocean levels could increase 20 feet, wreaking havoc from Miami to Mumbai. Despite its massive size and global importance, however, little has been known about how quickly the ice sheet will shrink as a result of climate change.

The chilling reality is that Greenland may lose ice more rapidly than we previously thought, according to the most in-depth study of the region to date, led by UB Associate Professor of Geology Beata M. Csatho.

Csatho and her team studied nearly 100,000 locations, identifying areas of rapid shrinkage that current climate models miss. "The great importance of our data is that for the first time, we have a comprehensive picture of how all of Greenland's glaciers have changed over the past decade," Csatho says.

The research also shows that current simulations, which use the activity of just four glaciers to forecast how the entire ice sheet will act, are too simplistic to accurately predict how the ice sheet may contribute to rising oceans. "The local climate and geological conditions, the local hydrology—all of these factors have an effect," Csatho says. "The current models do not address this complexity."

Csatho worked with UB research professor Anton Schenk to develop a computational technique called Surface Elevation Reconstruction And Change (SERAC) detection, which fused together massive amounts of data from NASA satellite and aerial studies.

Next up for the research team is investigating why some glaciers respond differently to warming than others, and uncovering new ways to examine the causes—and effects—of global climate change.

UB led an international team for this massive study, including researchers from the University of Kansas, Utrecht University in the Netherlands, the Technical University of Denmark and Florida Atlantic University.

221. UB's Stephen McKinley Henderson back on stage in February

222. Trauma Institute honored for service to HIV and AIDS treatment

223. UB embracing winter season with traditional outdoor activities

224. UB receives 'Best of Green Schools' honor

225. Berger wins national honor for graduate medical education

226. This endoscope zaps tumors

227. Four new companies approved for START-UP NY via UB

228. Did you know? Twelve amazing UB discoveries from 2014

JANUARY 2015

229. Positive personality traits may protect police at high risk for PTSD

230. Program by UB and community partners could help reshape the national rural health care landscape

231. Alcohol warnings from parents matter

232. UB celebrates birthday, local legacy of Millard Fillmore

233. UB to offer certificate program aimed at increasing efficiency, quality at medical practices

234. UB's education, nursing online programs make U.S. News rankings

235. Researchers shake California warehouse with 50 tons of force

236. One nanoparticle, six types of medical imaging

237. Breathing new life into Buffalo through the Buffalo Institute for Genomics and Data Analytics (BIG)

238. The Wild West of physics

239. Diet affects brain iron levels differently in men and women, UB pilot study shows

240. Bak USA celebrates grand opening in Buffalo

241. UB School of Management students offer free tax preparation services

242. Profitable phishing schemes slyly tinker with our heads, then rip us off

243. National study finds strong association between menopausal symptoms and bone health

244. Student startups compete for funding at new UB incubator open house

245. Public startups boom under JOBS Act, study shows

246. UB team partners with NASA to design, implement and evaluate global obesity prevention programs

247. SUNY Chancellor Zimpher highlights UB's 'Finish in 4' program as a best practice

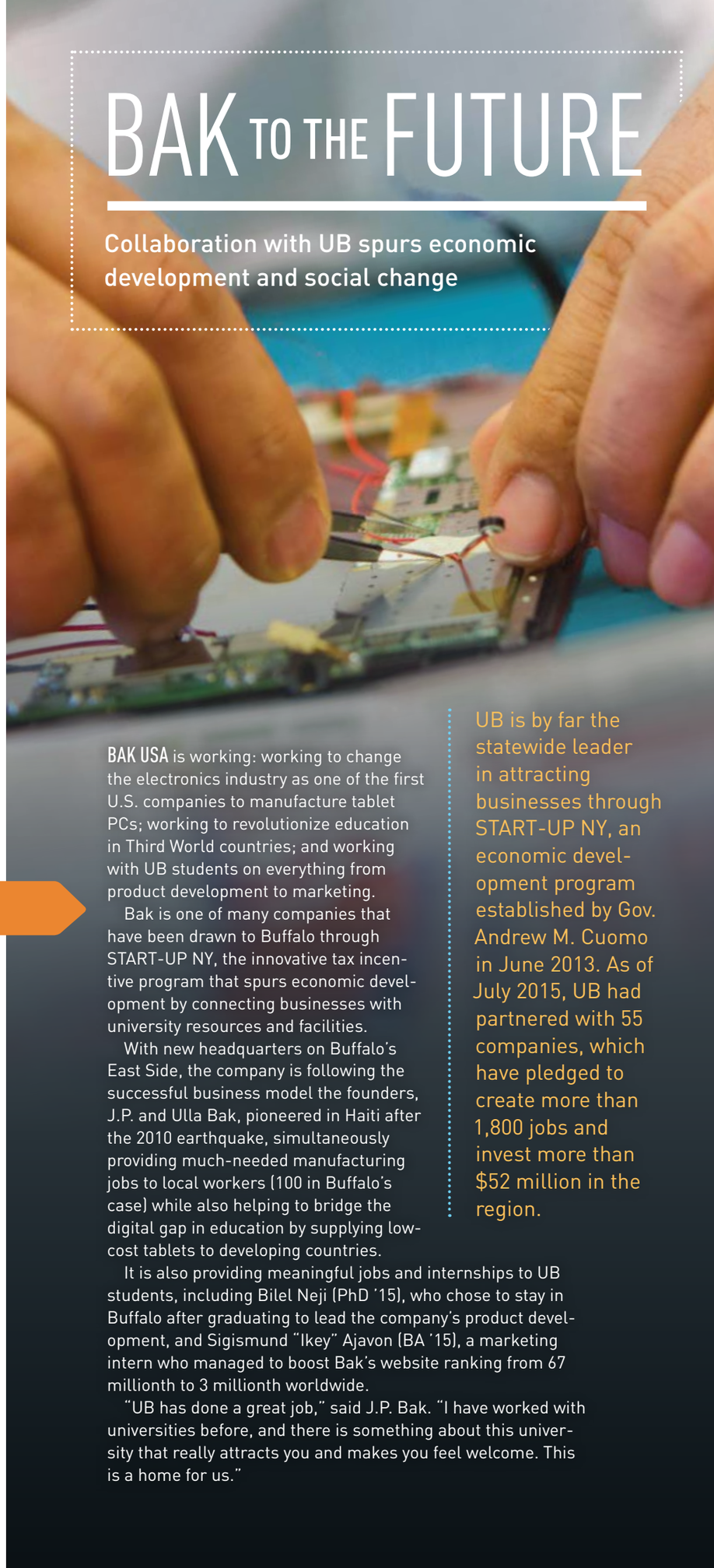
248. UB plans new graduate specialization in real estate development

249. Concentrating on word sounds helps reading instruction and intervention

250. UB, RPCI researcher named statistical reviewer for Department of Defense transplantation research program

251. Norma Nowak named executive director of UB's New York State Center of Excellence in Bioinformatics and Life Sciences

252. Did genetic links to modern maladies provide ancient benefits?



BAK TO THE FUTURE

Collaboration with UB spurs economic development and social change

BAK USA is working: working to change the electronics industry as one of the first U.S. companies to manufacture tablet PCs; working to revolutionize education in Third World countries; and working with UB students on everything from product development to marketing.

Bak is one of many companies that have been drawn to Buffalo through START-UP NY, the innovative tax incentive program that spurs economic development by connecting businesses with university resources and facilities.

With new headquarters on Buffalo's East Side, the company is following the successful business model the founders, J.P. and Ulla Bak, pioneered in Haiti after the 2010 earthquake, simultaneously providing much-needed manufacturing jobs to local workers (100 in Buffalo's case) while also helping to bridge the digital gap in education by supplying low-cost tablets to developing countries.

It is also providing meaningful jobs and internships to UB students, including Bilel Neji (PhD '15), who chose to stay in Buffalo after graduating to lead the company's product development, and Sigismund "Ikey" Ajavon (BA '15), a marketing intern who managed to boost Bak's website ranking from 67 millionth to 3 millionth worldwide.

"UB has done a great job," said J.P. Bak. "I have worked with universities before, and there is something about this university that really attracts you and makes you feel welcome. This is a home for us."

UB is by far the statewide leader in attracting businesses through START-UP NY, an economic development program established by Gov. Andrew M. Cuomo in June 2013. As of July 2015, UB had partnered with 55 companies, which have pledged to create more than 1,800 jobs and invest more than $52 million in the region.

253. Eleven companies, including 43North winners, approved for START-UP NY through UB

254. $32K awarded to four University at Buffalo students for startup funding

FEBRUARY 2015

255. UB, Kaleida and ECMC name Schwaitzberg new chair of surgery and medical director of surgical program development

256. CBS to feature UB water lens research

257. UB launches its Center for Educational Innovation with an open house

258. RIA neuroscience study points to possible use of medical marijuana for depression

259. Cummings Foundation awards $1 million to UB's new medical school

260. Hardy geologists turn out for annual Groundhog Day celebration

261. Families at the forefront of UClub 2.0

262. Study links new genetic anomalies to breast cancer in African-American families

263. Orsi to lead UB's economic development efforts

264. Measles lessons: UB medical faculty tweak how they teach

265. Neurologic conditions of U.S. presidents are subject of UB Grand Rounds

266. Playing games with the economy

267. Use of 'digital badges' in schools would motivate students, research shows

268. Isaac Ehrlich named to National Academy of Sciences panel

269. UB's Cecil Foster named to jury that will select 2015 winner of 'Canada's Pulitzer'

270. The bully of the Bills: Has he improved himself as a person and teammate?

271. Smiles are bright as UB dental school gives back to the community

272. Winter weather depriving city dwellers of vitamin D

273. Would you take dieting advice from a friend?

274. Princeton Review ranks UB among top universities that 'Pay You Back'

275. Magic 'over-delivers' as MLK speaker

276. UB researcher has some questions for the interview

277. UB Confucius Institute, Chinese Club of WNY usher in year of the goat

278. UB neurosurgeons report new standard for stroke care

279. WNY's renaissance: For people of all ages?

280. UB leaders to discuss how manufacturing innovation is driving economic development in WNY

281. UB Humanities Night to feature O'Neill's 'The Hairy Ape'

282. Study: Terror attacks offer insights for first responders

283. Social media can help alert students during campus emergencies, study finds

284. Overcoming our e-waste problem

285. UB's John Violanti to testify before federal Task Force on 21st Century Policing

A NEW STANDARD FOR STROKE CARE

"Game-changing" discovery has the potential to revolutionize treatment

"THEY CALLED US COWBOYS," said Elad Levy, professor and chair of UB's Department of Neurosurgery, recalling the response from other neurosurgeons when he and his colleagues presented the use of a wire mesh stent device for treating stroke in the early 2000s.

Their pioneering methodology has received increasing validation over the years. Now, a new international clinical study led by Levy and co-author Adnan Siddiqui, professor and vice chair of neurosurgery at UB, is further proof that the UB researchers (originally led by Levy's mentor, former department chair L. Nelson "Nick" Hopkins) were right all along.

Published in the New England Journal of Medicine, the paper found that stroke patients had an 88 percent revascularization rate when they received clot-busting drugs in conjunction with the stent. Without it, the success rate plummeted to 35 percent.

The device is inserted through a tiny incision in the groin, then threaded through the arteries by catheter until it reaches the blocked blood vessel in the brain. When opened, it captures the clot and pulls it out as the catheter is removed. Normal blood flow is quickly restored and damage to the brain mitigated.

The treatment "provides the patient the absolute best chance for a positive outcome," said Levy. "In many cases, there's no need for the ICU and no need for rehabilitation. This is a game-changer."

TIME BBC The New York Times

THE WALL STREET JOURNAL. WIRED NATIONAL GEOGRAPHIC

USA TODAY THE HUFFINGTON POST

THE GLOBE AND MAIL NBC NIGHTLY NEWS

UB MAKES THE NEWS

FACULTY EXPERTS IN THE SPOTLIGHT

NSF INTERNATIONAL ARCHITECT BUSINESS TIMES npr

Forbes TheScientist

THE TIMES OF INDIA Los Angeles Times

FAST COMPANY FUTURITY

CHINA DAILY USA

"It is clear that the talent has become the focus of intense global competition. It is a relatively recent phenomenon that coincides with the emergence of a global knowledge economy, dependent on highly skilled and creative professionals and business leaders."

—UB PRESIDENT SATISH K. TRIPATHI *on the global competition for international talent*

THE SCIENTIST

"When you have the kind of rampant DNA deletion that we see in the bladderwort, the genes that remain—and their functions—are the ones that were able to withstand this deletion pressure, so the selective advantage of having these genes must be pretty high."

—VICTOR ALBERT, BIOLOGICAL SCIENCES PROFESSOR *and lead author of an international study that discovered that the tiny genome of the carnivorous bladderwort plant contains a jewel box of evolutionary treasures*

LOS ANGELES TIMES

"Early life exposures to sodium and sugar can set taste preferences and determine health trajectories."

—UB PEDIATRICIANS SUSAN BAKER AND ROBERT BAKER *on a CDC study showing that pre-packaged toddler foods contain high amounts of sodium and added sugar*

THE ATLANTIC

"Women are less compelled to be traditional and conservative in their modes of expression. They can often be at the forefront of linguistic shifts."

—ALEXANDRA KING, ASSISTANT PROFESSOR OF PHILOSOPHY, *in an article about expressive hashtags and why men's Twitter messages are retweeted more often than women's*

NPR BERLIN

"We're not necessarily going to see that everyone who eats their placenta gets wildly sick or has major medical problems. Evolution can work on very subtle positive and negative effects over generations."

—PSYCHOLOGY PROFESSOR AND PLACENTAPHAGY EXPERT MARK KRISTAL *on a new study reviewing scientific evidence on the effects of human placentaphagy*

USA TODAY

"There is not one silver bullet. The reality of our lives is that these threats are anywhere and everywhere."

—COMMUNICATIONS PROFESSOR ARUN VISHWANATH, *about federal legislation encouraging private companies to share information with the government about data breaches*

SCIENCE DAILY

"Some of the phenomena we are exploring ... may not exist. But if we never ask the question, we'll never find out. If we discover that they do exist, the implications will be enormous in terms of our understanding of the universe."

—PHYSICIST DEJAN STOJKOVIC, *lead researcher of a UB study aimed at bridging the gap between the study of "outer space" (stars and galaxies) and "inner space" (fundamental particles and forces)*

THE WASHINGTON POST

"To the extent this goes out to the public, it can lead to unreasonable expectations."

—JO L. FREUDENHEIM, PROFESSOR OF EPIDEMIOLOGY AND ENVIRONMENTAL HEALTH, *on a recent study challenging the widespread belief that certain "super foods" can help prevent cancer*

INTERNATIONAL BUSINESS TIMES, AUSTRALIAN EDITION

"Every cell in your body is responsive to vitamin D. If you're deficient, you won't see the health effects for years and it could take months to get your levels back up."

—PETER HORVATH, ASSOCIATE PROFESSOR OF EXERCISE AND NUTRITION SCIENCES, *on findings that vitamin D deficiency may affect up to 25 percent of those who live in snowy, northern climates*

THE GUARDIAN

"The idea of clowns as children's entertainers has actually only been a very small and recent part of the history of clowning."

—ENGLISH PROFESSOR ANDREW STOTT *on the declining popularity of clowns, a cornerstone of the entertainment industry for more than 200 years*

GOOD MAGAZINE

"We're at a moment where biometrics have so deeply and broadly changed what a face means. All the different ways that the face is a quantitative surface permeates through the world today."

—ZACH BLAS, ASSISTANT PROFESSOR OF ART, *on the masks he has created in order to subvert biometric technology that can capture, store and analyze facial characteristics*

BIOSCIENCE TECHNOLOGY

"It turns out that when we study only today's known viruses, we can grossly underestimate viral ages, diversity and interactions with hosts."

—BIOLOGIST DEREK TAYLOR *on the UB study he led showing that the Ebola and Marburg viruses are 16 million to 23 million years old, not thousands of years old as previously thought*

PREVENTION MAGAZINE

"Including your spouse in your network of friends is nearly as important for marital happiness as making them feel they are a part of your family."

—KENNETH LEONARD, DIRECTOR OF UB'S RESEARCH INSTITUTE ON ADDICTIONS, *in an article on how the intermingling of a couple's family and friends can contribute to a happier marriage*

FAST COMPANY

"We suggest that the gender difference in narcissism is driven by gender role beliefs regarding what is considered appropriate behavior for men and women."

—EMILY GRIJALVA, ASSISTANT PROFESSOR OF ORGANIZATION AND HUMAN RESOURCES, *on the study she led showing that men are more likely to demonstrate narcissistic behavior than women*

GIZMAG

"The system we've created is surprisingly flexible. We have established a platform for using E. coli to produce erythromycin, and now that we've got it, we can start altering it in new ways."

—BLAINE PFEIFER, ASSOCIATE PROFESSOR OF CHEMICAL AND BIOLOGICAL ENGINEERING *and lead researcher on a UB study that harnessed E. coli bacteria to produce new forms of antibiotics*

THE NEW YORK TIMES

"Things are headed in a direction where Lancaster and all other school districts will do away with insensitive mascots. Many have done away with them already."

—SOCIAL WORK PROFESSOR HILARY WEAVER *on the contentious debate in Lancaster, N.Y., over the then-name of the school district's mascot, the Redskins*

HUFFINGTON POST

"I think the world has a tendency to romanticize prison escapees, but the reality is that [the escape has] made life much harder for other inmates."

—TERESA MILLER, PROFESSOR OF LAW, *on the likely fallout suffered by other inmates after a prison break in upstate New York.*

BUZZFEED NEWS

"There are systems that buy access to social media and mine that data. Social media plays a significant role in financial markets."

—TERO KARPPI, ASSISTANT PROFESSOR OF MEDIA STUDY, *on his case study looking at how social media data intersect with financial algorithms, and the potential consequences of that integration (in this case, a brief stock market crash caused by a hacked AP Twitter account)*

CPHL (CHINA'S LARGEST B2B MARKETPLACE FOR THE PHARMACEUTICAL INDUSTRY)

"We have proven that you can easily attach proteins to nanoparticles and, like Velcro that doesn't unstick, it stays together."

—BIOMEDICAL ENGINEER JONATHAN LOVELL *on finding an easy and effective way to fasten proteins to nanoparticles, a discovery that has potential implications for developing an HIV vaccine and targeting cancer cells*

ALL THE WORLD'S ON STAGE

The International Fiesta thrills crowd at sold-out show

WITH DRUMMERS and dancers, cymbals and sword fights, it's no surprise that the International Fiesta is one of the most popular student-run events on campus.

As usual, the annual talent competition packed the house, filling all 1,744 seats in the Center for the Arts Mainstage Theatre for the highly anticipated event.

For nearly three hours, the audience sat spellbound as 15 international student clubs brought their unique cultures to life in breathtaking performances. Students from the U.S. and abroad rehearsed for months to perform traditional African dancing and Japanese sword-fighting, Bollywood beats and Asian hip-hop. But it was the Latin American Student Association's depiction of the Latin American diaspora, incorporating dazzling dance moves from the coasts of South America to the streets of New York City, that stole the evening—and won the top prize.

The fiesta is just one example of UB's tremendous diversity, Not only are its domestic students from all walks of life, but the university consistently ranks in the top 20 in the nation for international student enrollment, with 5,000-plus students hailing from 115 countries. As Tazrin Hossain, council coordinator for the undergraduate Student Association (the fiesta's sponsor), said, "We may come from different places, but our paths cross."

With 17 percent of the student body composed of international students, even those who don't study abroad get an international experience. But many do study abroad: 7 percent of all enrolled students, in fact, or seven times the national average.

MORE TRUE-BLUE TRADITIONS

TRADITIONS
OLD AND NEW

Our campus life is as diverse and dynamic as our student body, with more than 300 academic and cultural clubs driving popular traditions like International Fiesta. Even better, our students are always finding novel ways to connect, bringing new ideas and fun activities into the fold that help give UB's large university a small-college feel.

BOATING LAKE LASALLE

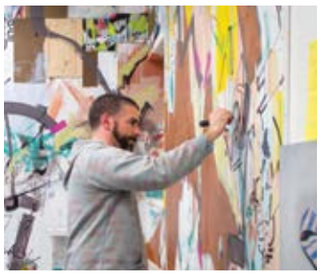
For the first time in its 45-year history, the North Campus' most photogenic spot was opened last summer to public kayaking and canoeing.

CRITICAL CONVERSATIONS

Now in its third year, this presidential program brings the country's top scholars to campus for a public discussion of the major issues of our time, from "big data" to the microbiome.

WARM WEATHER WEDNESDAYS

UB began hosting this fun series of outdoor events on the North Campus in 2014, with public activities ranging from drumming and disc golf to painting flowerpots and flying kites.



OPEN CFA

In November, the inaugural Open CFA at the Center for the Arts celebrated the creative work—and work in progress—of students in the departments of art, theatre and dance, and media study.

THERAPY DOGS

During final exams each semester, the UB Libraries bring trained therapy dogs to campus to deliver stress-busting snuggles and face-licking. The program is so popular, it's being emulated by campuses around the world.

"MORE COWBELL"

Started by a passionate fan (in homage to a "Saturday Night Live" skit), the clanking of the cowbell revved up UB students—and went viral on social media—as the men's basketball team won the MAC and headed to the Big Dance.

319. UB grad school programs again ranked among nation's best by U.S. News & World Report

320. In wintry Buffalo, a café heated daily with just six logs of wood

321. For 80 years, ancient gold treasure rested undisturbed in UB library

322. Justin Moss named MAC Player of the Year

323. Research shows Native American imagery hurts all ethnic groups, says UB psychologist

324. Skating, reading, extracting DNA—students engage in Science Week '15

325. New study shows surprising risk created by access to personal information online

326. New evidence that increasing economic inequality rises out of political partisanship

327. UB students expand their comfort zone for Alternative Spring Break

328. UB Bulls fans reveling in March Madness

329. New study links aging with increased trust and well-being

330. UB and Roswell Park to welcome 400 Buffalo Public Schools students to Genome Day

331. The Bulls are MAC champions!

332. Jones, Morgan slash records to earn All-America accolades; Bulls finish 15th nationally

333. UB sports law expert Helen Drew tackles domestic violence and discipline in the NFL

334. UB TCIE to train unemployed workers through state Department of Labor grant

335. UB women's hoops invited to first-ever WNIT

336. Wactawski-Wende named public health dean at UB

337. President Obama picks UB to win against West Virginia on Friday

338. RIA's Spring Seminar Series to focus on smoking and alcohol

339. Colloquium explores technology's impact on social relationships and art

340. UB to honor inventors and entrepreneurs at reception

341. UB summit to explore big data and computing

342. Ten individuals and one organization to be honored by the UB Alumni Association

343. Lovers of music and voice, rejoice: Science & Art Cabaret to tackle sound

344. Leadership conference to feature national and regional executives

345. Learning to think, talk and act like an engineer

346. Love the cook, love the food: Attraction to comfort food linked to positive social connections

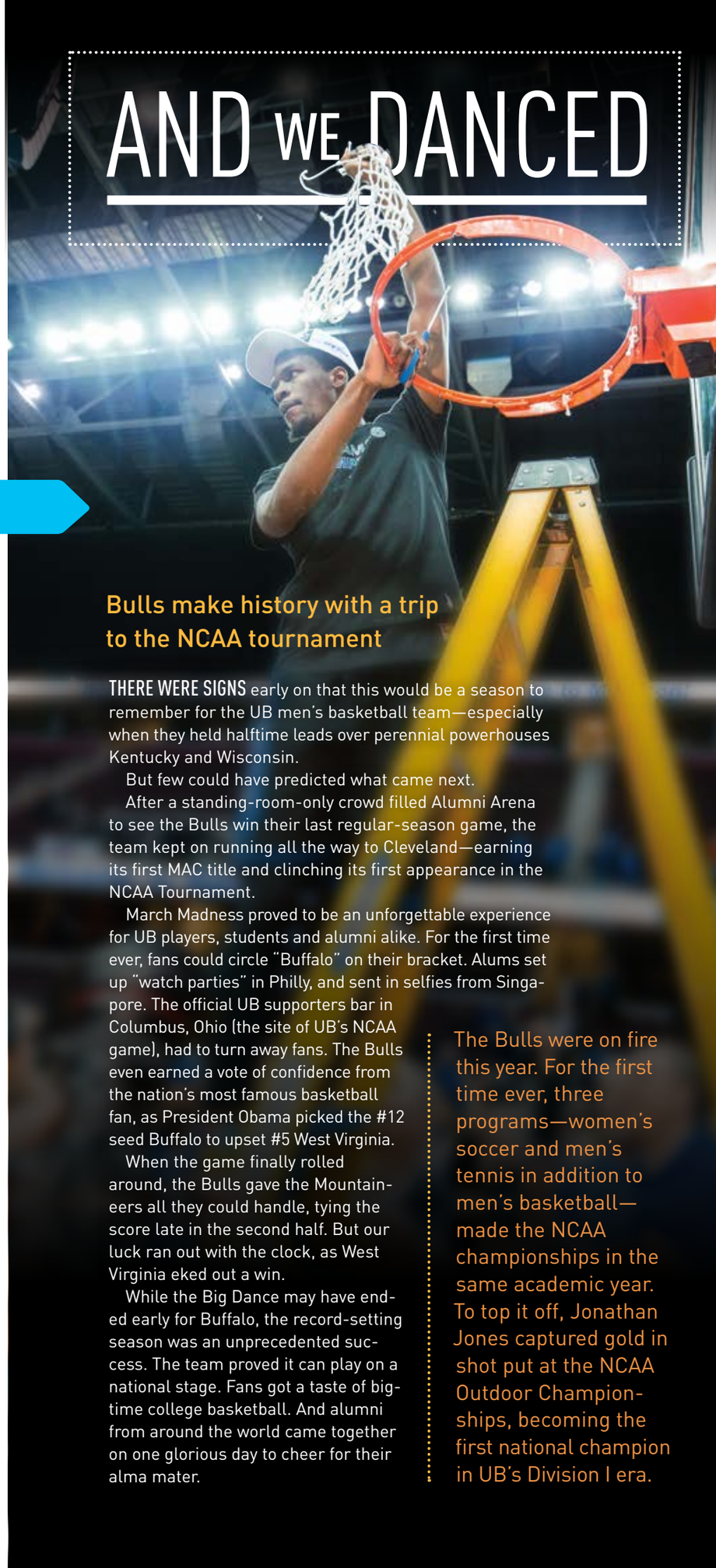
347. GSE speaker: No silver bullet to promoting higher education success

348. Trailblazing social-change entrepreneur Veronika Scott to visit UB

349. Did coalition-building by Old World monkeys influence the evolution of human social structures?

350. 2015 UB Signature Series will celebrate award-winning career of Stephen McKinley Henderson

AND WE DANCED



Bulls make history with a trip to the NCAA tournament

THERE WERE SIGNS early on that this would be a season to remember for the UB men's basketball team—especially when they held halftime leads over perennial powerhouses Kentucky and Wisconsin.

But few could have predicted what came next.

After a standing-room-only crowd filled Alumni Arena to see the Bulls win their last regular-season game, the team kept on running all the way to Cleveland—earning its first MAC title and clinching its first appearance in the NCAA Tournament.

March Madness proved to be an unforgettable experience for UB players, students and alumni alike. For the first time ever, fans could circle "Buffalo" on their bracket. Alums set up "watch parties" in Philly, and sent in selfies from Singapore. The official UB supporters bar in Columbus, Ohio (the site of UB's NCAA game), had to turn away fans. The Bulls even earned a vote of confidence from the nation's most famous basketball fan, as President Obama picked the #12 seed Buffalo to upset #5 West Virginia.

When the game finally rolled around, the Bulls gave the Mountaineers all they could handle, tying the score late in the second half. But our luck ran out with the clock, as West Virginia eked out a win.

While the Big Dance may have ended early for Buffalo, the record-setting season was an unprecedented success. The team proved it can play on a national stage. Fans got a taste of big-time college basketball. And alumni from around the world came together on one glorious day to cheer for their alma mater.

The Bulls were on fire this year. For the first time ever, three programs—women's soccer and men's tennis in addition to men's basketball—made the NCAA championships in the same academic year. To top it off, Jonathan Jones captured gold in shot put at the NCAA Outdoor Championships, becoming the first national champion in UB's Division I era.

GAINING MOMENTUM

As the new building for the medical school rises, so do admissions

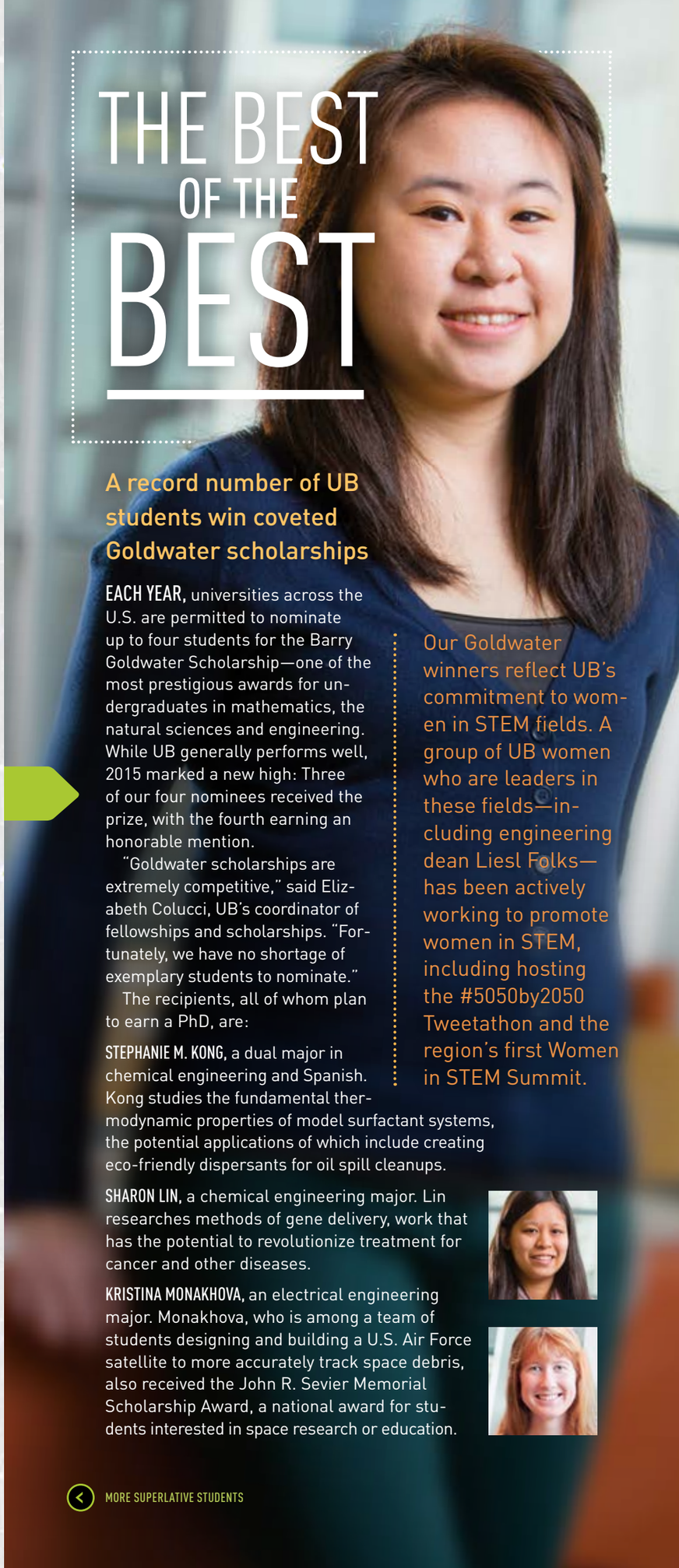
IT ISN'T OPENING UNTIL 2017. But UB's new building for the School of Medicine and Biomedical Sciences is already having an impact, and not just on the downtown skyline.

Applications to the school are up 3.5 percent, while more accepted students are choosing UB. Meanwhile, new faculty hires continue apace in anticipation of the student body growing by nearly one-third for the first class in the new building. "The excitement created by the project is helping to raise awareness about the quality of our medical school," notes Charles M. Severin, associate dean for medical education and admissions.

Rising from a 45-foot foundation hole at the corner of Main and High streets, the $375 million facility is the largest medical education building under construction in the U.S. Officials anticipate using 4,000 gallons of paint, more than 1 million square feet of drywall, and enough steel, if laid end to end, to stretch 25 miles—five times the distance from UB's South Campus to the downtown construction site.

A centerpiece of the UB 2020 strategic plan, the new building is also expected to bring 2,000 faculty, students and staff to downtown Buffalo on a daily basis. Most exciting, it will play an integral role in the creation of a comprehensive, collaborative academic health center—a hub for research, education and patient care that will elevate all three by virtue of their proximity to one another.

> "When basic science and clinical departments are near each other, they can collaborate. There's a much better opportunity to do translational research when you have those synergies working together."
>
> **—ANNE B. CURTIS, PROFESSOR AND CHAIR, DEPT. OF MEDICINE**



THE BEST OF THE BEST

A record number of UB students win coveted Goldwater scholarships

EACH YEAR, universities across the U.S. are permitted to nominate up to four students for the Barry Goldwater Scholarship—one of the most prestigious awards for undergraduates in mathematics, the natural sciences and engineering. While UB generally performs well, 2015 marked a new high: Three of our four nominees received the prize, with the fourth earning an honorable mention.

"Goldwater scholarships are extremely competitive," said Elizabeth Colucci, UB's coordinator of fellowships and scholarships. "Fortunately, we have no shortage of exemplary students to nominate."

The recipients, all of whom plan to earn a PhD, are:

STEPHANIE M. KONG, a dual major in chemical engineering and Spanish. Kong studies the fundamental thermodynamic properties of model surfactant systems, the potential applications of which include creating eco-friendly dispersants for oil spill cleanups.

SHARON LIN, a chemical engineering major. Lin researches methods of gene delivery, work that has the potential to revolutionize treatment for cancer and other diseases.

KRISTINA MONAKHOVA, an electrical engineering major. Monakhova, who is among a team of students designing and building a U.S. Air Force satellite to more accurately track space debris, also received the John R. Sevier Memorial Scholarship Award, a national award for students interested in space research or education.

Our Goldwater winners reflect UB's commitment to women in STEM fields. A group of UB women who are leaders in these fields—including engineering dean Liesl Folks—has been actively working to promote women in STEM, including hosting the #5050by2050 Tweetathon and the region's first Women in STEM Summit.

MORE SUPERLATIVE STUDENTS

OUR STELLAR STUDENTS

As our trio of Goldwater Scholarship winners illustrates, the paths to success at UB are rich and varied, offering talented learners from all corners of the university a chance to excel in the classroom, laboratory, community—or halfway across the world. Here are a few students who shone particularly bright this past year.

FAR-FLUNG FULBRIGHTS

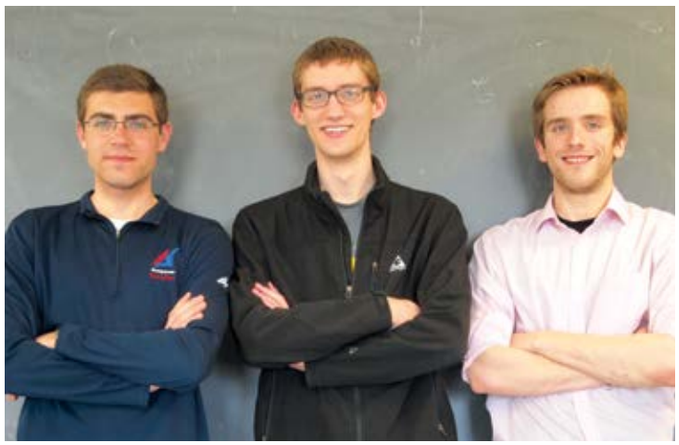
Our 2015 Fulbright scholars are taking their talents around the globe. **ABIGAIL LAPLACA,** a UB Presidential Scholar, is teaching young children in Panama, while anthropology major **ANNA PORTER** explored a major archeological site in the United Kingdom as part of the selective Fulbright Summer Institute. **SAMAH ASFOUR** (pictured), a recent graduate in political science and global gender studies, is in Jordan this fall on an English teaching assistantship.

ACING THEIR "ORALS"

If at first you succeed, why not keep doing it? This year, **ALL UB DENTAL STUDENTS** achieved an impressive 100 percent pass rate on the National Board Dental Examination, a rigorous, two-part test that dentists must pass in order to be licensed. The entire class of 2016 passed Part I of the challenging exam, while all members of the class of 2015 passed Part II.

MAKING THEIR CASE

They may have been first-year students, but that didn't stop **ROHIT SALLAGUNDLA, ERIN DINGS, RYAN FOGLE** and **SEONG HEE (LUKE) KIM** from taking first place in the prestigious Whitman Competition in March—the fifth consecutive year a UB School of Management team has placed in the top two at the national business case competition. Another UB team took third place this year.



A HEAD FOR NUMBERS

Three students majoring in mathematics/physics, computational physics and aerospace engineering—**DANTE IOZZO, NIGEL MICHKI** and **ANDREW HARRIS,** respectively—formed an unstoppable interdisciplinary team whose project modeling the eradication of Ebola, based on a hypothetical cure, landed them a spot among 10 "outstanding winners" at the 2015 Mathematical Contest in Modeling. The competition, hosted by the Consortium for Mathematics and Its Applications, drew more than 7,600 applicants from 17 countries.

TAKING PHYSICS FOR A SPIN

Math and physics whiz **SEAN BEARDEN,** a recent UB graduate and Goldwater Scholarship recipient, is propelling his love of quantum mechanics into a brilliant future. Armed with a prestigious, three-year National Science Foundation (NSF) Graduate Research Fellowship, Bearden headed to the University of California-San Diego this summer to study spin lasers—futuristic gadgets that could pave the way to faster data transfer in computers.

CHINESE INTERPRETER

Economics major and globe-trotter **CASEY ROTHBERG** is the second UB student ever to win the David L. Boren Scholarship, a highly competitive, international research fellowship for undergraduates studying overseas. Rothberg traveled this fall to Capital Normal University in Beijing, China, to study Mandarin, which she plans to use to help facilitate U.S.-Chinese relations.

COMING TOGETHER TO CHANGE THE WORLD

UB unites research, education and engagement through the Communities of Excellence

"FIND SOLUTIONS to the most pressing challenges of our world."

That is the goal, as stated by UB President Satish K. Tripathi, of three new Communities of Excellence—an initiative that will harness the strengths of hundreds of faculty from across the university. Through the Communities, multidisciplinary teams will work together to push the boundaries of human knowledge, create new educational opportunities and develop innovative ways to address the most critical problems facing humanity.

The three Communities, chosen over a yearlong process from nearly 100 initial proposals submitted by faculty, are:

- THE GENOME, THE ENVIRONMENT AND THE MICROBIOME (GEM): advancing development of personalized medicine and empowering individuals to have greater control over and understanding of their health, the human genome and the human microbiome
- GLOBAL HEALTH EQUITY: focusing on the social, economic, political and environmental conditions that lead to inequities, and tackling problems ranging from a lack of access to sanitation to high rates of disease
- SUSTAINABLE MANUFACTURING AND ADVANCED ROBOTIC TECHNOLOGIES (SMART): developing the next generation of manufacturing technologies, processes and education that enable sustainable, cost-effective production of high-quality, customizable products

UB is investing $25 million over the next five years in these three Communities and RENEW (Research and Education in eNergy, Environment and Water), which was launched last year and was the university's model for the Communities. The initiative emerged from the UB 2020 plan to advance our academic and research strengths in key areas.

448. UB and Roswell Park receive $1.85M grant to launch stem cell research program

449. UB anthropology student receives prestigious Fulbright to UK

450. Smoking and drug abuse could more than triple annual ER visits

451. UB's Warm Weather Wednesdays are back with more seasonal fun

452. UBThisSummer is back with something for everyone

453. With one false tweet, computer-based Hack Crash led to real panic

454. In consumers we trust: Customer reviews boost online shopping

455. This Slinky lookalike 'hyperlens' helps us see tiny objects

456. Musicians and audience members share the stage for unique program of music and history

457. Aging well: UB pharmacologist's book discusses the science of aging for the rest of us

458. UB's Canty named SUNY Distinguished Professor

459. Pre-Seed Workshop will assess the viability of new startup concepts

460. Research unravels a link between a genetic mutation and autistic behaviors—and a way to undo it

461. UB grad shares Pulitzer Prize for coverage of Washington landslide

462. Three to be honored by Rochester Chapter of UB Alumni Association

463. Study explores how past Native American settlement modified WNY forests

464. Engineers turn E. coli into tiny factories for producing new forms of popular antibiotic

465. New sensing technology could improve our ability to detect diseases, fraudulent art, chemical weapons and more

JUNE 2015

466. UB School of Management certifies inaugural Health Care Management class

467. Six first-year MBAs win Verney case competition

468. UB graduating senior dedicated to worldwide gender equality wins Fulbright Scholarship to Jordan

469. Bulls post seventh straight 3.0 semester

470. NSA expands Internet spying that poses 'serious threat to American civil liberties,' UB expert says

471. UB Articulation Boot Camp addresses common speech difficulties

472. UB's Rowe receives New York State Public Health Association award

473. Free health screenings and family fun at first Health Mall Community Day

474. Data breach that exposed millions is just 'tip of the iceberg,' UB expert says

475. Study supports early intervention for prostate cancer patients who experience significant emotional distress

476. UB neurology chair receives Doctor of the Year award from Myasthenia Gravis Foundation

MOVING PICTURES

Engineering alumnus Marcus Yam adds a Pulitzer to his collection of awards

AN AMERICAN FLAG popping up through the remnants of a flattened home.

A rescue worker's mud-stained hands clutching a Bible.

A head bowed in prayer.

These are a few of the gripping images captured by Marcus Yam—the only photographer on duty for The Seattle Times when reports of a deadly mudslide sent him rushing to the scene. He ended up spending days at the site, documenting the Oso landslide's devastating effects in photos that would be shared around the globe.

The Times' coverage of the tragedy—including Yam's photos—earned a Pulitzer Prize, widely considered the highest honor in the country for journalism.

"It has been a very humbling experience. You don't expect to win anything like that in your lifetime," said Yam, who discovered his interest in photojournalism while taking photos for UB's student newspaper, The Spectrum.

He earned his degree in aerospace engineering from UB in 2006, and while his engineering background might seem unrelated, it actually informs his work on a daily basis. "I take a very analytical and technical approach to everything that I shoot," said the photojournalist, who now works at the Los Angeles Times. Yam has also contributed regularly to The New York Times, and has earned numerous accolades, including a 2011 Emmy for "A Year at War," a NY Times interactive feature documenting a year in the life of a U.S. battalion in Afghanistan.

MORE ACCOMPLISHED ALUMNI

OUR ACCOMPLISHED ALUMNI

Among the 240,000 Bulls in 146 countries around the world, our graduates have gone on to do great things, like becoming Hollywood's top talent manager (Shep Gordon, BA '68), founding China's leading search engine (Robin Li, MS '94) or serving as chief education/medical officer for NASA's Astronaut Office (Ellen Shulman Baker, BA '74). Below are others in our talented alumni network who have accomplished great things in the past year.

NICOLE C. LEE (JD '02)

Recipient of the UB Law School's 2015 Distinguished Alumni Award for Public Service, Lee has spent much of her career working in human rights law around the world as president of TransAfrica Forum Inc. She stepped down in 2014 to start her own consulting firm, The Lee Bayard Group, through which she now focuses on human rights violations in the U.S.

ADAM WEINBERG (MFA '82)

As Alice Pratt Brown Director of the Whitney Museum of American Art in New York City since 2003, Weinberg led the Museum's capital campaign for a new 220,000-square-foot building in the Meatpacking District, which opened to critical and public acclaim on May 1, 2015. During his tenure, he has also overseen the organization of numerous exhibitions, award-winning educational programs and dramatic growth in the collection.

AJLA GLAVASEVIC (BS '11)

A native of Bosnia, Glavasevic majored in business administration at UB and competed in the Division I heptathlon. After graduating, she earned a law degree and a spot on the Women's Bobsled National Team. She is currently working at a law firm by day and training by night for the upcoming season. Glavasevic also plays violin, and performed at Carnegie Hall in high school.

REAR ADM. REBECCA MCCORMICK-BOYLE (BS '81)

Capping a distinguished military career that has taken her around the world and back, nursing major McCormick-Boyle has been the U.S. Navy's top nurse since 2013. In 2014 she became deputy chief, U.S. Navy Bureau of Medicine, Education and Training, and commander of Navy Medicine Education and Training Command. The UB Alumni Association recognized her achievements with a 2015 Distinguished Alumni Award.

ALEJANDRO RIVERA BECERRA (PHD '01, ME '98, MS '93)

With four graduate degrees—including three from UB in industrial and environmental engineering—and a determination to use his education to help his home country, Rivera Becerra joined the Mexican foreign service in 2000. For the past two years, he has served as Mexico's chief negotiator in the Durban Platform of the United Nations Framework Convention on Climate Change. He received UB's International Distinguished Alumni Award in 2015.

DAVID F. MITCHELL (BS '84)

Mitchell, who studied mechanical engineering at UB, tested rockets for the Navy and worked on several launch vehicle and spacecraft programs at NASA's Goddard Space Flight Center before serving as the lead project manager for the MAVEN mission—the first devoted to understanding Mars' upper atmosphere. The spacecraft entered orbit around the Red Planet last fall. Mitchell is now the director of flight projects at Goddard.

THOMAS CURLEY (BA '00)

After earning a film studies degree at UB, Curley moved to Los Angeles, where he has spent the past 14 years working as a production sound mixer on more than 150 films and television shows. He got a chance to be in front of the cameras this year, nabbing a BAFTA Award and then an Academy Award for his sound-mixing work on "Whiplash." He was also recently inducted into the Academy of Motion Picture Arts and Sciences.

SARA CZAJA (PHD '80, MS '77)

Czaja, recipient of two graduate degrees in industrial engineering from UB, is co-director of the Center on Aging at the University of Miami and director of the NIH-funded Center on Research and Education for Aging and Technology Enhancement (CREATE). A renowned expert on quality-of-life issues for the elderly, she was invited to join a panel of leading scientists at this year's Nobel Prize ceremonies in Stockholm to discuss global challenges facing an aging society.

NOTE. WORTHY.

June in Buffalo marks its 40th anniversary at the creative edge of contemporary music

EVERY JUNE for 35 of the past 40 years, some of the world's most visionary musicians and composers have gathered here for a week to explore the boundaries of new music. "It would be hard to name more than a handful of major composers of the past 30 years who have not appeared on its faculty roster," stated The Wall Street Journal in a June 8 article about UB's June in Buffalo festival—an event so influential it has spawned dozens of imitators around the country.

Presented as a leading component within UB's Robert and Carol Morris Center for 21st Century Music, June in Buffalo features master classes, lectures and workshops during the day, with concerts and recitals open to the public in the afternoons and evenings. Throughout the weeklong event, dozens of new and adventurous works are performed—some by the typically outstanding lineup of faculty composers (including, this past year, four Pulitzer Prize winners), and some by emerging composers in attendance. June in Buffalo prides itself on providing these young and upcoming artists with the rare opportunity to hear their works performed by established ensembles, and to get feedback from some of the field's leading artists.

This year also marked the 30th anniversary of SUNY Distinguished Professor David Felder's tenure as artistic director of the festival. Felder restarted the event in 1986 after several years of dormancy; it was originally founded in 1975 by the revered American composer and UB faculty member Morton Feldman.

> "We've probably done performances of around 700 or more young composers' pieces. I think those performances, and the help we've given to people over the years, have been really important to the profession."
>
> **—DAVID FELDER**

509. NIH awards $12 million to UB for quality assurance program in clinical pharmacology for HIV/AIDS and related infectious diseases

510. Obamacare survives 'final serious' challenge, UB health policy expert says

511. Engineer receives $24,000 NSF grant for Nepal earthquake research

512. BikeShare at UB offers green option for campus travel

513. Clash between same-sex couples' right to marry and religious freedom is up next, UB law professor says

514. Supreme Court's health care decision a 'chance to live healthy lives' for all Americans, UB legal expert says

515. The Buffalo Student Sandbox gives rise to student-led startups

516. Life for inmates could become much harder after recent prison break, UB expert says

TO BE CONTINUED IN 2015-16...

www.buffalo.edu/list

OUR IMPACT IN NUMBERS

Data is more than numbers. Facts and figures tell a story too—in this case, of UB's depth and breadth in terms of people, scholarship and the constellation of degree programs we offer students from all parts of the world. As we look to our future, we see increased academic and economic opportunity, along with the commitment of our faculty, staff, students and alumni to finding solutions for society's most critical issues.

A WEALTH OF ACADEMIC OPPORTUNITIES

As the largest public research university in New York State, UB offers the most comprehensive array of academic programs—more than 100 undergraduate and combined degree programs, and more than 300 graduate and professional degree programs and certificates—giving students the broadest opportunity for scholarly exploration and success in life.

AFFORDABILITY AND IMPACT

The Business Journals ranked UB among the nation's TOP 50 public universities for exceptional education, strong graduation rates and affordable tuition. The average debt load for UB students at graduation is $21,228, compared to the average national student loan debt of $28,400. UB students' debt load on federal loans is $19,896, or $10,000 less than the national average.

A TIMELY PATH TO COMPLETION

Our dedication to providing the resources our students need to finish their degrees on time has resulted in UB far exceeding the national average for graduation rates. Among public universities, our four-year graduation rate is **53 PERCENT,** compared to a national average of 33 percent; our six-year graduation rate is **72 PERCENT,** compared to a national average of 57 percent.

AN ECONOMIC POWERHOUSE

UB and its affiliated entities generated approximately **$1.6 BILLION** in revenues from all sources last year, making the university one of the leading economic engines in the state and region.

MORE OPPORTUNITY FOR MWBES

UB is the leader among its SUNY peers for the largest spending percentage with businesses certified in New York State as Minority and Women-Owned Business Enterprises (MWBEs), having spent more than **$17 MILLION** in fiscal year 2014-15.

AN UNMITIGATED ENTHUSIASM FOR A UB EDUCATION

UB experienced a record high enrollment of nearly **30,000** students in fall 2014 and awarded **8,742** degrees in 2014-15, representing a **12 PERCENT** increase in the number of diplomas granted over the previous year.

A GLOBAL PERSPECTIVE

Since our founding in 1846, when two Canadians were among the first class of 18 students, a global outlook has formed the core of our heritage and strength as an institution. Today, we have **83** exchange agreements with universities abroad, and are ranked among the nation's **TOP 20** universities for the enrollment of international students. This rich diversity of people and ideas ensures that our students, faculty, staff and community play an active and impactful role in a world without borders.

ALUMNI AROUND THE WORLD

More than **240,000** UB alumni live in every state and **146** countries.

AT A GLANCE

NAME
- University at Buffalo The State University of New York

LOCATION
- Three campuses: North, South and Downtown

AFFILIATION
- A flagship institution in the State University of New York system, UB is the largest and most comprehensive campus in the 64-campus SUNY system. It is a member of the Association of American Universities.

FOUNDED
- 1846

RESEARCH
- $386.6 million

STUDENT BODY (HEAD COUNT)
- 29,944 (2014-15 academic year)
- 19,829 undergraduate
- 10,115 graduate and professional

STUDENT BODY (GEOGRAPHIC REPRESENTATION)
- Western New York: 36 percent (2014-15 academic year)
- Other New York: 38 percent
- Out of state: 3 percent
- International (at WNY campuses): 17 percent
- External (offshore): 6 percent

DEGREES AWARDED
- 8,742 (2014-15 academic year)

DEGREE PROGRAMS
- More than 100 undergraduate degrees, including combined degrees
- More than 300 graduate and professional degree programs

EMPLOYMENT
- 6,788 full-time equivalent employees (FY 2014)

FACULTY
- 2,844 total faculty
- Ratio of undergraduate students to undergraduate instructional faculty: 13 to 1

ALUMNI
- More than 240,000 in 146 countries
- More than 128,000 in New York State

ANNUAL BUDGET
- Operating revenues: $664 million (FY 2014)
- Financial statement revenues: $1.204 billion (FY 2014)

ENDOWMENT
- $624.8 million (2013-14)

ATHLETICS
- Division I, Mid-American Conference

MASCOT
- Victor E. Bull

THE WAYS WE SUPPORT

Donors to UB offered support in various ways for varied purposes in 2014-15. Their collective generosity encompassed a whirlwind online campaign, private foundation support, faculty philanthropy and more. With each gift, our contributors demonstrated their commitment to excellence in teaching and research, and their understanding that the best public universities have the strongest private support.

BRINGING PROSPERITY HOME

The Prentice Family Foundation awarded fellowships to a record class of 34 UB students this year. The Western New York Prosperity Fellowship supports students who are committed to improving the region once they graduate through job creation and economic development. It represents the largest annual gift given to the university, amassing more than $500,000 per year, and advancing a range of career aspirations to further the area's economic growth.

Pictured: Fellowship winners Philip Schneider (electrical engineering), Juweria Dahir (sociology) and Matthew Rivera (musical theatre and business administration)



A RECORD AWARD FOR NURSING

The New York City-based Helene Fuld Health Trust Scholarship Fund has committed to a three-year grant of $600,000, the largest private grant ever awarded to the School of Nursing. Established by Dr. Leonhard Felix Fuld and his sister, Florentine, in their mother's memory, the Fuld Trust Scholarship Fund assists students in the Accelerated Second Degree Baccalaureate Program in Nursing, as they prepare for careers in an increasingly complex health care field.

CLASS ACTION

Eight classes of alumni have stepped forward to support a campaign to sponsor signature learning stations in the auditorium of the new downtown School of Medicine and Biomedical Sciences building. Each class has met the $25,000 threshold for this giving opportunity, helping to launch a new era of medical education, clinical care and research in Buffalo.

A BIG BOOST FOR PHYSICS

John Ho, SUNY Distinguished Service Professor of Physics, and his wife, Martha Leung, wanted to celebrate their long association with UB, as well as enhance future development of the graduate program in physics. The couple expressed their enduring appreciation with an endowed fund supporting graduate students in the department.

BEAT-THE-CLOCK FUNDRAISING

In just 25 hours, the first Day of Giving smashed its goal of $25,000, raising $80,805 from 454 donors. The fast-paced appeal on June 2-3 was spurred by a $25,000 challenge commitment from the UB Alumni Association board of directors. It drew gifts of all sizes in a campaign that emphasized participation over dollar amount, although one donor gave $10,000. More typical was the alumna who hadn't given in several years and put a $300 gift on her credit card.

SPURRING GLOBAL HEALTH AND TRAVEL

Roberta (MLS '74, BA '70) and George Stevens are passionate about addressing global health issues. They also want to share their love of travel. Half of the couple's $2 million bequest commitment is earmarked for vision research, especially on macular degeneration, which affects 20 million people worldwide and is prevalent in Roberta's family. The remainder will support study abroad for students in the College of Arts and Sciences.

SOLAR ENDURANCE TEST

The School of Architecture and Planning benefitted from a spirited student-driven crowdfunding campaign to support its entry in the U.S. Department of Energy's biennial Solar Decathlon competition. Monies raised supported student competitors and went toward the GRoW Home, a 1,100-square-foot solar-powered structure that is vying with entries from 15 other schools in an elite, international competition to create energy-efficient homes of the future.

OUR RESEARCH AND SCHOLARSHIP

As a premier, research-intensive public university with $386.6 million in annual research expenditures,* UB is committed to supporting the work of our faculty and students, whether they're scientists, social workers, lawyers or linguists. As the academic health center continued to take shape in downtown Buffalo, we took our research power to the next level by investing $25 million over five years in the Communities of Excellence—a grand vision to amplify UB's ongoing efforts to solve the challenges facing society, while simultaneously creating new multidisciplinary learning opportunities for students. Here are some additional highlights from the year's successes in research and scholarship.

WIPING OUT INFECTIOUS DISEASE

Building on its extensive experience with global HIV research, the UB School of Pharmacy and Pharmaceutical Sciences received a $12 million grant from the National Institutes of Health (NIH) to help ensure the quality of NIH-funded clinical research on the world's most widespread and stubborn infectious diseases. The seven-year contract renewal will continue the school's work to provide vital quality assurance for international clinical studies, including antiretroviral strategies, the prevention and eradication of HIV, and developing urgently needed treatments for viral hepatitis, tuberculosis and related diseases.

POWERING THE U.S. RESEARCH COMMUNITY

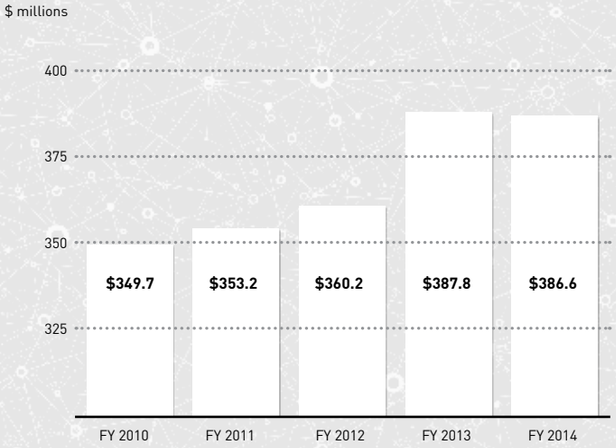
Used worldwide by academia, industry and government, a supercomputing management tool developed in 2010 for the National Science Foundation (NSF) by UB's Center for Computational Research (CCR) has helped maximize the country's research supercomputing efficiency over the last decade. Based on that success, this year the NSF awarded the CCR a $9 million, five-year federal grant extension to improve the tool, which was originally designed to monitor the performance of the NSF's supercomputers and their software programs, and which has since been expanded into an open-source version for global distribution.

TRANSLATING OTHER CULTURES

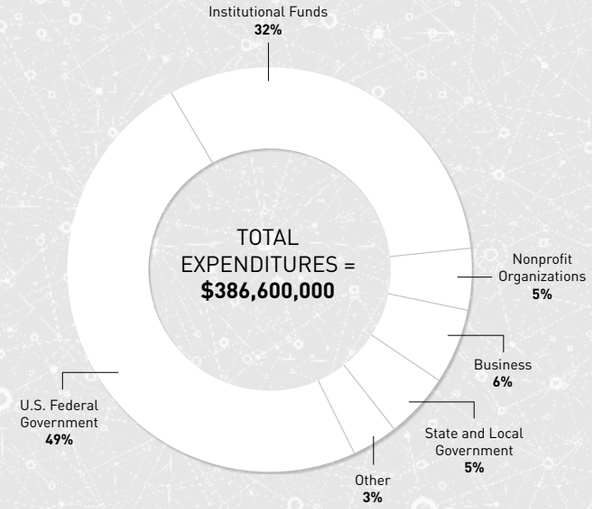
An award-winning poet and scholar of the history and rhetoric of science, Douglas Basford received one of 20 coveted National Endowment for the Arts (NEA) Literature Translation Fellowships to support his translation of sonnets by the 15th-century Italian poet Domenico di Giovanni. The NEA calls its support of projects like Basford's "one of the most important ways we can broaden our nation's perspectives while also making the work of these talented writers and translators more available."

**Reported to the NSF, 2013-14*

TOTAL RESEARCH EXPENDITURES



RESEARCH EXPENDITURES BY SOURCE OF FUNDING



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Produced by the Division of University Communications,
University at Buffalo. October 2015. 15-UC-008