

IMPACT

WINTER 2018



AMERICAN ASSOCIATES
Ben-Gurion University
of the Negev

From the desert for the world...

THE NEXT CHAPTER IN DESERT RESEARCH

PUZZLING OUT
THE CAUSES OF AUTISM

WHAT MOTIVATES OUR
DECISIONS?

BOOKS BEYOND BARS:
PRISONER EDUCATION



Celebrating BGU's 50th Anniversary

LIGHTING UP THE DESERT WITH NEW TALENT

BY **TONI YOUNG** AABGU PRESIDENT



“We want the stars,” Prof. Boris Zaltzman says of his plan to recruit the best young scientists in the world to the Jacob Blaustein Institutes for Desert Research, which he directs. And in the past few years more than a dozen top researchers have joined the faculty, with more on the horizon. They are taking the place of pioneers who founded the institutes and are now retiring.

Meet three of these talented young people in the story about the Blaustein Institutes, where breakthroughs continue to be made in water science and technology, desert agriculture, and solar energy. And in another of this issue’s articles, meet researchers who are poised to help change the landscape of autism—how it is diagnosed, understood and treated. Discover more new-to-BGU researchers in a fascinating article about behavioral economics.

With their outstanding credentials, these young people could choose where they want to live and work. Why choose Israel’s youngest university, in a desert environment unfamiliar to many?

Those interviewed for these stories refer to BGU’s stellar reputation in their field of choice. They talk about the supportive atmosphere, the collegiality and the encouragement they enjoy. And they speak enthusiastically about the extraordinary collaborations BGU fosters.

Today, research of every variety needs interdisciplinary thinking. While many prestigious universities and research institutes around the globe continue to battle a “silo” outlook—a reluctance to share progress with colleagues or the larger field—the interaction that flourishes at BGU is solidly built into academic departments.

These rising stars appreciate the practical orientation that fuels research at BGU—the drive to improve people’s lives as well as advance science and education. And not least, they talk of their shared sense of mission: to help create the Negev and Israel’s own bright futures. All of us at AABGU are proud to be part of this evolving story.

IN THIS ISSUE

News Briefs

Introducing AABGU’s New CEO	3
47th Oasis of Innovation	4
Ben-Gurion Global Health Scholarship Announced	6

Donor Profiles

Anat and Avi Bar-Cohen	7
Gerry Shreiber	8

Education and Research

The Next Chapter in Desert Research	9
Puzzling Out the Causes of Autism	14
Behavioral Economics: What Motivates Our Decisions?	17
Dr. Eyal Sheiner: Running on Fast Forward	20

Helping the Community

Books Beyond Bars: Prisoner Education	22
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Student Profile

Rachel Gur-Arie: An American in Beer-Sheva	25
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Regional News	26
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ON THE COVER: Cultivated fields and vineyards in the foreground of Arad, Israel’s first development city located about 28 miles east of Beer-Sheva. Photo: Dani Machlis

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Introducing DOUG SESERMAN AABGU'S NEW CEO

DOUG SESERMAN, formerly the president and chief executive officer of JEWISHcolorado, the Jewish Federation in Denver, began his tenure as AABGU's chief executive officer in October.

"I'm honored to have assumed the role of AABGU's professional leader. I'm also humbled by the responsibility to sustain David Ben-Gurion's dream to develop the Negev. I took this job because I believe that Ben-Gurion University is one of the most vitally important institutions in Israel today," says Doug.

"I am passionate about Israel and the Negev. I am inspired by the University's commitment to educating the next generation of leaders and empowering the local community.

"It's Israel beyond the conflict—breakthrough research in agriculture and water and cyber security and medical innovation. It's the Jewish brain at its best."

Doug is known for his creative business vision. Earlier this year he received national recognition from the American Business Awards, winning the 2017 Gold Stevie Nonprofit Executive of the Year award. In 2014, he was named to the *Forward 50* as one of the 50 most impactful American Jews for his success and accomplishments reimagining federation for the 21st century. He orchestrated the merger of the

Allied Jewish Federation and Jewish Community Foundation of Colorado, and launched the JEWISHcolorado brand to broaden the appeal and relevance for the next generation of donors.

AABGU President Toni Young says, "Doug is a creative, passionate Jewish community leader, an award-winning private sector marketing executive, an out-of-the-box thinker, an avid Zionist, and a *mensch*."

Doug achieved record fundraising at the Colorado Federation. During his 15-year tenure, he raised more than \$200 million and almost tripled the organization's endowment and planned giving assets. In 2016, he helped pave the way for Colorado as the fourth state to sign an anti-BDS law that prohibits Colorado's largest state pension fund from investing in companies that boycott, divest or sanction (BDS) Israel.

Doug's strengths in leadership, marketing and branding are the culmination of an exemplary career in telecommunications and consumer products marketing.

As senior vice president of marketing and sales at AT&T Broadband, Doug

oversaw marketing for AT&T's \$10 billion portfolio of cable television, high-speed internet access and cable telephone product offerings. Prior to that, he launched the country's first digital cable television product, TCI Digital Cable, before the company was acquired by AT&T.

From 1986 to 1996, Doug served in executive positions at The Quaker

Oats Company in Europe and in the United States.

Doug received an M.B.A. from Northwestern University (NU) in 1986 and a B.S. in communication studies in 1985 from NU. He and his wife, Sue, are the parents

of twin young adult daughters. An outdoor sports enthusiast, Doug particularly enjoys skiing and cycling.

"For me to be able to participate nationally in developing one of the principal institutions impacting the future of Israel—especially in the South—is really amazing." ■

View a video greeting from the new CEO at www.aabgu.org/meetdoug

"I took this job because I believe that Ben-Gurion University is one of the most vitally important institutions in Israel today."

— DOUG SESERMAN

2017 Oasis of Innovation

47TH BOARD OF GOVERNORS MEETING

MORE THAN 60 AMERICANS attended the annual open house at Ben-Gurion University of the Negev this past May. It was an emotional and triumphant three days, as members of the AABGU community celebrated BGU's inspiring students, honored magnanimous supporters and memorialized beloved faculty and leaders.

Ellen Marcus, a BGU and AABGU board vice president was recognized for her steadfast devotion to BGU over many years with an honorary doctorate.

We inaugurated the Carole and Marcus Weinstein Software and Information Systems Engineering and Cyber Security Building and the Carole Weinstein Chair in Information Systems Engineering; we bestowed upon the Weinsteins honorary doctorates and welcomed them as new members of the BGU board of governors.

Thanks to AABGU donors, we dedicated two chairs: the Aron Bernstein Chair in Jewish History and the Michael Feige Career Development Chair in Israeli Society in memory of a BGU faculty member who was murdered by terrorists last year. And, a special prize, the Robert St. John Chair in Objective Middle East Reporting, was awarded to *Bloomberg* news reporter Jonathan Ferziger.

We announced our results to date of the worldwide \$500 million 2020 Vision Campaign, a campaign that will help BGU double the size of its campus in Beer-Sheva to prepare for the influx of expected students.

Learn more: <http://vision.aabgu.org>



Top: Marcus and Carole Weinstein cut the ribbon at the dedication of the Carole and Marcus Weinstein Software and Information Systems Engineering and Cyber Security Building. With them from left to right: Prof. Bracha Shapira, Carole Weinstein Chair in Informations Systems Engineering; Prof. Yosef Kost, then-dean of the Faculty of Engineering Sciences; Prof. Rivka Carmi, BGU president; Prof. Dan Bloomberg, vice president and dean for research and development

Bottom: The Weinsteins receive their honorary doctorates from Prof. Rivka Carmi and Prof. Zvi HaCohen, rector



Left: Arthur Hessel, AABGU national board member, presides over the dedication of the Michael Feige Career Development Chair in Israeli Society made possible by AABGU supporters in memory of a BGU faculty member who was murdered in June 2016 by terrorists at the Sarona Market in Tel Aviv.

Right: AABGU President Toni Young helps Martin Katz of Menlo Park, California celebrate his 90th birthday.



Top: BGU students entertain for guests and supporters.

Left: Drs. Morton and Toby Mower enjoy a welcome dinner reception for participants.



Left: Ellen S. Marcus, vice president on the boards of BGU and AABGU, receives an honorary doctorate for her magnanimous support of the University.

Right: Joshua Arnow, BGU and AABGU board member, celebrates his parents' (Robert and Joan z"l Arnow) recognition as President's Pillars.

Below: Alexander M. Goren, chair of BGU's board of governors, enjoys the festive activities with students and guests at the annual Student Evening.



Save the Date

2018 OASIS of INNOVATION

BGU'S 48TH BOARD OF GOVERNORS

MAY 6 TO MAY 10

For more information, call 646-452-3685
 e-mail oasis@aabgu.org
 or visit aabgu.org/oasis2018



ANNOUNCING THE BEN-GURION GLOBAL HEALTH SCHOLARSHIP FOR PROMISING MEDICAL STUDENTS

ENTERING ITS 20TH YEAR, Ben-Gurion University of the Negev's Medical School for International Health (MSIH), taught in English, is producing the medical leaders of the next generation. With three years of study and training in Israel, fourth-year electives in North America and an eight-week global

MSIH is a unique medical school that incorporates global health components into all four years of the core M.D. curriculum. It was one of the first programs in the world to provide medical training for physicians to work with underserved populations in developing countries, rural areas, inner

cities, and Israel's Negev area, which has large numbers of Bedouins and immigrants.

"The need for medical training that addresses underserved populations has never been more important," says Marvin Israelow, chair of AABGU's MSIH Advisory Committee. "The selection committee looks forward to finding a highly deserving individual who will fulfill the mission of our pioneering program." Applicants will be evaluated by a committee of world leaders in global health and medicine.

MSIH students graduate with a better understanding of what it means to be a successful physician—armed with greater insight of their patients, as well as their patients' families, communities and cultures. This excellence in education and training is recognized by institutions across the United States as demonstrated by a U.S. residency match rate of more than 90 percent, on par with top American medical schools.

Highly qualified applicants with an excellent academic track record and a demonstrated interest in global health will be considered for the Ben-Gurion Scholarship. Prospective students may submit a completed admissions application by January 8, 2018. The award recipient will be notified by February 16. ■



Fourth-year MISH students during their clerkship in a pediatric ward in the Philippines

health clerkship at one of many sites in underserved communities throughout the world, students are prepared for a changing world. Now, to commemorate its 20th anniversary, MSIH announces the new Ben-Gurion Global Health Scholarship.

The prestigious scholarship will be given to one outstanding medical student from anywhere in the world each year. It will cover full tuition for the four years of the M.D. program, provided the student maintains satisfactory academic performance.

Top Right: An MSIH student performs life or death procedures on a "smart" mannequin during an emergency medicine course.

A BLOG POST BY CHELSEA POWELL

MSIH Third-Year Student

On a clinical rotation in the pediatric ward of Soroka hospital, the class met with a Bedouin father whose young daughter was hospitalized after pouring a pot of boiling water on herself. He had never been to the hospital before and was initially concerned that his identity as a Bedouin might compromise the quality of care his daughter would receive. Instead, he was amazed at how little that mattered. He noted that his daughter's healthcare team had one goal, and that was to help her.

Israel is a place of profound passions, vastly different cultures and political conflict; confronting all of it prompts daily considerations. Soroka is a sanctuary from all of that, a place where coexistence thrives. Hearing this Bedouin father speak about Soroka in such a positive way reinforced my belief in the power of medicine to transcend conflict.

Chelsea grew up in Frederick, Maryland and is a graduate of Cornell University.

To learn more about MSIH and the Ben-Gurion Global Health Scholarship, visit <http://mish.bgu.ac.il> or contact its admissions office in New York City at 212-995-1231 or msihadmissions@post.bgu.ac.il

THE BAR-COHEN family's connection to Israel—particularly the Negev—runs deep. On Avram “Avi” Bar-Cohen's side, the line goes back perhaps eight generations. Over the years, members of the family found themselves on both sides of the ocean, but in 1949—shortly after the creation of the state of Israel—three-year old Avi and his family were on a ship from New York to help build the new nation.

Avi spent eight years in Israel before returning to the United States with his family. He first encountered Anat, his future wife, in a Labor Zionist youth movement summer camp in New York in the early sixties. “We met around the whole idea of Israel, Zionism, socialism—all those shared values,” recounts Anat, whose own parents were Auschwitz survivors.

Avi and Anat were both studying in Boston when the Six-Day War broke out in 1967. Together with others in the Zionist movement, they coordinated some 300 volunteers who wanted to be in Israel during the crisis. To get to Israel, they themselves had to bypass the U.S. embargo by traveling through Europe and entering Israel via Greece.

Three months of volunteering on Kibbutz Urim in the South turned the experience into a determination. “We fell in love with the Negev,” Anat sums up.

Inspired by David Ben-Gurion's passion, Avi was already a believer. “Growing up, it was always clear that Israel would succeed if we figured out how to develop the Negev and discover its potential,” he says. “The idea of addressing the problems of an arid land with science, technology and ingenuity, and being part of that dream was always part of our own story.” That mission motivated Avi's undergraduate and graduate studies at MIT.

Opportunity soon beckoned in the form of a brand-new university with the same mission. In 1972, shortly after completing his Ph.D., Avi became one of the first lecturers in Ben-Gurion University's Department of Mechanical Engineering. He helped shape its direction while pursuing his research interests in solar energy, desalination and other areas critical to arid zone development.

Anat worked in public health, aiming to improve reproductive health, childbirth and maternity services for women in Beer-Sheva and development towns in the Negev, and educating medical students about these needs.



ANAT AND AVI BAR-COHEN
BETHESDA, MARYLAND

DEVELOPING THE NEGEV: A FAMILY TRADITION

Two of their three children were born in Beer-Sheva.

The family returned to the U.S. in 1984, where Avi has held positions at the University of Minnesota, the University of Maryland and DARPA (the Defense Advanced Research Projects Agency of the U.S. Department of Defense). He is currently working on advanced energy issues at Raytheon Corporation.

Anat continues her public health work in women's cancer education and trains advocates in evidence-based health care. Their three adult children, Barak, Talia and Raanan, maintain their commitment to Israel in myriad ways. They ensure that their own children speak Hebrew, spend substantial time in Israel as a family, secure friendships, and pursue professional interests.

Avi affirms his belief that “Israel will rise and fall based on how well it deals with the Negev and its development. So we devote our time and energy, and we get together as a family for this cause.”

Spurred by the enthusiasm of the Bar-Cohen children, the family recently decided upon a new way to act on their convictions. In partnership with BGU, the Bar-Cohen family is contributing to the Negev's transformation as a technology powerhouse by creating the Anat and Avram Bar-Cohen Project Desert Nova Fund to support breakthrough research.

Project Desert Nova will identify initiatives by BGU faculty and students that promise technological breakthroughs: ideas that may contribute to solving critical societal problems in the long term. Each year, Desert Nova will select and fund one or more projects.

Looking back on BGU's development, Avi sums it up as “amazing. It doesn't happen overnight. We knew it would take 20 or 30 years. I think almost everything we hoped it could be as a university has happened—visionary programs in medicine, as well as engineering and science, that attract students from the region and all over the country to embrace the dream of transforming the Negev.”

The three Bar-Cohen children and their spouses feel strongly that creating the fund as a family endeavor adds a special dimension. They agree the project is a great focal point that has brought them together in their love of Israel, the Negev, technology, and innovation.

Plans are currently underway to host an event honoring the Anat and Avram Bar-Cohen Project Desert Nova Fund at BGU in the spring of 2018. ■

GERRY B. SHREIBER well remembers the pivotal points in his life that created lifelong commitments.

He began his career at 18 as a machine shop trainee in the semiconductor industry, and to his good fortune was mentored by one of the company owners, Albert “Bud” Soffa. “He gave me the support and self-confidence to follow my dreams,” Shreiber says.

A few promotions later, he started his own business—manufacturing machine parts. He sold it, then bought a bankrupt soft pretzel company with eight employees: J&J Snack Foods Corp. Today, J&J is a billion-dollar company with 4,000 employees, producing a wide range of popular snack foods and beverages, and still growing.

“We make a lot of soft pretzels,” Shreiber acknowledges, “more than 2 million per day.”

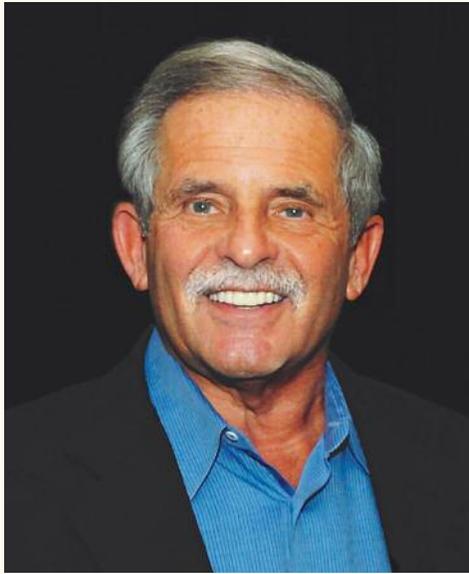
Another turning point created a strong connection to Israel. “Everybody has a mesmerizing moment of truth,” he says, “and for me it was 1967—the Six-Day War. Suddenly this little nation surrounded by enemies took the offensive and won—and that’s when every Jew in the world suddenly had wider shoulders and a higher height.”

Having young children strengthened the emotional link. “I felt an automatic radiant bond connecting me to Israel. It has only grown over the years and I’m proud to say I support Israel in word, thought and deed.”

His support began to take tangible form when he took his company public in 1986. “Bud Soffa sent me a note saying, ‘Congratulations, we haven’t talked about your future in a long time and I want to come over and talk about it now.’ So he came and described BGU—he was involved in creating the Mid-Atlantic Region of AABGU then. I felt a strong commitment to Bud. So I started attending meetings.”

Shreiber supported the new region with “some time and money,” and soon the community wanted to honor him. “I felt embarrassed because I’d never been to Israel!” So he made the trip with his wife, mother and a friend. It included a visit to Israel’s Habsor Farm, a clinical veterinarian initiative. It further reinforced his engagement.

“When you go there and touch the ground and feel the people, something permeates you, from head to toe. The commitment was shattering. So I got further involved.”



GERRY SHREIBER
MULLICA HILL, NEW JERSEY

HONORING STRONG COMMITMENTS

In addition to financing endowed scholarships at BGU in honor of his parents, as well as Bud and Harriet Soffa, Shreiber has actively supported the American Associates Village at Sede Boqer, fellowships for Israel studies, and the Drylands, Desert and Desertification Conference. “I focused on drylands research because it was needed, and over a few years, I could see how BGU’s skills and its core studies were making life better there for all sorts of professionals. I continue to give because I see that it’s well used.”

Gerry Shreiber has been widely honored for both his business accomplishments and philanthropy.

J&J earned a place on the *Forbes* list of “200 Best Small Companies” seven times, and he won the Ernst & Young Entrepreneur of the Year award twice. He has served a host of community and Jewish charities as a

board member and fundraiser, and sponsors numerous philanthropic and education causes.

Especially close to his heart: animal welfare and animal rights. Through his own foundation, S.A.F.E.—Shreiber Animal Foundation Enterprises—he supports a number of organizations and initiatives.

In BGU Shreiber senses a commitment that resonates with him. “There’s an urgency about the whole university. When you see the teachers and young people rallying to the cause, there’s nothing like it! This university formed in the desert under David Ben-Gurion’s name has now taught thousands of people in an area that had once been nearly empty and barren.”

Shreiber lives on a 113-acre farm in Mullica Hill, New Jersey, shared with four horses, two burros, two pygmy goats, one cat, and four dogs—all rescued animals. Two of his children now work at J&J; the third is a veterinarian. “By and large they have the same commitments I have.” His guideline for supporting causes you believe in: “Look at what developed in the past and the promise in the future. You can be part of it.”

Gery Shreiber was presented with the inaugural Albert and Harriet Soffa Lifetime Achievement Award at the Mid-Atlantic Region’s annual Tribute Brunch on November 12. ■



Reaching for the Stars

THE NEXT CHAPTER IN DESERT RESEARCH

“I’M NOT LOOKING for just good people—I’m looking for stars,” says Prof. Boris Zaltzman, director of BGU’s Jacob Blaustein Institutes for Desert Research. “Right now we’re in the middle of a huge generation shift. The people who built this place are retiring

“For me, the desert is an infinite source of challenging and interesting problems. This makes it the best place for scientific pioneers.”

— PROF. BORIS ZALTMAN

or soon will. We decided to take this opportunity to invest most of our resources in recruiting the best people: young, non-conforming scientists.”

Prof. Zaltzman, an applied mathematician, chose to move 26 years ago from the center of Siberia to the center of the Negev desert—where BGU’s Sede Boquer Campus is located—because its extreme environment intrigued him. “For me, the desert is an infinite source of challenging and interesting problems,” he says. “This makes it the best place for scientific pioneers.”

The Blaustein Institutes originated in the 1970s and have evolved into a driving force in basic and applied science and technologies for sustainable drylands development. Almost 90 researchers supported by an equal number of administrative and technical staff work in the three research institutes that comprise the Blaustein Institutes: the Zuckerberg Institute for Water Research; the Swiss Institute for Dryland Environmental and Energy Research; and the French Associates Institute for Agriculture and



Prof. Boris Zaltzman

Biotechnology of Drylands. In collaboration with each other and researchers throughout BGU and around the

world, they investigate water, plants, animals, solar energy, and dryland ecology and environment, working in numerous related fields. Today, this research is especially appealing around the globe as more and more regions face the urgencies of creating safe water supplies, fighting desertification and making drylands habitable.

Prof. Zaltzman is a member of the Swiss Institute’s Alexandre Yersin

Top: Students who participated in the first summer school program proposed by Dr. Vered Tzin and other new faculty members

Department of Solar Energy and Environmental Physics. He and his colleagues have successfully recruited more than a dozen top-flight new scientists with more to come on the horizon.

Capturing these “young leaders,” in Zaltzman’s words, gives the Institutes additional advantages. “We’re building our network of leading universities—that’s my second strategic goal. We support our young scientists’ short visits to their alma maters to produce more collaborations, continue the recruiting process and bring excellent students to our Institutes.” Zaltzman feels that already the new faculty has hit “critical mass” and he is excited to see results emerge.

The educational arm of the Institutes, the Albert Katz International School for Desert Studies, offers graduate and postgraduate degrees. Zaltzman’s dream is to add a substantial undergraduate program. “Having young, inquisitive and socially active students live and study in the center of the Negev will change its whole physical and social landscape,” he believes.

Another goal is to attract more students from areas such as Africa, where the new technologies hold great promise for improving people’s lives.

MEET THREE OF THE NEW STARS

DR. AVRAHAM BE’ER *Zuckerberg Institute for Water Research*

Dr. Avraham Be’er is a physicist in the Department of Desalination and Water Treatment. He is interested in dynamics, specifically the motion of particles that self-propel without the action of an external force. During postdoctoral work at the University of Texas at Austin, he focused on this process in bacteria and learned that issues relating to bacterial



Dr. Avraham Be’er

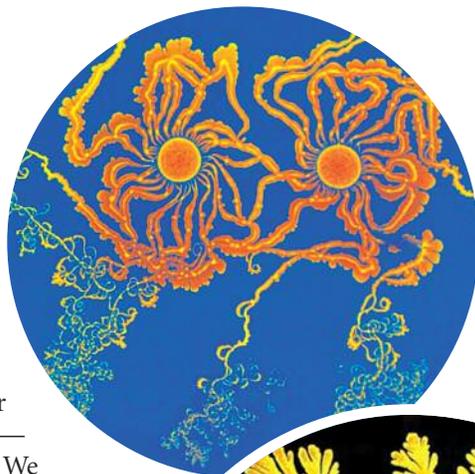
movement arise in the process of purifying water.

He chose to continue his research at the Zuckerberg Institute for Water Research. “The atmosphere is positive, the entire place looks wonderful

and students from all over the world are involved. It’s special because elsewhere people care mostly for basic science. Here it is 50-50. We do not want to sink into basic science; we also want it be relevant.”

When water is purified, he explains, bacteria accumulate on the surface of membranes used for filtration. The bacteria find their way into the membrane’s tiny holes and

stay, a process called biofouling. “If we understand the movement of bacteria on surfaces, we may find a way to prevent them from accumulating.”



Bacteria swarm in distinct patterns. Dr. Avraham Be’er believes learning why they swarm and how to manipulate their movement could have a dramatic impact on the effectiveness and cost of desalination.

This is important because filtering and reverse osmosis membranes are essential to desalination—Israel’s main solution to its water scarcity and the best hope for many other dry regions.

Even totally unrelated species of bacteria exhibit universal behavior, Be’er finds. “Most motile bacterial species have several motors hooked to flagella and can move, communicate and navigate their motion depending on what they need,” he says. “They’re not just moving, but following rules, making collective decisions, acting as groups.” A community of bacteria can migrate over large distances, sense and respond to their local environment, alternate their structural shape, and assume



Top left: Hadar Buim, a biology student, with a fluorescent illumination optical microscope. During the summer, Dr. Avraham Be'er's lab opens its doors to undergraduate students who want experience in multidisciplinary research in biophysics. **Lower left:** Shlomit Peled, a chemical engineering student, alongside an atomic force microscope.



Green-peach aphids, piercing/sucking insects, consuming sugars and nutrients from tobacco leaves. Dr. Vered Tzin's team raises a colony of these insects to stimulate the defense responses of various plant species.

specific patterns. In fact, colonies from the same culture—siblings—will go to war and kill each other when competing for the same resources.

“We want to beat the bacteria with their own weapons, so we need to understand how they behave.”

— DR. AVRAHAM BE'ER

Assisted by two microbiologists and a mathematician, Be'er currently focuses on researching the role individual bacterial length plays in their collective motion on surfaces. Most of these bacteria are rod-shaped and display an aspect ratio of about five (their length is five times their width). “Why did

evolution choose this specific ratio? There must be physical as well as biological reasons.”

To find out, the team modified a known species of bacteria to create several variants with different aspect ratios and looked at strains of different size. “We showed that their motion over territory—how far they can migrate, for instance—was best in the five to six ratio.” These experiments have big implications, Be'er says. “We want to beat the bacteria with their own weapons, so we need to understand how they behave. Using the regular ways, we always lose!”

One reason we lose is that bacteria can act with extraordinary speed. “They can change their abilities in a few generations, and a generation is sometimes less than an hour. A colony develops, and by the time you treat it with antibiotics, it can come up with mutants and the strength to survive.”

Dr. Be'er's research may benefit medical research as well as water treatment applications. He will work with industry to put his discoveries to practical use.

DR. VERED TZIN

French Associates Institute for Agriculture and Biotechnology of Drylands

The life of plants fascinates Dr. Vered Tzin. “They stay in one place, but they can do everything any organism does. How do they do that? How do they grow? Resist threats?” This curiosity led her to concentrate on plant metabolites: compounds that plants synthesize for growing, developing and defending themselves.

It is the defense aspect that occupies her new lab. Dr. Tzin defines her work as insect management, noting that 20 percent of global food production—including the U.S corn crop—is lost to herbivores.

Dr. Vered Tzin



After investigating the plant-insect interaction in postdoctoral work at Cornell University, Tzin returned to Israel and chose to continue her work at BGU.

Her lab looks for ways to help plants resist destructive insects. In one experiment, her research team interfered with the piercing and sucking insects

“We want to bring back the natural defenses and perhaps combine them with soft pesticides that are friendlier to the plant, the environment and us.”

— DR. VERED TZIN

that attack local crops by feeding them fragments of the plant’s RNA. This reduced the insect’s own RNA, preventing them from growing. In other experiments, the team compared different types of wheat to see if wild wheat had more insect-resistant genes.

“Each plant has a set of metabolites to defend itself,” Tzin says. “Without pesticides, plants produce as much toxin as they can to keep growing and protecting themselves. But when we breed wheat or tomato plants for a bigger yield, bigger fruit or better color, we reduce their protective mechanisms. Then farmers use more pesticides and the plants produce even less toxin.”

The natural toxins are part of our favorite vegetables and cereals. Is consuming them better for us than food exposed to chemical pesticides? Tzin says maybe not. “In a way, eating organic vegetables not treated with pesticides can be more toxic than conventional treatment—we see how it affects the insects!”

However, reducing natural toxins may negatively affect a food’s taste, flavor and smell. Such traits might be recovered by re-introducing genes from the wild plant. Tzin has done this with

a tomato, producing one with a more appealing fragrance and taste, now patented for production.

Overall, she thinks the best approach to combatting insect predators is a balance between natural and man-made defense mechanisms. “We want to bring back the natural defenses and perhaps combine them with soft pesticides that are friendlier to the plant, the environment and us.” She has high hopes for applying newly available gene-editing techniques to the research repertoire.

An intriguing phenomenon is that substances such as caffeine, nicotine, cannabis, morphine, and cocaine are created by plants for their own protection. This is recognized in the tobacco industry. Before harvest, tobacco producers routinely wound the plants with a machine that increases the metabolites—the defense toxin. The effect produces the same reaction as wounding by a caterpillar or a grazing herbivore, but is more concentrated. This amplifies the nicotine.

Dr. Tzin grew up in southern Israel and relishes the community aspect of her research, working with farmers on local crops. She appreciates the openness to new thinking that she finds at the Blaustein Institutes.

“Seven of us, all new faculty members, had an idea for a summer school.

Seven months later it’s a program with 15 wonderful students! This is a very supportive environment. Academia can be conservative, but here you come up with an idea, present it well and people open doors.”

DR. MUHAMMAD BASHOUTI

Swiss Institute for Dryland Environmental and Energy Research

Dr. Muhammad Bashouti knew in high school that he was “crazy about science.” Undecided about which field to special-

ize in, he chose two, physics and chemistry, aiming to explore the interface between them. Through his M.S. and Ph.D. programs, he developed knowledge of both fields and then added electrical and chemical engineering, working with nano materials. Before joining the Blaustein Institutes, he spent five years at the Max Planck Institute for the Science of Light in Germany.

Dr. Bashouti joined the Swiss Institute’s Alexandre Yersin Department of Solar Energy and Environmental Physics a year ago to lead a lab in photo electronics. His combination of expertise is unusual, he admits. “But science has changed. Nowadays we like to know different disciplines so we can investigate the things we’re interested in. But I can speak the



To study how young maize plants respond to corn-leaf aphids, leaves are covered with clip cages infested with the insects. Leaf tissues are collected after a few days and the toxic molecules involved in defense are extracted.

language of chemistry and I understand physics and electrical engineering, so my group is unique.”

His six students come from all three programs and meet weekly to share their work. “Everyone starts to understand what the others are doing and we’re making a common language.”

The goal of his highly technical work, Bashouti explains, is to “understand the basic unit of life—the molecule. If we understand its optics and electronics, we can fabricate new devices that are

Dr. Muhammad Bashouti

faster, more efficient and save energy.”

Dr. Bashouti’s lab experiments with the surfaces of molecules and their interaction with the environment. A layer of selected molecules is added to the original molecule’s surface, which transforms the material’s properties. He likens this to cosmetic surgery.

“If you change the surface of a person’s physical appearance, he’ll have different interactions with friends or the environment, but the person is himself unchanged. In our case, we change the molecule’s surface by

adding to it, and its interactions with materials change. But this doesn’t change the material inside.”

His lab has a chemistry room to prepare the molecular surfaces and a physics room where the new surfaces are characterized, using an advanced instrument called the atomic Kelvin-force microscope, which provides resolution on the order of fractions of a nanometer (one billionth of a meter).

“If you shrink a material down to the nano level, you change all the properties,” Bashouti explains.

“You can take gold and make it red or blue or orange. You can shrink an insulator and it becomes a conductor. Or take a conductive material and shrink it down to become an insulator. We try to understand the mechanics, but don’t always get what we expect.”

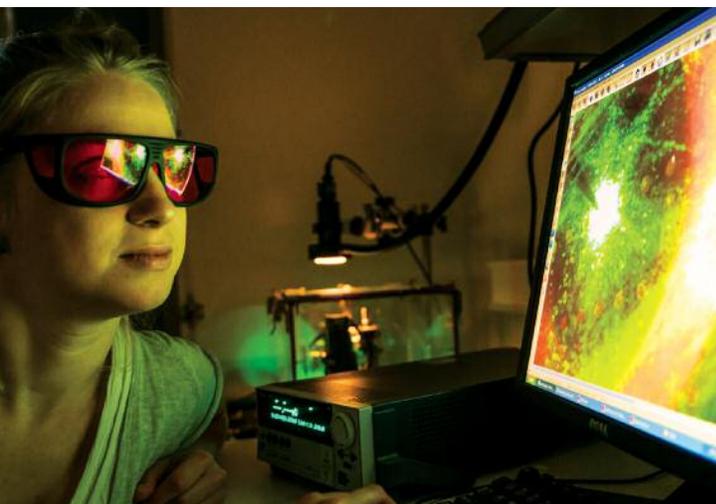
Dr. Bashouti is conducting basic science, but the practical applications are tantalizing—and, he believes, within reach. He is engaged by three companies to

“If we understand the basic unit of life—the molecule—its optics and electronics, we can fabricate new devices that are faster, more efficient and save energy.”

— DR. MUHAMMAD BASHOUTI

consult on their research problems. One aims to fabricate a new generation of solar cells that will be twice as efficient but cheaper than current cells. Another is working on “smart windows” technology to give the vision-impaired a new generation of glasses. The third is a biochemical company that hopes to use optical interaction to detect diseases by adding a single molecule to a tiny drop of blood. ■

To support desert research at BGU, go to www.aabgu.org/donate-desert-water-research



Yulia Furmanskyy-Aizikovich, a Ph.D. student in the Department of Solar Energy and Environmental Physics

PUZZLING OUT THE CAUSES OF AUTISM



IN THE UNITED STATES today, one in 68 children is diagnosed with autism, a disorder symptomized by social interaction problems, restricted interests and repetitive behaviors. Autism is currently the most prevalent childhood disorder in this country and the cost is high: an estimated \$265 billion in 2015. Despite the high priority of understanding autism and treating it globally, autism continues to puzzle researchers.

To address this challenge, BGU scientists and medical professionals created the Negev Autism Center in 2015. Leading the collaboration are Dr. Ilan Dinstein, a neuroscientist in BGU's Department of Psychology; Dr. Idan Menashe of BGU's School of Public Health, a geneticist and epidemiologist who specializes in bioinformatics (the analysis of big data); and Dr. Gal Meiri, a lecturer in the Department of

Psychiatry and a child psychiatrist who heads the pre-school psychiatry unit at the neighboring Soroka University Medical Center.

“Our goal is not to cure autism, but to find new tools and techniques that help diagnose children during the first year of their lives.”

— DR. ILAN DINSTEIN

The team conceived an ambitious project to create the first comprehensive database of children with autism and their families in Israel. The database promises to become a critical tool for finding new answers to this complex developmental disorder. The scientists began with the view that there is no

single answer to autism—a fact most scientists agree with after 15 years of serious research. “It’s a family of distinctly different disorders that probably have multiple different causes and require a variety of different treatments,” Dr. Dinstein explains.

While all diagnosed children exhibit common symptoms, such as social communication problems, their underlying biology varies greatly. “There seems to be many paths to autism,” Dr. Menashe says. “In some cases it may be caused by a genetic problem, while in other cases it might be environmental exposure. We need to distinguish between different autistic disorders.”

“Our goal is not to cure autism,” Dinstein says, “but to find new tools and techniques that help diagnose children during the first year of their lives and identify their subtype. Then we can recommend optimal interventions to ameliorate as many of the symptoms as possible.”

Top: A painting made for Dr. Gal Meiri by a child participating in the Negev Autism Center programs

STUDYING YOUNG CHILDREN

Uniquely, the group studies the disorder at its earliest stages of development. “Most contemporary autism research is carried out with adolescents and adults,” Dinstein says, “but remarkably little has focused on young children under the age of eight, who are harder to work with.”

“We want to study early changes in the brain and in hormonal levels, as well as sleep problems, sensory sensitivities and other issues that may hold vital clues for understanding why and how autism develops in specific children.”

“We hope to find new tools to make a child with autism more independent and able to handle the daily tasks of life.”

— DR. IDAN MENASHE

The center has already collected a wide range of information from more than 400 children and their families in a period of two and a half years. The data include the children’s birth records, behavioral tests, parental questionnaire, DNA samples from the child and parents, eye tracking tests, overnight EEG recordings, and a wide variety of clinical information extracted from Soroka hospital’s medical records. Already the most comprehensive autism resource in Israel, it is growing quickly.

Data analysis then connects directly to Dr. Meiri’s autism clinic at Soroka, which is fully equipped for research experimentation. “The research supplies information that clinicians don’t always have time to gather,” he says.

“One important benefit is that we can now track children in the south and the care they’re getting more carefully and see who is improving in each educational setting. We can also compare children of different ethnicities and socio-economic levels.”

Since children with autism return to Soroka for annual follow-up visits, the research team is well positioned to conduct longitudinal studies. It can find out which children benefit most from each existing therapy and who needs new approaches.

“Integrating the center’s research tools into clinical trials makes them much more powerful,” Meiri says. “We can, for example, see whether the effect of a new medication depends on the genetics or sleep-EEG of a child. Such research is extremely rare and important for understanding how medications affect children with autism.”

As a clinician, Meiri views research as a “professional, even moral obligation for the children and parents.” He sees the excellent cooperation of the families as a response to the team’s collaborative approach.

RESEARCH AND DISCOVERIES

Current research at the center includes several avenues:

Brain activity during sleep. The team records brain activity from toddlers with autism during natural sleep using EEG to determine why some children with autism have sleeping problems. “Some children with autism sleep fine,” Dinstein says, “but almost 50 percent have severe sleeping problems to the point of insomnia.” Using the EEG recordings, the team observed that these children’s sleep is very shallow. They recently discovered that these children also have intense sensory sensitivities, particularly to touch.

“This motivates us to search for ways of increasing the depth of sleep and reducing the sensory hypersensitivity in these specific children,” Dinstein says. “One potential answer may be medicinal cannabis.”

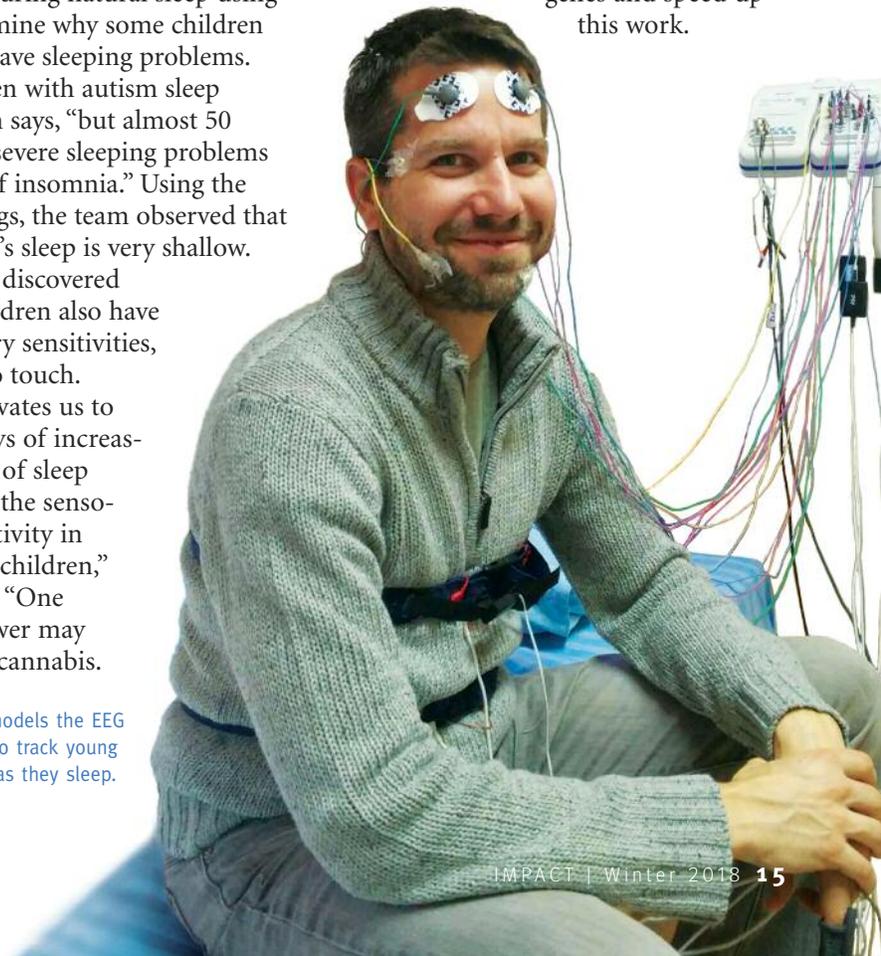
Dr. Dinstein models the EEG system used to track young children’s brains as they sleep.

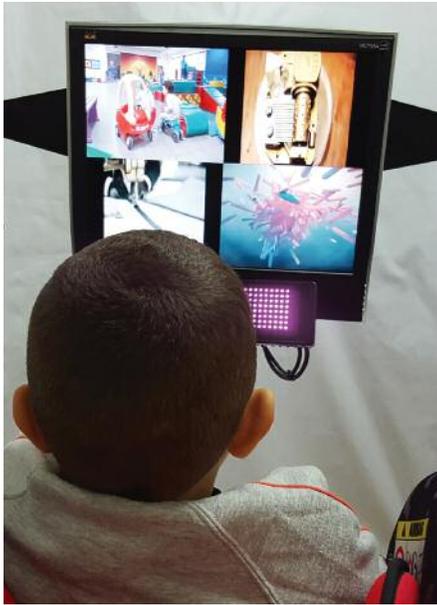
A child with this set of problems won’t be very receptive to behavioral interventions, but if we can first improve his daily life he may be more open to them.”

Whole Genome Sequencing. Existing studies suggest that about 50 percent of the risk for developing autism lies in a child’s DNA. To combine existing knowledge about autism’s genetics with the research, saliva samples are collected from many of the families in the database and sent out for whole genome sequencing.

“By combining the genetics with the other behavioral, neural and clinical data that we’re collecting,” Menashe says, “we hope to discover how genetic susceptibility combined with environmental situations, such as problems during birth, may cause autism in some children.”

A major challenge is to find the genes that cause autism. About 1,000 genes are associated with it, but only 70 have been identified. “I look for better ways to identify the genes,” Menashe says. He recently found a way to substantially cut down the candidate genes and speed up this work.





Eye tracking: One in 42 boys is diagnosed with autism. Tracking eye movements at the Negev Autism Center allows researchers to quantify the severity of each child's social symptoms.

Eye Tracking. At the center, youngsters with autism view movies that contain social scenes such as children playing, arguing and interacting in different ways.

When typically-developing children view such movies, they tend to spend most of their time observing the faces of the interacting characters.

“About half of the children with autism do not look at these movies in this way—they avoid looking at faces,” Dinstein says. “Tracking their eye movements allows us to quantify the severity of each child’s social symptoms, giving us another dimension for evaluating him. And over time we can compare his scores to see whether an intervention is working.”

Clinical trials. The center’s first clinical trial, to start later this year, will test the efficacy of a medical cannabis extract that is known to have a positive impact on social behavior. The specific strain is expected to help children with sleep problems and sensory hypersensitivity. The team plans to conduct the first double-blind clinical trial of this treatment worldwide.

“We hope that positive results in an initial small study will lead us to a larger multi-site study in the future,” says Menashe. “Many parents are very

“We want to turn BGU into the mecca of autism research and clinical care for the entire Middle East.”

— DR. ILAN DINSTEIN

eager to try this with their children.”

As they begin putting together the puzzle pieces, the team has both high aspirations and down-to-earth expectations for the Negev Autism Center. “We think about how to help people,” Menashe says, “so the children and their families can live with autism in the Negev. We hope to find new tools to make a child with autism more independent and able to handle the daily tasks of life. That can create a dramatic change for both the child and the family.”

“We’re highly motivated and very ambitious,” Dinstein concludes. “We want to turn BGU into the mecca of autism research and clinical care for the entire Middle East.”

Dr. Meiri, who advocates for autism services in the Negev community, finds another immediate use for the new information. “The data has a lot of impact on our recommendations to improve policy. When I meet with the mayor of Beer-Sheva and representatives of the health ministry, I now have the numbers and data to show them what is happening in the field. This is extremely helpful for developing local autism services.” ■



Negev Autism Center researchers Dr. Idan Menashe, Dr. Gal Meiri and Dr. Ilan Dinstein (bottom row) and students commemorated World Autism Awareness Day by lighting up BGU’s Marcus Family Campus in blue.

Funds are being sought to expand the facilities and research of the Negev Autism Center. Go to www.aabgu.org/donate-autism

Behavioral Economics

WHAT MOTIVATES OUR DECISIONS?

Does looking at images of super-thin women lead teenagers to under-eat or over-eat? Is competition an incentive or disincentive? Why do so many people start businesses that fail? How does our mood influence our stock market purchases? Why do misunderstandings generate aggression?

IF YOUR IMAGE of an academic business program consists only of subjects like finance, organizational planning and market dynamics, think again. At BGU's Guilford Glazer Faculty of Business and Management, students learn the traditional core subjects but can also choose courses you might expect to find in psychology departments. "Behavioral economics"—the study of how people make decisions and what influences them—is a growing component of management programs, and a thriving one at BGU.

Like many other university programs, the Glazer Faculty promotes research that merges theoretical knowledge with the practical. Research endeavors to answer basic questions like those on the above list.

"We are leading in Israel," says the business faculty dean, Prof. Oded Lowengart, "and it's a good feeling to see the quality of our young



Prof. Oded Lowengart, the Ernest Scheller, Jr. Chair in Innovative Management and dean of the Guilford Glazer Faculty of Business and Management

energetic people, their high-impact research and their collaborations. People want to join us. We get the best students on every level." The Glazer Faculty has the largest number of management Ph.D. students in Israel.

MARKETING AND OBESITY

Prof. Lowengart, a marketing expert in the Department of Business

Administration, engages in research on consumer perception and choices, as well as marketing finance and international marketing. He is interested in the interplay of perceptions and attitudes that motivate buying decisions and how both can be affected. His published studies address questions like how to influence people's fast-food choices toward healthier options, the impact of calorie count information on decisions,

and gender differences in food choice.

Prof. Lowengart currently studies the impact of super-thin magazine models on young women. "There's a lot of recent criticism about how skinny models lead to eating disorders and overweight," he says, "and we're also interested in the effect on the ordinary population."

The body mass index (BMI) of the "ideal female" as portrayed in advertising has steadily moved downward since the 1980s. This trend began when advertising shifted to showing whole bodies rather than mostly faces, Lowengart explains.

The study, based on data from the National Health and Nutrition Examination Survey, reveals a counter-intuitive result. "Young females who are close in measurement to the model will restrain their eating to become similar in size to her. But if they are 20 pounds heavier than the ideal, they will see this model as unobtainable. They also tend to feel they look good relative to the general population, which generally is heavier than young



females. So these women show no restraint in eating more calories.”

Rather than losing weight, they gain weight. Young women between ages 15 and 29 account for 20 percent of the Israeli population. Therefore, in addition to moving the overall BMI statistics up, their weight has a compounding effect on the people around them and contributes to “an epidemic of obesity.”

What can be done? In Israel, Lowengart says, a minimum BMI has been decreed for models. “This makes it easier for young females to compare themselves to models and is decreasing the incidence of anorexia” in those who strive to look like the models they see.

COMPETITION: THE PROS AND CONS

Dr. Uriel Haran, of the Department of Management, began his studies as a psychology student and became excited about lab work and decision-making. When he reached the Ph.D. level, he found more opportunities to follow up his interests in business schools rather than in psychology departments, so he learned business and organizational behavior before arriving at BGU—“my number one choice.” He especially values the University’s interdisciplinary Center for Decision-Making and Economic Psychology, which meets weekly and fosters numerous collaborations.

For Haran, the key difference between management-oriented research and psychology is applicability. “My mission is to uncover findings that influence real life and help managers make their employees happier and more productive.”

Dr. Haran’s focus on competition was triggered by his own experience in graduate school. “We were encouraged to cooperate but knew we’d later compete for the same jobs. That got me thinking. Is competition good for us, or not? Is it an addiction? Does



Dr. Uriel Haran

comparing ourselves to others lead us to do better?”

One current research project aims to understand how emotions affect competition. The findings are complex. If very fierce competition is fostered, as with some sales teams, workers may spend more of their energy sabotaging others. Competing with people whom you perceive

as less capable than yourself has a detrimental effect on your own efforts, Haran and his colleagues found. Finally, the most competent candidates may choose less competitive jobs, perhaps because they do not like conflict. Understanding why this happens is important to improve management, Haran notes.

In one recent experiment, people in two identical groups were given 20 shekels each (about \$6) to bid for a small prize (a USB stick) against another person. Members of one group knew only that they each were competing with someone else to win the prize. But members of the second group were given a small piece of information: a number arbitrarily assigned to identify their competitor.

“Those who were given the identity of their opponent, though only in the form of a number, offered more money—even more than we gave them—to win the bid!” Haran was surprised to find that a substantial percentage added money from their own pockets, more than the prize would cost them in a store.

“They overpaid because they wanted to beat the other person. It suggests that when you know even a little more about someone you’re competing against, you work harder; you’re more persistent.”

Dr. Haran also researches why so many people open businesses that fail. There are several types of overconfidence, he says, and knowing which

type a person has is important. People often overestimate their advantages over competitors. “You can do everything right but not realize that many other people can do it right, as well. So it’s better to find a niche where you can be the best—which may mean going into something harder and more complex.”

HOW WE MAKE FINANCIAL DECISIONS

Dr. Yaron Lahav followed another route to BGU. He studied economics and then worked successively as an economist, financial manager and consultant before deciding to switch to academia and live in southern Israel.

His dissertation focused on experimental economics, but his work with Deloitte introduced him to global business tax issues. “For years I tried to decide between the two fields and couldn’t,” Dr. Lahav says, “so I’m doing both.”

He focuses on the relation between decision-making and beliefs. In the past, he explains, economics dealt with what people *should* do, but this assumed they were individuals who made perfect, emotion-free decisions to maximize their own well-being. “But people are not stones that always fall the same way—they have different reactions at different points in time.”

One ongoing project aims to assess the impact of emotional mood on stock market decisions. “How do sad people versus happy people make decisions to buy or sell?” In one experiment, he showed people three minutes of Jerry Seinfeld comedy. “It’s amazing what a short happy video clip can do to people,” he finds. “People in a good mood take more risks, invest more optimistically.

Those in a bad mood tend to process information themselves rather than believing someone else, and tend to overthink everything.”

In other research, Lahav used game



Dr. Yaron Lahav

simulations to uncover a common pattern. When interest rates go down, people tend to take more risks. Understandably, they want to compensate for their losses. But the opposite does not necessarily happen. “Why don’t people reduce their risks when interest rates go up? This is an ‘asymmetric reaction’ and the traditional theory does not explain it.”

Dr. Lahav devised a lab experiment with his colleague, Uri Benzion. They gave people 1,000 francs (an imaginary currency that exists only in the lab) to invest and asked them to decide between a risky asset and a risk-free one with a known interest rate. The asymmetric reaction was in fact replicated. When interest rates dropped, people chose riskier investments but did not reduce risky positions when interest rates rose.

“We showed that this asymmetric behavior happens only when there is a relatively long period with high rates that suddenly drop. When rates change often, you don’t see this phenomenon. It seems that when interest rates are high for a long time, it has an anchoring effect in our minds—we accept it and expect them to stay high and react as if they will.”

Dr. Lahav finds himself “often surprised that competitive markets generate ineffective, undesired results.” He wishes people could make better financial decisions based on knowledge. “But I realize more and more that the ‘software’ inside our heads, which has been developed for millions of years, has its advantages and disadvantages and is very difficult to improve.” More and more companies are taking advantage of these behaviors and purposely attempt to trigger them in their marketing, he laments.

PREVENTING NEEDLESS AGGRESSION

Dr. Dorit Efrat Treister is interested in how human aggression—behavior with an intent to harm—is generated by miscommunication. Growing up in a bicultural family, she went to school both in Israel and in the United States,

and to universities in Israel, Spain and Canada. She noticed from her early years that misunderstandings happen when people act based on different perspectives. Working as an organizational psychologist during her military service deepened this interest and she studied psychology for all her degrees.

Some of her research in this area is in direct response to needs in the field. One large Israeli hospital called upon her team to investigate aggression against the staff so severe that they summoned the police daily. Most of the incidents occurred in the emergency room (ER), so Treister showed up, sat, observed, and took notes. “I saw that aggression didn’t happen randomly and it was predictable.”

“Understanding the gaps in perception between cultures will help us build bridges between them and then we can get along better.”

— DR. DORIT EFRAT TREISTER

Often the point of contention came from cultural differences. “One of the ER’s rules is that only one person can come in with each patient. People from individualistic cultures usually come with a single family member and find the rule legitimate. But others, from collectivistic cultures, typically show up with many family members. When people see themselves as part of a collective and are made to choose—between a father, mother and sibling—they will feel offended because there’s no way out of disrespecting all their family members.”

Another rule is that waiting time is organized by level of severity.

“So first-come first-served rules don’t apply. In this case, people from individualistic cultures—but not collectivistic cultures—tend to perceive what they view as line-jumping to be offensive.

“One cultural group is not more aggressive than another—they are offended by different things,” Treister emphasizes. Explanation can usually deflect such feelings before they lead to aggressive behavior. A simple sign such as “One person can accompany each patient,” or “You don’t really want to be the most severe case, do you? Please respect others’ needs” is perceived as fair to everyone because it tells people the rule applies universally. Treister finds that simply explaining the reason for a rule dramatically reduces aggression.

“It’s all in seeing the other person’s viewpoint,” Treister says. “When you see through the patient’s eyes to understand why he feels offended, you can find solutions and reduce aggressive behavior.” ERs are high-tension settings, but the concept translates to other fields with less extreme situations. The effort to see different viewpoints, she believes, is critical to many environments in the Negev, in Israel and throughout the world.

“We offend each other without a reason or intention. Understanding the gaps in perception between cultures will help us build bridges between them and then we can get along better.” Treister’s work has theoretical benefits as well as practical. “There are not many theories out there about how to reduce aggression. I hope to contribute some.” ■

Dr. Dorit Efrat Treister



To support innovative business research and education, go to www.aabgu.org/donate-business

Dr. Eyal Sheiner

RUNNING ON FAST FORWARD

THE FIRST QUESTION that arises for anyone scanning the accomplishments of Eyal Sheiner, M.D., Ph.D., is: How do you find the time?

Dr. Sheiner is a professor of obstetrics and gynecology in the Faculty of Health Sciences. He also serves as the faculty's vice dean of student affairs. He is a practicing physician at Soroka University Medical Center and directs its maternity department. Previously, he served as deputy director general of the hospital and directed the hospital's residency program.

He performs groundbreaking research on pregnancy and birth, focusing on long-term complications during pregnancy. In addition to publishing more than 400 articles, he is thus far the author of 10 books. By early this summer, he had already presented papers at more than 20 conferences for the year.

Did we mention that he also heads the board of the Beer-Sheva Theater, one of the city's central cultural attractions? This is a volunteer job to which he was elected "because I wanted it," he says.

So, how does he make time for all this, as well as for his wife and four children? "I am very effective!" he says. "When I sit, I just sit and I am 100 percent into it. When I work, I am very focused. I do what I'm doing out of love, out of passion. It needs a lot of juggling, but I enjoy every minute." And there's coffee. "I love the smell and the taste."

A typical routine: "I get up at 6-6:30 a.m., go to the hospital and do the rounds with the nurses before the day starts and patients are transferred to the morning shifts. I see what's going on before the doctors arrive and I'm informed; I know who's going into labor. I may schedule another operation. Then morning reports with

doctors. Patients, research, household duties in between—that's life."

Eyal Sheiner set out to become a doctor at an early age, and when the time for university came, he chose BGU for all his degrees. He earned his medical degree, began teaching in the medical school, and added a Ph.D. in epidemiology. After postdoctoral work in Chicago he returned to BGU. "I have a very strong connection with the faculty. This is my home; why should I leave it?"

"Pregnancy is a window of opportunity to detect long-term diseases of both the mother and baby."

— DR. EYAL SHEINER

He describes his current research projects as "many, many." All are clinically oriented. "I like people, not the lab. My epidemiology Ph.D. gives me the ability to ask a clinical question and then study it." He loves the puzzle of researching a problem "to see how everything merges and fits," and once results are in hand, equally enjoys writing about them.

The medical practice presents the problems.

Dr. Eyal Sheiner, M.D., Ph.D.

"Soroka is the sole hospital in the Negev, the southern part of Israel. We handle more than 17,000 births per year, so we see everything. And the parents come to us for follow-up care and when the baby is sick, so we are able to perform population-based studies."

A particular challenge may stir Sheiner's curiosity. Once, he recounts, a patient came in wondering if the bariatric surgery she had gone through



(gastric bypass to promote weight loss) would increase her risk of complications in having a baby. To find out, Sheiner carried out a study involving 300 patients. He found that rather than increasing risk, bariatric surgery before pregnancy reduces the likelihood of

gestational age, are at higher risk of diabetes and obesity in later life. Another finding is that pregnant mothers with family histories of premature delivery are at risk of early delivery and atherosclerotic complications.

Research may not always eliminate worry, but when doctors know the signals to monitor, they have a better foundation for good outcomes.

BRIDGING HOSPITAL AND UNIVERSITY

Dr. Sheiner believes his dual positions with BGU and Soroka give him an ideal opportunity for research. “Because Soroka is the only hospital in the region, we combine fetal, maternal and delivery data. Tying this together with BGU faculty input gives us a huge database.” This wealth of data enables him to undertake long-range studies, some of which span more than two decades and thousands of cases. He can draw from data on 250,000 deliveries.

Teaching, clinical work and research naturally integrate for him. “I tell medical students there are three horizons: first, the clinical issues—we have to treat patients courteously, be there for them and care for them thoroughly—this is the most important. Second, teaching—you should teach the next generation; they will be your doctors one day. Third is the research. Doing all three things makes you a unique and better doctor.”

Realistically, Sheiner acknowledges this pattern does not suit everyone. “I try to find curious doctors. But we are used to working extremely hard, researching between doctoring, and this generation doesn’t work after the night shift. That’s a better thing, and I understand that most new doctors don’t want to invest in research. But I have several enthusiastic students and we run fast forward together.”

Many of the projects are powered by a core team that includes Prof. Shlomo Walfisch, M.D., who is in charge of the high-risk unit in his department, and Dr. Tamar Wainstock, from BGU’s School of Public Health.

“We ask more and more questions. That’s the cool thing—you think you’ve asked everything and there’s more.”

A few years ago, Sheiner began a different kind of initiative. Every week children with autism come to the maternity department to work as volunteers. They fold laundry, help with the babies and wrap presents for the new mothers. And they learn. “We give them classes on health and infectious diseases. It’s a great project!”

Dr. Sheiner’s commitment to the Negev community produces yet more initiatives. He brings in local doctors and obstetricians from outside the hospital to keep them updated. And he loves his role in the leadership of the theater because it enriches the community culturally.

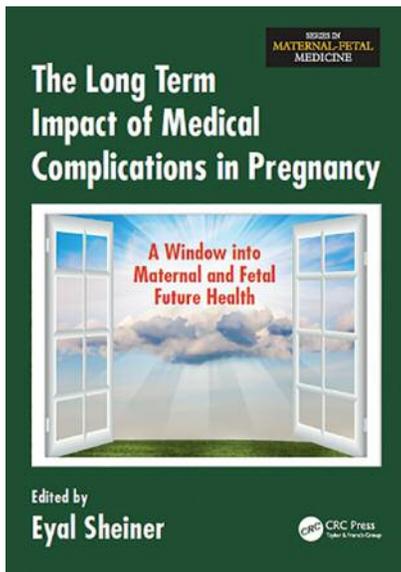
Among Dr. Sheiner’s findings: 50 percent of patients with gestational diabetes will develop diabetes later in life, and gestational diabetic patients are at an increased risk for cardiovascular diseases.

“You live once; you should do a lot. I have to run fast.”

But what about the family? The four children?

“We have quality time, out of Israel and in Israel, too. I take time off with them; we travel—I spent two weeks doing this with one son. When I’m invited to give conference lectures, I’ve taken one of my children. I catch my moments with them. Next month, I am invited to give lectures in Vietnam, so we are traveling together and doing a two-week journey.”

And off he went to a concert with his 14-year old. ■



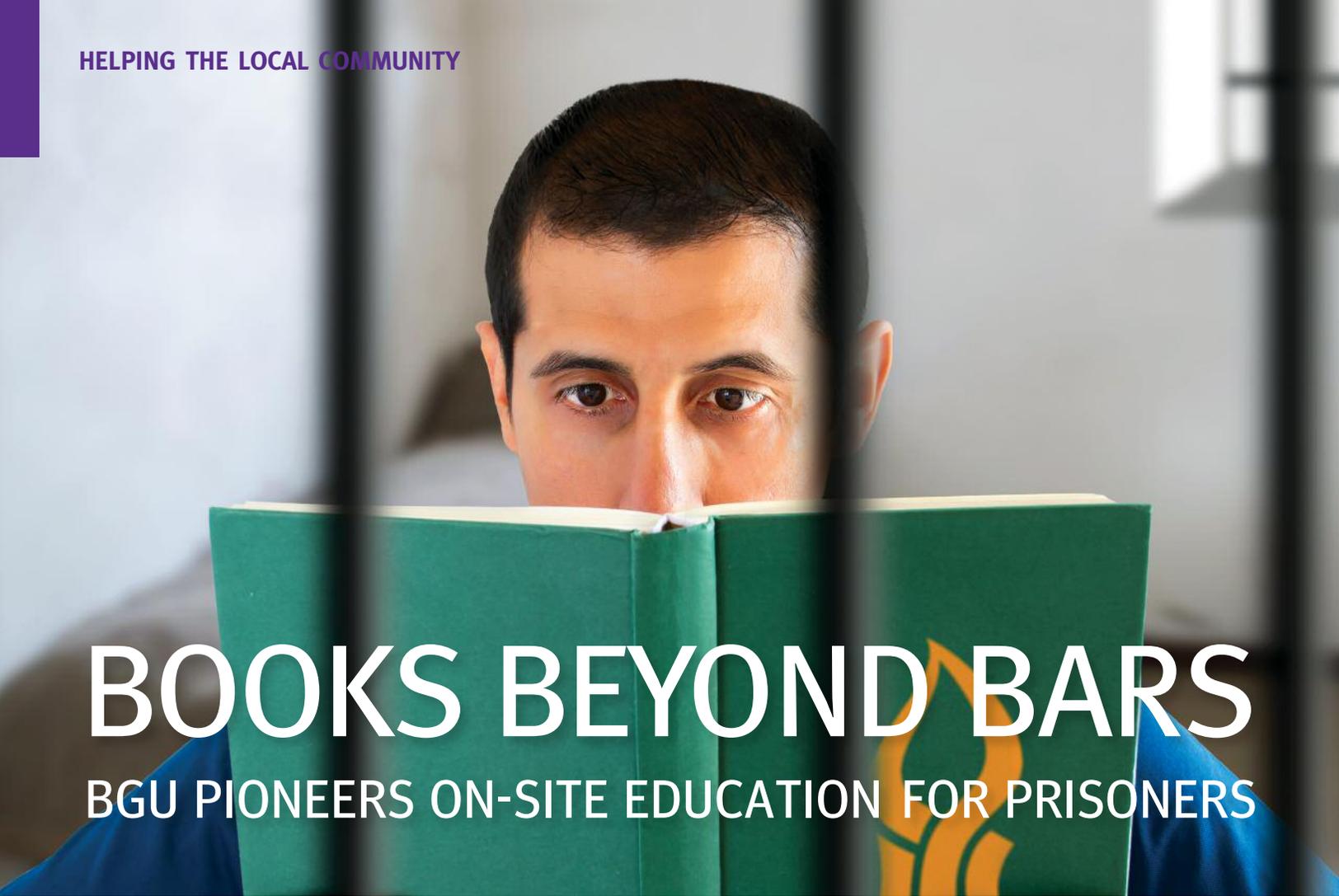
The cover of Dr. Sheiner’s 10th and latest book, published this year.

medical and obstetric complications. “So, women don’t have to worry about it.” The first of such research, this study is widely seen as groundbreaking.

In other studies, Sheiner has shown that women undergoing fertility treatment are not at greater risk of cardiovascular complications, although they and their offspring may encounter other problems.

“Pregnancy is a window of opportunity to detect long-term diseases of both the mother and baby,” Sheiner says. Among his many findings: 50 percent of patients with gestational diabetes will develop diabetes later in life, and gestational diabetic patients are at an increased risk for cardiovascular diseases.

In another study, he showed how deliveries occurring at early term are associated with higher rates of long-term pediatric endocrine and metabolic morbidity of the offspring as compared with deliveries occurring at a later gestational age. Babies born before 37 weeks’ gestation, and small for



BOOKS BEYOND BARS

BGU PIONEERS ON-SITE EDUCATION FOR PRISONERS

“IT’S NEVER been done before in Israel,” says Vered Sarousi Katz, who heads BGU’s Department of Community Action. “There are programs that bring teachers to prisons, but never were prisoners brought to an academic institution to learn.

“It seemed like a crazy idea when we thought of it, but both BGU President Prof. Rivka Carmi and the head of the Southern District Prison Service, Asher Shriki, were very enthusiastic. And we started it!”

This past spring, 11 prisoners, half of them Muslim, the other half Jewish, came to the Marcus Family Campus weekly for 14 weeks to participate in the inaugural program. They were carefully chosen as individuals judged capable of learning and interested in doing so. All were due for release shortly and were already part of a program authorizing them to spend a monthly weekend at home with their

“As the course went on, we had to raise the level of instruction and spent many hours learning and preparing ourselves so we could teach them complicated subjects.”

— EHUD BERGER

families. They came to campus accompanied by two social workers and two guards, all without uniforms, in t-shirts. The group stayed together, separated from the student body.

Each week, they participated in three-hour presentations by the program’s planning team, third-year

medical students Maya Maimon and Ehud Berger, plus several guest lectures by BGU faculty members. The curriculum Maya and Ehud created is basically medical, but also included lectures on physics, geography and philosophy, a robotics lab tour, and a subject chosen by the inmates themselves: the economy.

“We wanted them to taste as much as possible of the academic world,” Ehud says. “We even gave them a midterm and final. Writing the tests was challenging for us because they were not a homogeneous group and even had different mother tongues.” He believes these unconventional students found the tests empowering because “it gave them an experience with something most of them feared failing at and had felt bad about for most of their lives.”

The classes were also challenging in unexpected ways. “When I started

the project I was worried how the interactions with the students would be,” Maya says. “Would they take me seriously? Would they be interested in studying? But throughout I found a group of curious, intelligent and dedicated students. The classes had a very good atmosphere where we not only learned medicine together, but incorporated each other into our lives a bit.”

Each session began with one student sharing something personal with the group, she explains, such as a hobby or the meaning of his name. “Finding out about the students was important and meaningful to me.” The nature of the felonies committed was not part of the conversation.

Eye-opening for everyone was the capability these students demonstrated, despite their scant basic education in most cases. “Actually, when we built the lessons in the beginning,” Ehud says,



Ehud Berger, medical student and curriculum planner and instructor

“I learned that even in the hardest times, when it’s difficult to look ahead, people can still have dreams and aspirations for a better future.”

— MAYA MAIMON

“we aimed too low. We thought, okay, most of them didn’t finish 12 years of school so we better not give them difficult things.

“But as the course went on we had to raise the level of instruction and spent many hours learning and preparing ourselves so we could teach them complicated subjects.” When the participants didn’t understand something, they asked questions until he and Maya figured out a better answer.

IMPRESSING THE PROFESSORS

The guest lecturers also expressed a pleasurable surprise with their students. After lecturing on his medical research, Prof. Eli Lewis, an internationally renowned expert on diabetes, went on record as being astounded and fascinated by “the richness of their individual minds.” He wrote that his research is very complex and challenging even for academicians, to whom he frequently presents. But soon after he began speaking to this group, hands went up.

“I was never faced with such intelligent questions so early in my talk. The audience, some holding printed material on the topic, began asking me about the implications of the work, new directions, novel ideas.

Everything was both well tied to the content I delivered and at the same time out of the box. The result was

that I had to extend the content into the form of a discussion. I had to improvise new graphs on the whiteboard to keep up with their pace. I had to answer difficult questions that I’ve yet to face in such an intense forum.”

The prison inmates also made it clear what the project means to them.

One told Ehud that when he was a teenager growing up in the neighborhood next to BGU, he snuck into the University one day to use a computer, having no access to one. “He told me very emotionally he never dreamed he’d be there, actually sitting in a classroom at a university.”

Another prisoner said, “I never dreamt that I would even clean the



Maya Maimon, medical student and curriculum planner and instructor

University floor, and now I’m here and some of the best students are teaching me.” And another: “The project opened for me new dreams about academic studying and studying in general. When you go to prison, you don’t see anything positive. But now the fact that these doors have opened for us, even if things won’t happen immediately, has given me a lot.”

The course closed with a final ceremony that touched many hearts. Prof. Carmi and the academic staff lecturers, Asher Shriki, and top prison officials were all present. During the ceremony, the wife of one prisoner said that ironically, “prison has become the light at the end of the tunnel for me, because now I know he wants to move on to a normal life.”

HELPING THE LOCAL COMMUNITY

Some of the students were released from prison a few weeks later. Katz believes the program helped them rearrange their thinking about what is possible.

Prof. Carmi is happy that the program speaks so well for the University's work to advance the well-being of the Negev region. "This program constitutes another high point in efforts to make



The closing ceremony: Asher Shriki, head of the Southern District Prison Service; Prof. Rivka Carmi, BGU president; Prof. Riad Agbarid; Sapir Cohen Taub at the podium

"They all told us they want to continue learning and some were preparing university applications," Katz says. "And some said that while they didn't have the luxury of studying earlier, now they know they can do it and will be sure their children know how important it is."

One participant has already applied to become a student in the social work department and has been accepted. It is understood that he is not prepared for university-level studies, so the faculty expects to find ways to support him.

The prison administrators are pleased and encouraged by how smoothly every step of the project went, and with the project's impact on the prisoners. The head of the Israeli prison service hopes the project will represent Israel at an upcoming international civil service conference. "And they are now more open to new initiatives that will bring prisoners into civil life," Katz says.

"When you go to prison, you don't see anything positive. But now the fact that these doors have opened for us, even if things won't happen immediately, has given me a lot."

— PROGRAM PARTICIPANT

BGU accessible to populations that are so far, conceptually, from academic life," she said.

The professors who participated all expressed enthusiasm for doing so again.



Medical students Ehud Berger and Maya Maimon at the closing ceremony. Together they developed the curriculum and taught it, with the help of guest lecturers from a range of departments.

Maya and Ehud are excited to teach the program again this year and plan several refinements. In the meantime, the program is having a major impact on their own thinking.

As Ehud puts it: "When I started the project, I thought some of these people should stay in prison all their lives. But the main thing I found is that some were very gentle and smart and interesting—actually fun people! It made me think that anyone could in certain circumstances commit a crime. But that doesn't mean you're a bad person permanently. You can still give him a chance to go back to society as a good citizen.

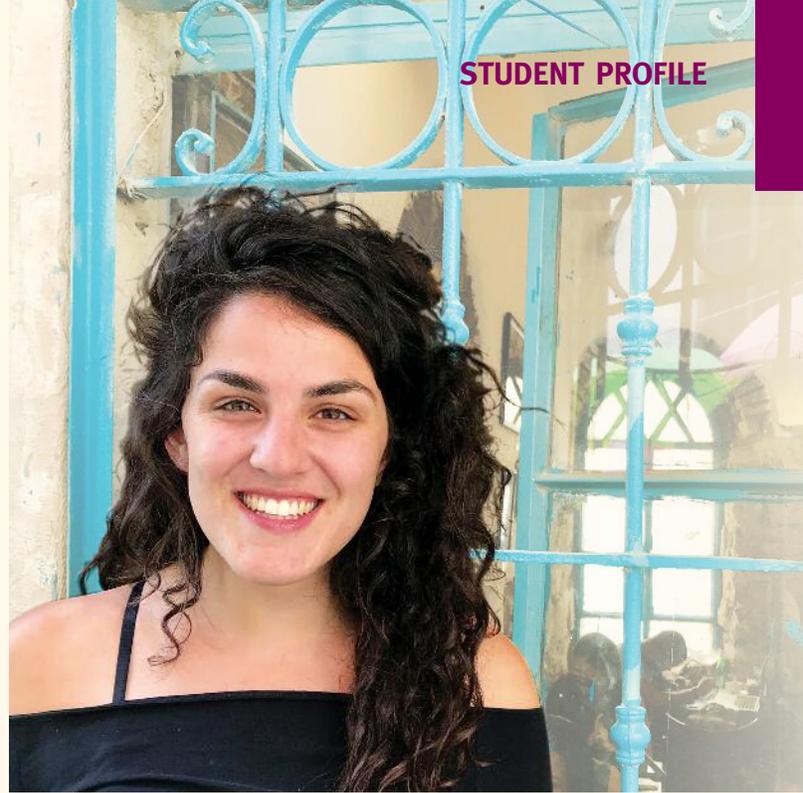
"As a doctor, I know prisoners come to the hospital. I think I will be more comfortable and perhaps want to help them having this new perspective."

Maya felt that throughout the experience she was a student as well as an instructor. "I learned that even in the hardest times, when it's difficult to look ahead, people can still have dreams and aspirations for a better future." ■

To support community outreach programs like Books Beyond Bars, go to www.aabgu.org/donate-community

Rachel Gur-Arie

AN ISSUE A DAY FOR AN AMERICAN IN BEER-SHEVA



A FEW YEARS AGO, then-23-year-old Rachel Gur-Arie—brought up as an “American desert girl”—was looking for a place to use her Fulbright scholarship. In line with her B.S. and M.A. studies at Arizona State University, she knew exactly what she wanted to do: research the ethics of mandatory vaccination. This focus was so specific that her academic advisor told her she needed “a perfect match.” The Fulbright would support 14 months of learning anywhere in the world, and after looking into the possibilities, her advisor suggested BGU.

“I was already curious about Israel,” Rachel says, “because my father’s family was from Morocco and he grew up in Israel. So it seemed the perfect way to get to know Israel and at the same time move forward academically and professionally.”

She likes to do things thoroughly. “I came to BGU early and signed up for the *ulpan* to learn Hebrew because I didn’t speak a single word of it. This wasn’t important to the other Fulbright scholars I met—they did their research and left, a touristy experience. But it’s not so easy to just visit Beer-Sheva. It takes time to get used to it, and you don’t find English on every corner. The other students needed places where English was everywhere—but Beer-Sheva was exactly what I was looking for.”

Rachel did her research plus “everything I could do outside that.” The result: “I built a life that was hard to leave. It seemed a shame to start all over again somewhere else.” Nevertheless, she went back to the States, intending to choose a Ph.D. program. But she found herself facing some big “buts.”

“I realized I missed Israel and BGU. I knew also that the Department of Public Health is really special, and that I wouldn’t find the same opportunity for learning elsewhere. There are other incredible programs for what I’m interested in, but they aren’t focused on bringing good healthcare access to the periphery of Israel. I had fallen in love with that idea the year before. So I went back to BGU and signed up on the last day possible to begin the next semester.

“The moment I signed up, the registrar gave me a piece of advice that I will never forget: ‘Rachel, in Israel, everything is possible.’ It’s true. Despite not speaking Hebrew two years ago, I am now completing my Ph.D. here at BGU in Hebrew.”

Rachel is in her second year as a Ph.D. candidate in health systems management, a department in what is now the School of Public Health. She is embarked on a dissertation about the ethical responsibilities of healthcare workers, particularly in regard to vaccination.

“Worldwide, only 40 percent of them get vaccinated against the flu. But they work in environments that are highly contagious: hospitals. I hope to reveal some interesting contradictions between their technical training and reality—what they say versus what they do.”

Rachel is sure about her long-range interest: bioethics policy and its implementation into everyday life by the government, as well as the private and public health sectors. “But I’m still trying to figure out my career. I know I want to make a difference here. I feel strongly about the mission of developing the Negev. To want to live here, people must have access to the best healthcare services.”

Rachel made *aliyah* this past year. “I’m learning to live in a different language. This gives me a new level of patience, a belief that everything will work out.”

She is the first person in her department to come from abroad for a full Ph.D. program, and realizes the process holds challenges not only for herself, but for those who are teaching her, as well. “There’s a new issue with me every day. I’m a guinea pig for how to deal with foreign students. It’s not easy to accommodate us while upholding the department’s standards. It’s a struggle—but we learn together.

“I can manage in Hebrew, but in some classes it can take me so much time to translate things, like math calculations. But I don’t freak out like I used to. And here I feel there’s a purpose to the competition. It’s not just about coming out ahead, like in other places. Here, people want you to succeed, and the best solutions win.

“I love the University.” ■

GREAT LAKES

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A PERSONAL COMMITMENT TO LITERATURE

Mark Twain scholar and University of Michigan-Dearborn Prof. Emeritus Lawrence I. Berkove wanted to make a difference at BGU by supporting those who commit themselves to the humanities. More than a decade ago, he and his wife, Gail, established an endowment fund to award an annual prize alternating between students studying American and Hebrew literature. They were able to see their impact firsthand when, on occasion, Larry was invited to BGU as a guest lecturer. This year, the prize was presented to Michal Calo, who is focusing on how women speak and interact in English literature.



1. BGU Prof. Nadav Davidovitch, Doreen Hermelin and UM SPH Prof. Martin Philbert
 2. BGU Prof. Ofer Shiff and Ken Tucker
 3. Zin Fellows: Sam Fields; D'ror Zetouni; AABGU Board Member Stew Flink; David Harkavy

CELEBRATING THE BGU-UM PUBLIC HEALTH COLLABORATION

Nearly 50 community leaders, researchers and students came together in the Detroit-area in June for an exclusive reception celebrating the long-term and productive public health partnership between the University of Michigan (UM) and Ben-Gurion University. The event also celebrated BGU's recently established School of Public Health, which emerged from the University's excellence in epidemiology, biostatistics, health systems management, sociology of health, gerontology, and emergency preparedness and response.

Hosted by community leader Doreen Hermelin at her beautiful home, guests

heard from Prof. Nadav Davidovitch, M.D., Ph.D., director of BGU's School of Public Health and vice dean for global affairs, Faculty of Health Sciences; Mark Katz, M.D., adjunct professor, Department of Epidemiology, UM School of Public Health (SPH) and adjunct professor, BGU Medical School for International Health, BGU Department of Health Systems Management, and head of infectious diseases for the Clalit Research Institute; Prof. Arnold Monto, M.D., Thomas Francis Jr. Collegiate Professor of Public Health, Department of Epidemiology, UM SPH; and Prof. Martin Philbert, Ph.D., dean of UM SPH.



LEARNING ABOUT THE JEWISH WORLD IN ISRAEL

Prof. Ofer Schiff joined BGU supporters in the Chicago-area in August for a special lunch presentation at The Standard Club. In addition to speaking about the Ben-Gurion Research Institute for the Study of Israel and Zionism, he discussed his role as the head of the Israel and World Jewry Laboratory, part of the new Center for Israel Studies.



ZIN FELLOWS RECEPTION

In Chicago, Great Lakes alumni from the first three classes of the Zin Fellows Leadership Program met one another as they enjoyed a September evening of networking and knowledge. They were joined by Prof. Dani Filc, M.D., Ph.D., vice dean, BGU Faculty of Humanities and Social Sciences and chair of the Center for Health, Society and the Humanities, who discussed the challenges facing the Israeli healthcare system. Multiple fellows remarked that they look forward to more opportunities to learn from BGU's top faculty.

GREATER FLORIDA

GREATER FLORIDA
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Billy Joel, Edward Kaplan, Jan Liff,
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AABGU EXTENDS OUR THOUGHTS
AND PRAYERS TO ALL THE
COMMUNITIES AND PEOPLE
IMPACTED BY HURRICANE IRMA.

OASIS OF INNOVATION

Attending the 2017 Oasis of Innovation at BGU's 47th Board of Governors, the University's annual open house, were Joel Reinstein, an AABGU national vice president, and Jan Liff, AABGU national board member. Jan Winkler and Hermine Drezner attended for the first time, participating in their celebratory induction into the Tamar level of the Negev Society. They were also acknowledged for becoming Living Legacy Society members and Founders. Hannah Litvin Cohen ז"ל and Robert Marc Cohen were inducted into the Ben-Gurion Society. Robert Cohen had created the Hannah Litvin Cohen Undergraduate Scholarship Endowment Fund in memory of his wife, Hannah, who was committed to the development of the Negev and Ben-Gurion University.

VISITING BGU

Paul Fischer visited BGU's Marcus Family Campus with Dr. Richard Cuenca, head of the David Posnack Jewish Day School, accompanied by Joel Reinstein. Living Legacy Society members Xuemei He and Ben Golub visited both the Marcus and Sede Boqer



campuses during their July vacation in the Negev. Debra Wagner and her daughter Ariela Wagner visited BGU, accompanied by Marilyn Kaplan, planned giving committee member, and Ed Kaplan, national board member.

SPECIAL RECOGNITION

In June, various members of the community met with Prof. Emeritus Amos Drory, who was interim executive vice president at the time, including Ariela Wagner and Adam Tiktin; Regional Advisory Committee members Joel Reinstein, Rob Colton, Alan Newman, and Billy Joel; and Rachel and Max Javit, funders of the recently launched BGUSAT nanosatellite. Prof. Drory also presented Sharon and David Shine with their Living Legacy, Founders and Negev Society-Eskhol certificates, and Dorothy Polayes with her Negev Society-Arava certificate.

CONGRATULATIONS LEN EPSTEIN

The Greater Florida Region congratulates Leonard J. Epstein, who was elected to the national board at its annual meeting in October. He is also a new member of the region's advisory committee. Len is retired from his 35-year-career operating a computer software business in New Jersey. He serves on the national board of American Friends of Magen David Adom and is a member of the Jewish National Fund's National Task Force



1. Hermine Drezner and Jan Winkler with BGU President Prof. Rivka Carmi (center) 2. Ben Golub and Xuemei He in the Living Legacy Society Garden 3. Marilyn and Ed Kaplan, Ariela and Debra Wagner 4. Paul Fischer (second from the left) visiting BGU's Laboratory for Autonomous Robotics with BGU Vice President and Dean for Research and Development Dan Blumberg (left) and Ph.D. student Oded Yechiel

on Disabilities. He is president of the Sam & Beatrice Epstein Foundation, a new BGU Founder. Len is married to Sherry and has two daughters.

GREATER NEW YORK

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BEN-GURION, EPILOGUE

Thanks to the generous support of AABGU National Board Member Neil Davidowitz and his wife, Doreen, the Larchmont Temple in Westchester County hosted a screening of the film, *Ben-Gurion, Epilogue*. The documentary brought to life the pioneering spirit of David Ben-Gurion and his vision for the development of the Negev and the State of Israel.

Some 150 attendees were treated to an introduction to the film by its director, Yariv Mozer, followed by a stimulating discussion with the former prime minister’s grandson, Alon Ben-Gurion, a member of BGU’s board of governors.

WELCOMING ZIN LEADERS

New York members of the AABGU national board and Zin Fellows Leadership Program came together at a reception graciously hosted by AABGU President Toni Young. The region’s newest Zin alumni, Gary DeBode, John Edelman and Steve Rogers, shared impressions and spoke about the significant impact of the 18-month program and its culminating five-day Israel seminar tour, highlighting the Negev’s contribution in securing Israel’s economic development and addressing Israel’s geo-political challenges.

Each Zin Fellows cohort consists of approximately 20 outstanding individuals, current and future community leaders from across the United States, who are interested in a unique

opportunity to be engaged in the future of Israel through their connection to the Negev region. The Zin Fellows program provides an immersion into the issues involved in the continuing development of the Negev and its unique place in the unfolding evolution of the State of Israel.

BGU INTERNATIONAL ALUMNI

The Greater New York Region hosted 65 attendees for an inspiring panel discussion featuring Ben-Gurion University alumni. The panel, moderated by Andrea Meiseles, Ed.D., director, North American Office for International Academic Affairs at BGU, included three remarkable alumni: Yuri Keum, Dr. Miriam Rahav, M.D. and Marc Ufberg. We heard the captivating stories of how they made their way to BGU and the experience of living and studying at the University.

Yuri Keum, from Seoul, South Korea, studies at the Woodman-Scheller Israel Studies International Program and received her master’s degree there. She currently serves as an archivist intern at the Ben-Gurion Archives on BGU’s Sede Boqer Campus while completing her Ph.D.

Dr. Miriam Rahav attended the Medical School for International Health at BGU. She recounted her fascinating story of international travel and study that led her to pursue a career in integrative medicine. Dr. Rahav has since founded and directs Rahav Wellness, a private practice in New York.

Marc Ufberg graduated from the Honors MBA, Guilford Glazer Faculty of Business and Management. During his studies, Marc met his wife, also a student at BGU, and they have since settled in New York, where he serves as a senior analyst for the New York City mayor’s office.

Each of these alumni came to Israel seeking the exceptional education and experience offered by BGU’s



1. Maks Etingin, Neil Davidowitz, Doreen Davidowitz, Rochelle Etingin
 2. Andrea Goren, Toni Young and Alex Goren
 3. Dr. Andrea Meiseles, Dr. Miriam Rahav, Marc Ufberg, Yuri Keum

remarkable graduate programs, and they continue to be ambassadors for Israel, the Negev and Ben-Gurion University.

GREATER TEXAS

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CHEF CARMELO AND HILARY MAURO VISIT BGU

This well-known Houston chef and restaurateur and his wife—longtime supporters of the region’s annual Gourmet Kosher Extravaganza—took their first tour to the Promised Land with David Breslauer, Stephen Breslauer and Regional Director Deborah Bergeron. They moved from east to west and north to south, with their most extraordinary and memorable moments shared at Ben-Gurion University of the Negev.

BGU President Prof. Rivka Carmi hosted a private dinner for the group, where she enthusiastically told the Mauros of her vision for the future of BGU and the role she hopes they will play in its fulfillment. The next day was nonstop at the Marcus Family Campus in Beer-Sheva, ending with the Ben-Gurion Research Institute for the Study of Israel and Zionism and the Ben-Gurion Archives on the Sede Boqer Campus: Just enough to whet their appetite for a return trip already in the making.



1. Prof. Rivka Carmi with Carmelo and Hilary Mauro 2. Stephen Breslauer enjoying the games during the student evening at BGU’s Board of Governors 3. Deborah Bergeron; Stephen Breslauer; BGU Vice President and Dean for Research and Development Dan Blumberg; Hilary and Carmelo Mauro; David Breslauer 4. During her first visit to BGU, Linda Suib (right) receives kisses from labrador pups being trained by students for service to the blind. 5. Ellen Marcus meets up with a dear friend, BGU Prof. Miri Amit.

MID-ATLANTIC

Connie and Sam Katz
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 Dr. Barry Kayne
Delaware Chapter Chair
 Michele and Robert Levin
Philadelphia Chapter Chairs
 Jeffrey Letwin, Esq.
Pittsburgh Chapter Chair
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PASSING THE GAVEL

At a festive dessert reception hosted by Zin III alumna Julia Savitch and her husband, Jordan, Wayne Woodman, a member of BGU’s board of governors, conducted an inspiring installation ceremony of the region’s new leadership, while recognizing those who have stepped down.

Marla and Dr. Robert Zipkin completed a very successful three-year term



as Philadelphia chapter co-chairs. More than 60 events were held during their term, and they were at the helm of three annual tribute events, each one successful in terms of attendance and contributions. Cumulatively, 612 people were exposed to BGU, and funds raised totaled more than \$9 million in gifts and commitments. Last year, Marla and Rob were themselves honorees at the Footprints in the Negev Tribute Brunch. They are Founders and members of the Asarot Society.

Their successors as co-chairs are Michele and Robert Levin—she, a graduate of Zin I; both have been high-profile leaders of the chapter for the past five years. Passionate about philanthropic endeavors, they focus their efforts on Jewish education and supporting Israel. In 2012, as leaders of the Jewish Federation of Greater Philadelphia (JFGP), they co-chaired the Greater Philadelphia Mega Mission to Israel.

Michele is vice chair of the Jewish Federations of North America’s Negev

1. Marla and Dr. Robert Zipkin 2. Michele and Robert Levin 3. “Getting to Know BGU” was the topic of Wayne Woodman’s presentation at a reception hosted by Reiko and Dr. Barry Kayne, Delaware chapter chair. Pictured are Dr. Barry Kayne, Wayne Woodman and his wife, Lisa Scheller.



Now Initiative and represents JFGP on the Negev Funding Coalition, which she currently chairs. Both committees support projects designed to strengthen the Negev and BGU. She is immediate past president of the board of Jack M. Barrack Hebrew Academy, from which their three children graduated. Rob lends his real estate experience and expertise to the Academy through committee work.

Rob is president and director of operations for a third-generation real estate and management company and is active in several professional groups. Michele, who holds a master’s degree in organizational development and leadership, is a lead consultant at Gestaltworks, a Pennsylvania consulting firm.

The Philadelphia chapter is fortunate to have committed and dedicated leaders who lead by example.

LEARNING FROM THE EXPERTS

Through frequent exposure to BGU faculty, this region keeps its friends well informed of developments at BGU. Prof. Miki Malul addressed AABGU leaders at a lunch and learn, sharing research results as head of the Israeli Center for Third Sector Research in BGU’s Guilford Glazer Faculty of Business and Management.

Director of the Zuckerberg Institute for Water Research Prof. Noam Weisbrod updated donors who have special interest in that field at a breakfast with members of the Moses Feldman Family Foundation, and later at a Rotary luncheon hosted by David Blumenthal. Prof. Emeritus Amos Drory spoke about entrepreneurship in Israel at a lunch and learn hosted by Sylvia Brodsky and, later that day, at a dessert reception at the home of Delaware Chapter Chair Dr. Barry Kayne and his wife, Reiko.

NEW ENGLAND

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BEN-GURION, EPILOGUE

AABGU's New England Region, in conjunction with the National Center for Jewish Film, hosted a screening of a recently unearthed 1968 interview with David Ben-Gurion, featured in the film *Ben-Gurion, Epilogue*. Held in the beautiful Museum of Fine Arts in Boston, the documentary offered a rare and intimate look inside the former Israeli prime minister's mind during the founding of the State, under his tenure as head of government, and during retirement to his modest home in the Negev.

Longtime AABGU national board member Max Schechner and his wife, Marjorie, generously sponsored the evening. Consul General of Israel to New England Yehuda Yaakov welcomed more than 200 people who attended the screening and the thought-provoking conversation with the film's director, Yariv Mozer, and Prof. Ilan Troen, the Harry and Helen Stoll Chair in Israel Studies, emeritus, at Brandeis University and Sam and Anna Lopin Chair of Modern History, emeritus, Ben-Gurion University.

The film was taken from six hours of interview video footage from 1968 and the audio track that was discovered in the depths of BGU's Ben-Gurion Archives. At the time, David Ben-Gurion was removed from all political discourse, which allowed him a hindsight perspective on the Zionist enterprise. His introspective soul searching provides a surprising vision for today's crucial decisions and the future of Israel, and an amazing glimpse into the life of David Ben-Gurion.



1. Director Yariv Mozer and Prof. Ilan Troen discuss the film *Ben-Gurion, Epilogue* at a screening held for the greater Boston community at the Museum of Fine Arts. 2. Terry Rosenberg interacts with one of the robots in BGU's Cognition, Aging and Rehabilitation Laboratory. 3. Prof. Adi Portughies, head of the Ben-Gurion Archives, shares some of the treasures with Terry Rosenberg and Elliot Schildkraut during a recent visit.

INCORPORATE A BGU VISIT INTO YOUR ISRAEL EXPERIENCE

Seeing is believing and the best way to get to know Israel's most innovative university is to spend some time on BGU's campuses in Beer-Sheva or Sede Boqer.

Beer-Sheva is just 90 minutes by car or bus from Jerusalem or Tel Aviv, or you can hop on a 65-minute train ride from Tel Aviv to the Marcus Family Campus in Beer-Sheva. We invite you to come see Israel's oasis of innovation for yourself.

- Visit state-of-the-art laboratories and meet with researchers and faculty members.
- Meet and be inspired by BGU students from throughout Israel and around the world.
- View the University's award-winning desert architecture, community



programs and Beer-Sheva's growing Advanced Technologies Park, adjacent to BGU's Marcus Family Campus.

- Explore the Zuckerberg Institute for Water Research and the Ben-Gurion Archives on the Sede Boqer Campus, and the final resting place of David Ben-Gurion overlooking the stunning Zin Canyon.

Contact Kevin Leopold at kleopold@aabgu.org to organize your visit. All tours must be arranged in advance. Your BGU experience can range from a one-hour walking tour of the campus to a multi-day visit tailored to your interests.

NORTHWEST

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AABGU EXTENDS OUR THOUGHTS AND PRAYERS TO ALL THE COMMUNITIES AND PEOPLE IN CALIFORNIA IMPACTED BY THE DEVASTATING WILDFIRES.

UW/BGU OVERSEAS STUDY FUND ESTABLISHED

Samara Spitzer’s meaningful experience at BGU during her junior year abroad recently inspired her parents, Kathleen and Rob Spitzer, to establish the BGU/UW Overseas Study Program Scholarship Fund.

“We wanted to make it possible for deserving students at the University of Washington to enrich their lives and broaden their perspectives by knowing Israel from the inside,” says Kathleen.

BGU’s Ginsburg-Ingerman Overseas Student Program is uniquely immersive. It is the only university program in Israel where American students live among Israelis in the dorms, fostering greater understanding and lifelong

friendships. Rigorous coursework is taught in English, and students connect to Israel’s diverse population through special trips, as well as for-credit internships helping local communities.

Kathleen adds, “With the abundance of study abroad choices available on every continent, scholarship assistance is a powerful incentive for students to choose Israel over other destinations.”

Thanks to the Spitzers and other community members who support the BGU/UW Overseas Study Program Scholarship Fund, even more University of Washington students can spend a life-changing semester or year at BGU. To make a donation, contact Judith Alterman at (415) 927-2119, or contribute online at www.aabgu.org/donate-BGU-UW

NEW SCULPTURE DONATED

Internationally acclaimed artist Phlyp Koshland has created her second sculpture for Ben-Gurion University. “Lateral Motion” was installed in September in the lobby of the Edgar de Picciotto Family Building of the National Institute for Biotechnology in the Negev. Her first sculpture for BGU graces the Sede Boqer Campus and is titled “Spring.” Originally from the San Francisco Bay Area, Koshland currently resides in Australia and France.

ROBOTS FOR HEALTHY AGING AND REHABILITATION

Dr. Shelly Levy-Tzedek spoke with Seattle-area community members and researchers at the University of Washington about her work developing socially assistive robots for post-stroke rehabilitation. As head of BGU’s Cognition, Aging and Rehabilitation Lab, Dr. Levy-Tzedek and her team study the effects of aging and disease (such as Parkinson’s disease or stroke) on motor control and motor learning. From this research, they design rehabilitation tools and techniques—in particular, robot-based therapy interventions—to support the patient’s recovery in between visits with the physical therapist.



1. AABGU National Board Member Kathleen Spitzer and her husband, Rob, of Mercer Island, Washington
 2. Artist Phlyp Koshland (left) installing her sculpture, “Lateral Motion,” with Olek Muszynski, who manufactured the parts for her. 3. Zvi and Ricki Alon of Los Altos Hills, California at BGU’s 2017 Oasis of Innovation 4. Enjoying a festive evening at the Oasis of Innovation: Prof. Aaron Fait, Polina Bosca of Italy, Riki and Coby Dayan of Los Altos Hills, California

SOUTHWEST

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Campaign Chair
 Philip Gomperts, *Director*
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MENDING BROKEN HEARTS

Dr. Yulia Sapir-Lekhovitser, BGU alumna and chief research scientist at Cresilon Inc., gave a fascinating presentation on her research into creating an algae-based material to mend heart tissue under the direction of Prof. Smadar Cohen in the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering. This well-attended brunch at The Peninsula Beverly Hills was also a most fitting setting for Prof. Emeritus Amos Drory and his wife, Aliza, to reconnect with regional supporters.



UNLOCKING THE SECRETS OF NEUROLOGICAL DISORDERS

Prof. Alon Monsonogo, head of the Neuroimmunology Lab at BGU, was the keynote speaker at a special lunch and learn at The Peninsula Beverly Hills. The following day he flew with Associate Director Andrew Hoffer to Phoenix, Arizona, where he spoke on “Together, Fighting Alzheimer’s Disease” at a well-attended lunch briefing at the University Club of Phoenix. The event was hosted by Herb Roskind and Laura Roskind, co-chair of the trustees of Arizona State University (ASU). BGU and ASU conduct dynamic collaborations spanning multiple research areas.



1. Marlene Kreitenberg, Ben Marandy, Ruth Flinkman-Marandy, Prof. Alon Monsonogo, Jim Zukin, Judge (Ret.) Leon Kaplan 2. Yuval Chiprut (Zin Fellow); Dr. Yulia Sapir-Lekhovitser, Prof. Amos Drory, Rachael Blumberg, Dr. Aliza Drory 3. Carolyn Fried and Ruth Flinkman-Marandy 4. Associate Director Andrew Hoffer, Miriam Raviv, Barak Raviv, Regional Director Philip Gomperts 5. Dr. Alex Parsi, Jenni Cho, Shahin Parsi, Jane Darviche 6. Ron Zlotolow, Judy Bernstein, Miriam Zlotolow, Troy Zlotolow, Jordan Zlotolow, Julia Lee

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DISCOVERING DAVID BEN-GURION

The Washington/Baltimore Region co-sponsored two screenings of *Ben-Gurion, Epilogue* during the Washington Jewish Film Festival in May. The documentary was developed from six hours of lost interview video footage of David Ben-Gurion in 1968. The audio for the interview was unearthed in BGU's Ben-Gurion Archives. BGU Prof. Emeritus Ilan Troen, former Harry and Helen Stoll Chair in Israel Studies, interviewed the director, Yariv Mozer, following both screenings. AABGU is grateful to Scott and Lauren Gilbert for their generosity in supporting the D.C. premiere of the film. More than 300 people attended the screenings in Washington, D.C. and Bethesda, Maryland.

CYBERTECH COMES TO VIRGINIA

As the academic sponsor of CyberTech, Ben-Gurion University is featured prominently at its conferences around the world. CyberTech Fairfax, a thought-provoking conference and exhibition on global cyber threats, solutions, innovations, and technologies, was held in June at Capital One Headquarters in Tysons Corner and attracted some 200 participants from across the region.

DOES THE EARTH BREATHE?

Prof. Noam Weisbrod, director of the Zuckerberg Institute for Water Research, visited Bethesda and



1



2



3

1. Scott Gilbert with *Ben-Gurion, Epilogue* Director Yariv Mozer and BGU Prof. Emeritus Ilan Troen at the D.C. premiere 2. The Himmelfarb family visiting BGU and the lab of Prof. Ronen Segev 3. Prof. Noam Weisbrod with Ilana Subar and Alisa Rank

Baltimore in late July and early August. He presented “Does the Earth Breathe? Greenhouse Gas Emissions, Global Warming and the Water Cycle,” giving a comprehensive overview of the issues surrounding water and why it is of such concern for every community around the world. Thanks to national board member and Zin alumna Ilana Subar for hosting the Baltimore program at her law firm, Whiteford, Taylor & Preston, LLP.

REVERSING TYPE 1 DIABETES

Prof. Eli C. Lewis and Boris Baranovski, a third-year Ph.D. student in the Clinical Islet Laboratory in the Department of Clinical Biochemistry and Pharmacology, presented their research at three different September events in Bethesda, Montgomery Village and Baltimore, Maryland. Using alpha-1 antitrypsin, an immune system protein, Prof. Lewis has successfully reduced or eliminated the need for insulin injections in children newly diagnosed with type 1 diabetes.

He and Boris spoke about their latest clinical study results, as well as new efforts in transplanting islet cells from pigs to humans to reverse the disease. Their presentation in Montgomery Village was hosted by Dr. Olga Charnaya and her husband, David Olson. Olga is an alumna of BGU's Medical School for International Health and was a student of Prof. Lewis. She is now a pediatric nephrologist at Children's Medical Center in Washington, D.C.

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