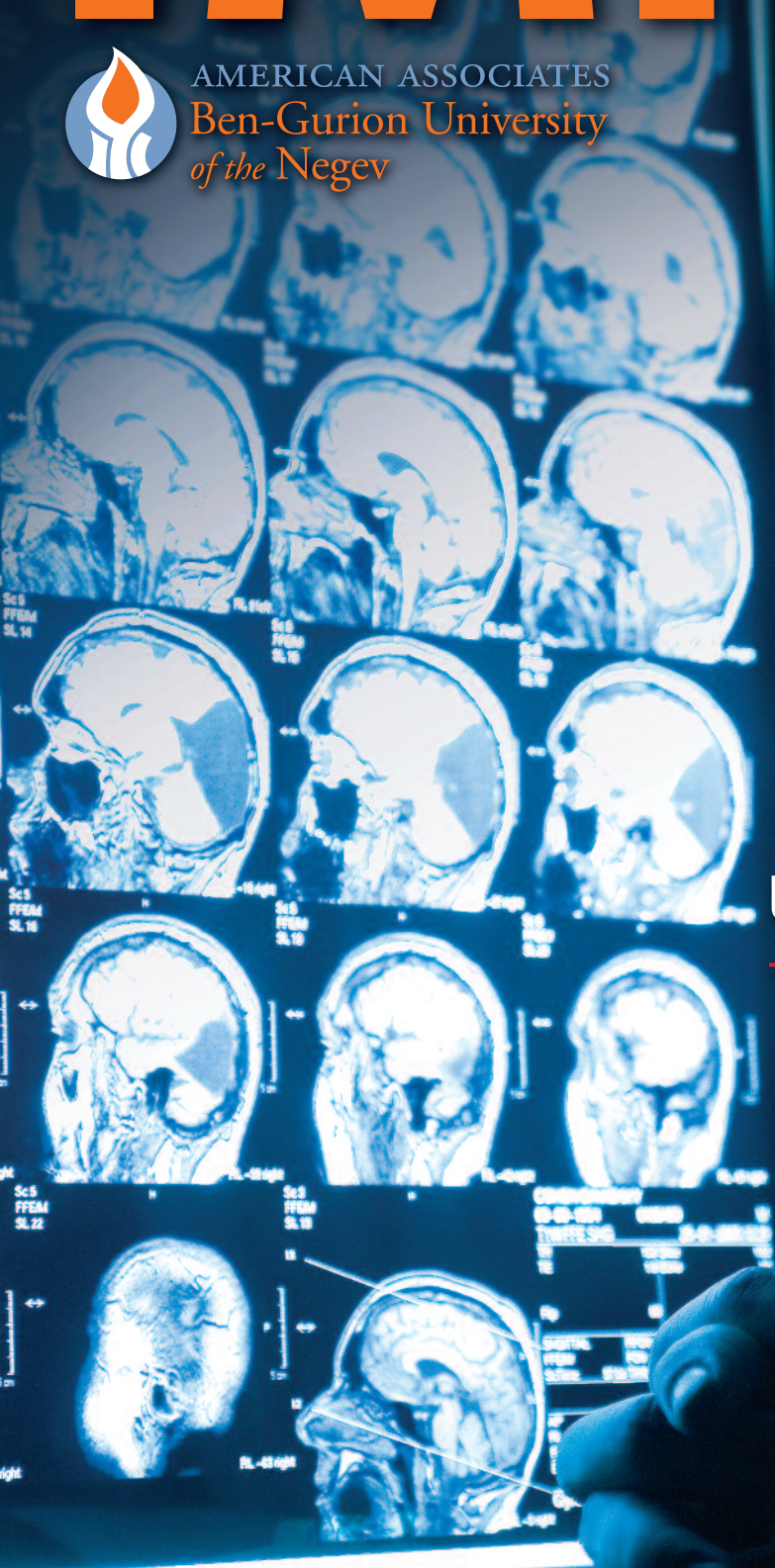


# IMPACT



AMERICAN ASSOCIATES  
Ben-Gurion University  
*of the Negev*

SPRING 2009



## THE HUMAN BRAIN UNLOCKING ITS MYSTERIES

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A LOOK AT  
OPERATION CAST LEAD

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ROBOTS:  
A PROMISING FUTURE

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FROM BGU TO AFRICA

## FROM THE TOP



Dear Friends,

As you know, recent months have been extremely challenging for Israel, for Ben-Gurion University of the Negev, for AABGU, and all who care about Israel and the University.

AABGU was needed in a new way: to support BGU in the emergency situation created by the war in Gaza. Our contributions were critical to providing essential services during the unprecedented wave of missile attacks. I am so proud that we were able to come through, thanks to your support and generosity.

Now BGU is operating normally once again, and while this issue reports on what it was like to live through Operation Cast Lead, and provides a big-picture view by BGU's own middle-eastern expert, Professor Yoram Meital, I am happy that most of these pages cover our remarkable students and faculty. Their accomplishments seem more crucial than ever to Israel's future.

In this issue, you will read about breakthrough research in finding a cure for diabetes, and for understanding the hitherto mysterious human brain. In robotics, too, BGU is forging ahead toward a safer, more comfortable world.

And again, there are inspiring stories about professors and students reaching out, each in his or her own way, to make both the immediate community and the world beyond better for everyone. As always, I invite your comments by writing to [Impact@aabgu.org](mailto:Impact@aabgu.org).

On behalf of the AABGU board and staff, I thank you for sustaining BGU's mission and nurturing the growth of its programs with your continued financial support.

Sincerely,

  
Carol D. Saal, President

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**ON THE COVER:** Dr. Alon Friedman studies the brain with a team of multidisciplinary researchers at BGU's Brain Imaging Research Center. See story on page 14. Photo by Dani Machlis won "best in show" in the monthly image competition of the University Photographers Association of America.

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## AS MISSILES ASSAULT BEER-SHEVA, AABGU LAUNCHES EMERGENCY FUND

**WHEN ISRAEL LAUNCHED** Operation Cast Lead on December 27, 2008, Beer-Sheva and BGU became targets of Chinese-made, long-range Grad missiles. Forced to close the University for nearly three weeks, BGU found itself facing unexpected threats and needs.

“For the first time in 60 years, Beer-Sheva is in range of rockets fired from Gaza and has been hit at least 45 times during this war with Hamas,” explained Carol Saal, AABGU president. “As the American support arm for a renowned institution of higher education, I never imagined that we would be in the business of emergency relief.”

AABGU launched the BGU-Negev Emergency Fund to support critical needs in campus safety and security; distance learning; counseling and psychological assistance; medical equipment; and community services, such as child care. At the time of this writing, some \$4 million has been raised.

Money from this fund has been used to augment the city’s alert system, ensuring that the warning siren

is heard throughout every corner of BGU’s three Beer-Sheva campuses. Additional equipment has been purchased to fight fires and carry out possible rescue operations. Facilities have been adapted to safeguard flammable and combustible materials in laboratories.

Additional security personnel have been hired and trained to manage

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**“As the American support arm for a renowned institution of higher education, I never imagined that we would be in the business of emergency relief.”**

—CAROL SAAL, AABGU PRESIDENT

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the movement of people and equipment in the event of a direct missile strike. Psychological services for students and the community have been dramatically expanded.

An advanced communications system

has been purchased and installed to facilitate immediate contact with all members of the University community, and on-site shelters and underground tunnels have been enhanced to provide better protection and comfort.

Classes have resumed and Beer-Sheva is once again a thriving city of 200,000. But one thing will never change: We now know that BGU is a strategic target and we must be diligent in protecting our BGU family.

Currently, we are helping the University expand its distance learning opportunities, enabling students to continue elements of their studies online if the University faces closure again. And we will be providing financial assistance to cover the costs of an extended semester to make up for lost time, and special sessions and tutorials for students still serving in the military. A scholarship/financial aid fund has been established for students who lost their jobs or were unable to work due to closed businesses or military service.

The AABGU board and staff are grateful to all friends and supporters who have opened their wallets and their hearts, providing financial and emotional support during this difficult time. ■

### YORAM MEITAL

*is a professor in BGU’s Department of Middle East Studies and chair of the Chaim Herzog Center for Middle East Studies and Diplomacy. An authority on the region’s conflicts, he is the author of Peace in Tatters: Israel, the Palestinians and the Middle East, analyzing what went wrong in peace initiatives during the critical years of 2000-2004; and Egypt’s Struggle for Peace: Continuity and Change, 1967-1977. Prof. Meital was*



Prof. Yoram Meital

## ANALYZING OPERATION CAST LEAD: AN INTERVIEW WITH YORAM MEITAL

*interviewed by Impact two weeks after Operation Cast Lead ended and one week prior to Israeli elections.*

### WHAT WERE THE GOALS OF OPERATION CAST LEAD, THE RECENT WAR IN GAZA?

The main Israeli objective was to create a new situation in the southern part of Israel, bordering the Gaza Strip. First and foremost this meant stopping the rocket fire from Gaza into Israeli territory. A second objective—which

was not so clear, but many signs showed that it was also an objective—was to harm Hamas as a movement and to dismantle its ability to govern the Gaza Strip. Third was to set a new Israeli price tag, from the military or security point of view. Many believe that Israel actually lost the second war in Lebanon, so from the Israeli viewpoint, this recent war in Gaza was a major challenge or test of Israel’s ability to deter its enemies.

*Continued on Page 4*

## AN INTERVIEW WITH YORAM MEITAL *Continued*

The Hamas point of view was completely different. Before the strike by Israel, their objective was to create a new situation in the south by using the movement's military ability, launching missiles into Israel. They wanted to change the balance of power with Israel by not extending the cease-fire. They believed this might escalate the situation and that this would help them promote their two basic aims: to end the siege imposed on Gaza since early 2006, and to strengthen Hamas's governing in Gaza.

When Israel opened the military campaign, the name of the game for Hamas became survival. They believed if they survived the attack they would win the war, and promote their basic aims in the current conflict with Israel.

**DO YOU THINK HAMAS EXPECTED THE ATTACK?** Like many in and out of Israel, they were surprised by the forceful response and that Israel's decision-makers did not stop even when there were many civilian casualties, and that even infrastructures were hurt or demolished during air bombing and movements. Hamas no doubt suffered a heavy blow from this military campaign. Nevertheless, the question of who won the war is still very much an open one.

**HOW WELL DO YOU THINK ISRAEL'S OBJECTIVES WERE MET?** There is no doubt that Israel was able to stop—at least for the short term—the massive rocket launching into Israel. It seems that Israel's deterrence against its enemy was also strengthened. Nevertheless, apart from this security and military perspective, Israel failed to achieve a complete dismantling of Hamas's ability to govern the Gaza Strip, and it's hard to say that a completely new situation has been created in the southern part of Israel. Many believe this objective could not have been achieved at all.

**WHAT DO MOST ISRAELIS THINK HAS RESULTED?** The general mood in Israel is that this military campaign did not achieve its utmost objectives, and that the political leadership left the war unfinished. In the days after the campaign ended, the general feeling was frustration with the lost opportunity. To my mind as an expert on Arab-Israeli conflict, in general, these expectations were not realistic from the beginning. They ignore the fact that we're dealing basically with Hamas not only as a military organization, but first and foremost, a political-social movement that gained the support of a large sector of Palestinian society. Therefore, adopting a policy of only using force against Hamas seems to me just a recipe for a continuation of violence. I think what is needed is a completely different approach by both parties, Palestinians and Israelis.

**HOW DO YOU THINK THE SITUATION STANDS NOW?** I would say that today, the Israeli and Palestinian societies are on the brink of a chasm. It is difficult to assume they and their leaders will be saved from falling into it by their own power without the intensive aid of other regional and international parties.

**DO YOU EXPECT THE NEW ADMINISTRATION IN WASHINGTON TO PLAY A MAJOR ROLE?** Of course all eyes are aimed at President Barak Obama. His statement before the State Department just two days after his inauguration was a straightforward commitment of his administration to accelerate U.S. involvement in the search for stability and peace between Israel and the Palestinians. Appointing George Mitchell as special envoy is also a sign of renewing this commitment—to change the previous policy of the U.S., which was characterized by a sit-and-do-nothing quality. Nevertheless, a close reading of Obama's statement, and Secretary of State Hillary Clinton's,

shows very little thinking outside the box about how to get out of the mess we're in now.

The huge problem on the economic level, the war in Iraq, and the efforts to dismantle militant Islamic groups based in Afghanistan will most probably take much of the Obama administration's energy.

**HOW HAS THE WAR AFFECTED ISRAEL'S POLITICAL CLIMATE?** The whole war in Gaza has taken place in context of the political struggle in Israel. Yes, Hamas absolutely contributed its share to escalation. At the same time the decision to take such severe measures a month before general elections can't be overlooked by anyone. One outcome of this, I would say, was that at one end, the right wing camp in Israel was absolutely strengthened. No doubt, the next government will be much more to the right than the center.

**WHAT DO YOU THINK WILL HAPPEN NOW?** The big question is who can save Israel and the Palestinians from falling into a big chasm?

The public discourse by both Israel and Palestinians is one expression of the problematic situation. Right now pessimism is the language of both sides, especially in the high echelons of decision-makers.

**HOW ARE OTHER COUNTRIES IN THE REGION BEING AFFECTED?** In the case of Egypt, the growing gap between the leaders and general public opinion is clear. While the latter is pushing hard on the government to give a strong hand and help to the Palestinians, the government, led by President Mubarak, finds itself in a very difficult situation: trying to promote the view that Hamas's control of Gaza threatens Egypt's national security, while seeing the war and use of force by Israel as a danger to the stability of Egypt and the region as a whole.

*Continued*

It's similar but more minor in Jordan. If you examine the Arab political discourse, you could certainly say we are living in a low ebb gap between Arab leadership and public opinion in general. Many in the region see the Israeli-Hamas war as a microcosm of the growing tensions between the regimes and Arab public opinion. It's especially difficult for those who are allies of the U.S. and the Arab countries that have borders with Israel—Egypt and Jordan are in the most difficult situations here.

**AND THE IMPACT OF WORLD PUBLIC OPINION?** I think in general Israel's policy can't in the long term ignore external public opinion, especially in Arab societies.

**WHERE DO YOU SEE THE BEST HOPE FOR THE FUTURE?** The whole issue of solving the Israeli-Palestinian conflict needs more regional mechanisms, not a focus on bilateral agreements. The two sides have discussed the peace process for 15 years, unsuccessfully—I believe that adopting a regional

perspective, and international support, would create better results. More specifically, I would urge Israel and the U.S. to seriously reconsider the Arab peace initiative (adopted by the Arab League in March 2002) as a framework to stop the current dangerous crisis between Israel and the Palestinians.

To date, most Israelis and Palestinians do not see the tragic results of the current situation. This is one of the more difficult times in the history of the State of Israel—and for a future Palestine. ■

## LOOKING AHEAD

BY DORON KRAKOW  
EXECUTIVE VICE PRESIDENT



**DURING THE WEEKS** in which this edition of *Impact* was assembled, a new government coalition in Israel was being formed. The February 10th elections appear to have given a strong mandate to a center-right coalition, reflecting the country's heightened concern about a prolonged and sustained confrontation with Islamic fundamentalism as embodied by Hamas, Hezbollah and their patron state Iran. Clearly, once again, security issues will dominate the headlines.

Too often, in the past, Israel's focus on these issues has diverted critical attention and resources from urgent matters on the domestic agenda. This cannot be an either-or proposition.

Ben-Gurion University of the Negev has been called the gateway to the development of the southern half of Israel. Its students and faculty were hailed as "Israel's oil wells that never run dry" by *New York Times* columnist Thomas Friedman.

Thousands of BGU graduates pour into the labor market each year. BGU has created a hot house of start-up businesses and has partnered with the city of Beer-Sheva and KUD International, subsidiary to one of the world's largest construction firms, to build an Advanced Technologies Park,

which will provide 10 million square feet of high-tech commercial real estate space adjacent to the Marcus Family Campus.

The University's Community Action Unit facilitates student volunteer programs in Beer-Sheva and across the communities of the central Negev. The Robert H. Arnow Center for Bedouin Studies and Development has helped to facilitate a more than 10-fold increase in the number of Bedouin students matriculating at the University each year.

But even a world-class university with a mandate for regional development can't do it alone. Israel's new government must contend with the urgent need to invest in its institutions of higher education. Under the previous government, state funding of the university system was reduced nearly 20 percent, resulting in fewer faculty positions for a growing number of students and leading many of Israel's brightest minds to seek academic appointments abroad.

The Bedouin community in the Negev is among the fastest naturally growing in the world. While more Bedouin are increasingly engaged in Israeli society, too many have been alienated by an absence of adequate attention to systemic needs in the community. If the new coalition fails to make this issue a

priority, there is a growing risk that the Bedouin community will be drawn closer to the more fundamentalist influences infiltrating the region.

Until earlier this year, Beer-Sheva seemed safe from missile strikes and insulated from the possibility of war. This illusion has been shattered. Ben-Gurion University now knows first-hand the precarious nature of peace and security in Israel.

The new government must safeguard its citizenry—but it must not fail to also safeguard its society. With our many concerns as a backdrop, we look to Israel's new prime minister and its new administration to light the way to a brighter future. ■

# BGU AND PRIMAFUEL SIGN EXCLUSIVE LICENSING AGREEMENT FOR ALGAE-BASED RENEWABLE FUELS

## BEN-GURION UNIVERSITY OF THE NEGEV

has announced a multi-year, multi-million dollar technology-licensing and development agreement with Primafuel, Inc., a California-based company that develops renewable fuels. The collaboration focuses on developing algae bio-refinery technologies for renewable fuels and high value co-products production.

The technology was developed by Professor Sammy Boussiba and BGU colleagues at the Landau Family Microalgal Biotechnology Laboratory (MBL) at BGU's Jacob Blaustein Institutes for Desert Research.

The integrated development team combines the University's decades of microalgae expertise with Primafuel's proprietary bio-refinery technologies. Prof. Boussiba, an internationally recognized expert in algae research and genetic engineering, heads the MBL, working with more than two dozen scientists, researchers and engineers.

BGU has successfully commercialized algae production systems for the



Prof. Boussiba's photobioreactor technology at Kibbutz Ketura where algae is grown for export

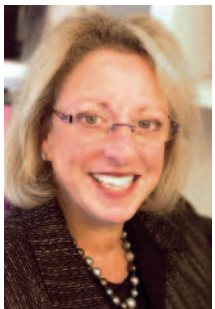
feed and pharmacological markets, and has also developed one of the world's largest production photobioreactor systems at Kibbutz Ketura near Eilat. Photobioreactors are large networks of transparent tubes filled with water to cultivate algae.

"This is an exceptional opportunity," explains Boussiba. "People are surprised that we can cultivate algae

in the desert, but it's actually a green environment for growing algae. We have lots of brackish water and sunshine."

Boussiba has been working on the scientific challenges of turning algae into fuel since the mid 1980s, when the U.S. Department of Energy assigned the lab a project to evaluate microalgae as a source of lipids. ■

# AABGU INTRODUCES NEW NATIONAL STAFF



Harriet Winer



Gabriel Most

provides donor development expertise to the organization's leadership and regional office directors.

Gabriel Most joins the organization as director of programs and special events, a role recently vacated by Lea Golan, who served AABGU with great dedication for nine years.

Harriet joined AABGU with more than 25 years of development, management and communications experience. Most recently, she ran her own consulting firm, advising nonprofit groups on how to maximize their income potential through campaign planning and implementation, prospecting and feasibility studies.

Previously, Harriet was vice president of leadership for Hebrew College; director of development at the Whitehead Institute for Biomedical Research; and executive director of Brandeis University National Women's Committee.

Most recently, Gabe was the director of strategic initiatives in the Global Operations Division at United Jewish Communities (UJC) in New York. He was a consultant to North American Jewish federations around their funding of projects in Israel and abroad, and developed educational seminars and study missions for lay leaders and professionals. *Continued*

Gabe previously served as the director of Israel Programs for Young Judaea, where he directed the development of the largest Israel experience operation in North America. He has lived and worked in Israel

and is a fluent Hebrew speaker. Gabe began his tenure with AABGU at the end of January.

“I am delighted to welcome these two extraordinary and talented individuals to the AABGU team,” said

Doron Krakow, AABGU executive vice president. “Together, with a strong and passionate staff and board, we are strengthening our organization to meet today’s challenges and prepare for tomorrow’s promises.” ■

## HAPPY ANNIVERSARY: BGU’S UNIQUE MEDICAL SCHOOL FOR INTERNATIONAL HEALTH MARKS ITS FIRST DECADE

**IN 1998**, after a year of collaborative planning between Columbia University Medical Center and BGU’s Faculty of Health Sciences, an unusual idea was realized: a new medical school that required all students to study international and cross-cultural medicine.

“That little word ‘required’ was very important,” notes Professor Carmi Margolis, who was founding dean of the Medical School for International Health (MSIH). “To the present day, there is no other medical school we know of where cultural and global health is a required medical subject. Here it’s part of all four years.”

The concept originated with Dr. Herbert Pardes of the Columbia University Medical Center (now chief executive officer of New York Presbyterian Hospital). “He had a vision which proved to be very, very correct,” Margolis says. “He saw that with the increasing multicultural nature of any big city in the U.S. or the world, physicians would have to learn how to deal with patients from outside cultures that may be extremely different from their own.”

While MSIH also trains students in tropical medicine, geographically related disease, medical anthropology and a range of specialties, the program’s hub is cross-cultural medicine and communication. Study culminates with a two-month internship in a developing country such as Ethiopia, India or Peru.

MSIH is based on the American four-year model (other Israeli medical



MSIH student Susan Kovsky in Ethiopia during her two-month internship.

schools require seven years) and all classes are taught in English. It’s open to non-Israelis only. (Israelis enroll in BGU’s Joyce and Irving Goldman Medical School.) About 70 percent of students are American citizens or permanent residents, but in many cases they are first generation Americans, Margolis says. Typically, class members may speak 20 different languages.

Still operated in collaboration with Columbia, MSIH today is generating “enormous interest in cross-cultural medical training and how we do it,” Margolis says. He and his colleagues are frequently called on to present, and last September were instrumental in organizing a prestigious Rockefeller Foundation Bellagio Center Confer-

ence on global health education.

Most graduates are still moving through their residencies, but Margolis sees a number of program success indicators. A surprising number of graduates secure quality residencies, and across the spectrum of medical specialties, many have become chief residents.

He is gratified, too, that close to 50 percent of graduates choose primary care or family medicine residencies, and most of all, that they take what they learned at MSIH wherever they go. “We see a lot of signs that they carry the message of how to work with different cultures into their residencies or work. They’re using those skills, and modeling them for others.” ■

**GUILFORD GLAZER'S** commitment to Israel, and to Ben-Gurion University, began before either officially existed.

After studying mechanical engineering and serving in the United States Navy during World War II, Glazer returned to his hometown of Knoxville, Tennessee at the age of 24. He began turning the small welding business established by his father into the quickly growing Glazer Steel Corp., providing fabricated steel all over the U.S. and in Western Europe.

In late 1945, Guilford's mother was asked to house "some Jewish boys who were on a secret mission"—they were seeking military equipment for the nation-to-be. "I joined with these men," Guilford says. "I was deeply interested in Israel and in doing whatever I could to help."

In 1950, Guilford accompanied a delegation of Israelis on a tour of the Tennessee Valley Authority and Oak Ridge where atomic bombs were built and reactors were being designed. The party included David Ben-Gurion, his wife Paula, a young Golda Meir, and Ben-Gurion's assistant, Teddy Kollek, who later became mayor of Jerusalem.

"He was an absolutely marvelous man," Glazer says of Ben-Gurion, "as well as a brilliant prime minister. He worked so very hard, from sun-up to sunset. He had a great sense of humor. We became very close on that trip and afterward."

In fact, Ben-Gurion asked Glazer to come with him and live in Israel, but he replied, "I can do more for Israel here."

Beyond giving financial support, Glazer leveraged his top-level connections with political leaders, including Congressman Al Gore, Sr., and Senator Estes Kefauver, to press the British into allowing Jewish World War II survivors to immigrate to Israel.

Later in the 1980s, when some politicians were criticizing U.S. aid to Israel, Glazer initiated and financed a RAND Corp. study. "With the backing of President Ronald Reagan, I was



DIANE AND GUILFORD GLAZER  
LOS ANGELES, CA

## BUILDING A NATION AND A UNIVERSITY

able to show that the value of what Israel did for America in the cold war was many times larger than what America did for Israel. This study changed the dynamics of U.S. military aid to Israel."

Glazer expanded his business, and in 1960 moved his headquarters to Beverly Hills, California. There he met and married Diane Pregerson, an attorney who was counsel for Columbia Pictures at the time. The Glazers visited Ben-Gurion several times in Israel and Ben-Gurion came to Los Angeles and spent time there with the Glazers.

"The University was barely a thought then, but Ben-Gurion took me on a tour of the Negev," Glazer says. "Did I think there'd be a big university there? Never in a million years, but Ben-Gurion knew that a great university in the Negev, creating all kinds of jobs from political science to medical to engineering, would make a great state.

"The University is now an outstanding institution," Glazer says, "a credit to Ben-Gurion and all who built it so successfully. If Ben-Gurion were alive, he would say the University is among Israel's most outstanding achievements."

In 2007, the Glazers named the Guilford Glazer School of Business and Management housed in the Diane and Guilford Glazer Building on the Marcus Family Campus. "What Diane and I wanted to do was send a message that the University was everything David Ben-Gurion said it was and a lot more," Guilford says. "And it's a miracle—a magnificent educational institution with some of the world's most outstanding scholars and teachers. Key Israeli figures are being regularly produced by the University."

The Glazer School currently enrolls more than 2,000 students on the undergraduate, graduate and doctoral levels. It also operates a unique Bedouin Managerial Training Program, reflecting a priority of the Glazers.

"One of our goals is to educate the Bedouins," Diane explains. "The University promotes the teaching of business and many other key subjects to Bedouins."

"It is very much in Israel's interest for the Bedouins and all Arabs to be self-supporting," Guilford says. "If the Arabs are prosperous, they will be good neighbors."

Diane Glazer uses her professional skills to promote international understanding. As host of the "Diane Glazer Show," a popular cable TV program, she has interviewed more than 500 intellectual and world leaders over the years. They include every Israeli prime minister as well as Arab leaders, U.S. cabinet members and dignitaries from across the globe.

In addition to maintaining friendships with nearly every Israeli prime minister, Diane and Guilford have also been involved in activities in other countries. Guilford organized Israel's aid to Armenia in 1988, following a devastating earthquake. This advanced Russian-Israeli diplomatic relations. Last year at their own expense, the Glazers provided 95 tons of medicine and special food to China in the earthquake area.

*Continued on page 31*



**ELLIS AND PAUL GOODMAN** are not just father and son. They are partners in business, in social and environmental awareness, and in their support, leadership and passion for Ben-Gurion University. Originally from England, the Goodmans relocated to the United States in 1982.

When Ellis Goodman first heard about BGU in the mid-1990s he became a donor, but it was a 2004 visit to the Jacob Blaustein Institutes for Desert Research on the Sede Boqer campus that really ignited his enthusiasm.

“I was blown away,” he recalls. “I was intrigued with the work, had interesting discussions with the professors, and saw that it melded right into what our family cares about—we’re committed to environmental issues.”

Ellis was chairman and chief executive officer of Barton, Inc. (an alcohol beverage importing company) until selling the company in 1993, and now chairs a Chicago real estate development firm, Allied District Properties.

His family’s consuming interest in environmental causes extends to his wife Gillian, long a devotee of organic farming, and daughter Sara, who formerly directed a fair trade organization, and now lives in Paris and consults on sustainability. Paul re-develops environmentally impaired real estate (brownfields) and also works for Allied District Properties.

“We’re doing all we can personally,” Ellis says. “And I want to support an organization that is at the cutting edge of technologies and the expansion of knowledge that will deal with one of the major threats to the planet—desertification.

“BGU is ahead of everyone in this area and seems to be doing things I haven’t heard of anywhere else. With its breakthrough scientific work on the desert, river pollution, water treatment, and much more, I think BGU will help developing countries solve these problems.”



**ELLIS AND PAUL GOODMAN**  
CHICAGO, IL

## IN TUNE WITH BGU’S GREEN MISSION

The Goodmans contribute to the Zuckerberg Institute for Water Research and to the Albert Katz International School for Desert Studies, helping post-graduate students with scholarships. Ellis enjoys the letters the students write. “It’s gratifying to read them; they give a face to the support we give.” He appreciates, too, the diversity of students who come from around the world to study at BGU’s Albert Katz School.

In addition to his business activities, Ellis is an author. He recently published a novel called *Bear Any Burden*, which he describes as an espionage thriller covering 90 years of Jewish history from Poland to the cold war in 1983 ([www.bear-anyburden.com](http://www.bear-anyburden.com)). And in 1996 he was invested as a Commander of the British Empire, by HM Queen Elizabeth, for his service to British exports.

Paul Goodman, Ellis’s son, says he has always been passionate about environmental stewardship and natural resources. He studied environmental management in college, did related internships, and a field-biology stint in Costa Rica. Returning to Chicago,

he became involved in the city’s brownfields program, redeveloping contaminated industrial sites.

“I knew Dad was supporting BGU for a number of years,” he says, “and through the Great Lakes Region of AABGU I got more and more involved in what the University does. I’m especially interested in the advances being made in renewable energy, algae, green architecture, and the permaculture concept—taking waste products from one system, and using them for another.”

In fact, he is working to put some of these concepts into practice in a very different environment, a farm the family owns in Wisconsin. Partnering with local farmers, the Goodmans will grow organic fruits and vegetables and also keep a small number of livestock.

“The idea is to embrace the whole idea of permaculture,” Paul explains. “Instead of growing two or three monoculture crops, we’ll do a plethora of crops and flowers, and harvest sustainable wood. And, we hope to have a learning center.” A windmill and geothermal system are also on the horizon.

Paul spends many of his weekends working at the farm. He also finds time to actively support the University as a new member of the AABGU board, and anticipates with excitement his first trip to BGU in March.

How does he think a sense of personal commitment can be nurtured among the younger generations?

Paul remembers that community service was mandated in the school he attended in England. He thinks that should be the case everywhere. “Kids should learn the importance of community, giving back, whether locally or nationally, and they should pick up a cause to believe in at an early age.” ■

**Photo:** The Goodmans at their farm in Wisconsin. At top, Ellis and wife Gillian; below, Paul and his sister Sara.

**MARTIN BLACKMAN** well remembers his first involvement with BGU. It was back in the 1960s, and one of his law firm's clients was Bob Arnow, a past AABGU president, BGU board of governors' chair, and founder of the Robert H. Arnow Center for Bedouin Studies and Development.

"Bob was a very accomplished fund-raiser and arm twister," Marty recounts. "He managed to twist my arm to make a contribution and then to join the board. I've seen the University grow into a first-rate educational institution, and it's been a very satisfying experience."

Today, Marty practices business law with the New York City firm Bergreen and Bergreen. He is president of the Skirball Foundation, a major philanthropic organization whose mission includes improving education and advancing medical research in the clinical fields. Marty is also a director of Los Angeles' Skirball Cultural Center, the largest Jewish community center and museum in the world.

Both the Skirball Foundation and Marty personally, with his wife Rena, strongly support BGU's Center for Advanced Studies in Mathematics. The Center promotes research and helps both doctoral students and gifted high school students pursue their studies. "Obviously, math and the sciences are extremely vital for the progress of the world and, of course, for Israel," he observes, "and this is an exciting program. It works with exceptional students and they are becoming world class mathematicians."



MARTIN BLACKMAN  
NEW YORK, NY

## NURTURING PROGRESS IN MATH AND MEDICINE

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"Our grants to BGU reflect that we think it is a special place and plays a special role in Israel."

— MARTIN BLACKMAN

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Marty and the Foundation are also enthusiastic supporters of BGU medical research programs, such as the Brain Imaging Research Center. The Foundation is highly selective in its grant-making, he notes, and looks for organizations that will "cause

something to be done that otherwise would not be done, where there's a real need. So we try to ascertain a medical need, then look for an institution that has a strong track record in that area and where the program is under the leadership of a particularly accomplished person in that field. Our grants to BGU reflect that we think it is a special place and plays a special role in Israel."

Marty has found his visits to BGU to be most instructive and rewarding. Over the years he has delighted in its growth as more schools, departments, students, and buildings have been added. As a long-term AABGU board member, his commitment is more than monetary. Currently he serves as a vice president. "It's satisfying to work for the University, especially being Jewish. It's something that helps the development of Israel," he says.

"BGU is a major force in the development of the Negev—so important to Israel's future because it's not completely developed yet and has room for more population."

Marty is very clear on why giving is important: "I think it's a contribution to our own self worth. If your whole life is not devoted just to a personal career, making a living, it certainly makes you a happier person with a much better feeling about yourself.

"We need to acknowledge the good fortune we have and find a way to give back to society in a way that we think makes a significant contribution." ■

# HANAN RIBO

## CONNECTING WITH IMMIGRANTS

**FOURTH-YEAR STUDENT HANAN RIBO** feels a strong connection to the older Ethiopian immigrants he is teaching through BGU's Community Action Unit's Kidma project.

Hanan is one of 10 Kidma instructors, all of them students, who help older immigrants navigate daily life in Israel through courses in Hebrew, English, biology, math and computers. Classes are held on the Marcus Family

Campus.

Now in the last year of his undergraduate degree in electrical and computer engineering, the 29-year-old teaches English twice a week as part of his qualification for a scholarship. He is Orthodox and wears a kipa, which he says may help him connect to his students, mostly observant men aged 30 to 60. He has

also picked up a few phrases in Amharic.

Ethiopians in Israel number about 100,500. While other immigrants also struggle, Hanan explains, some groups like the Russians were better educated and in general adjusted faster to their new country than the Ethiopians, who were settled in isolated areas and found it difficult to integrate with Israeli society.

It's a familiar story for him. "When I was growing up, there wasn't a gap between my parents and me in terms of language and advancement," says Hanan. "But my grandparents had emigrated from Morocco, and between my parents and their parents, there was the same exact experience."

Hanan found that the Ethiopians, before moving to Israel, had a clearly defined hierarchy in the house. "But now this has been totally overturned ... I had one student who brought his son to the class, and the son spoke and understood Hebrew better than he did. When I called the house the son would translate. And so even without living with them, you can sense that the father depends on his son. This is something that no father wants to feel."

Of Hanan's dozen students last year, four took and passed the Ministry of Education's 10-year education equivalency test, which makes them eligible for some jobs and opens the door to other programs granting high school equivalency certificates. Others dropped out, however, because the course was too difficult. When one man in his late 40s stopped attending class, Hanan called him personally and coaxed him into returning.

"He came back, and he participated, and after nearly every lesson he would tell me 'Hanan, I love you,' and it

really touched my heart," Hanan relates. "With the Ethiopians there's a real meaning to respect and to the relationship between people."

Because Beer-Sheva is home to many poor residents in addition to the Ethiopians, it may be an easier place for the immigrants to live than other Israeli cities, Hanan thinks: "Tel Aviv is a city with quite a lot of alienation, and explicit class differences. In Beer-Sheva, people are more aware of the gaps that need to be closed among its residents."

He is happy that BGU is part of that process.

"The University isn't only concerned with educating its students, but also the population living around it," he says. "For example, there are lessons here for high school students, for youth at risk and other groups. And Kidma is a part of that." ■

# RAWIA ABURABIA

## DRIVEN TO HELP OTHERS SUCCEED

**BGU ALUMNA RAWIA ABURABIA** is a lawyer, social worker and human rights activist – and she's just getting started.

At 28, her list of accomplishments would make her extraordinary at any age.

While studying for her degree at BGU's Charlotte B. and Jack J. Spitzer Department of Social Work, Rawia was a founding member of Mutaka-Mifgash, a Beer-Sheva cultural center for joint Jewish and Arab activities.

She also directed YEDID, a community empowerment association; coordinated PERACH's social program for Bedouin children at BGU; and worked alongside Jewish and Arab professors at Dukium, the Negev Coexistence Forum for Civil Equality. Not to mention her work as a language teacher (she speaks English, Arabic and Hebrew fluently), research assistant and more.

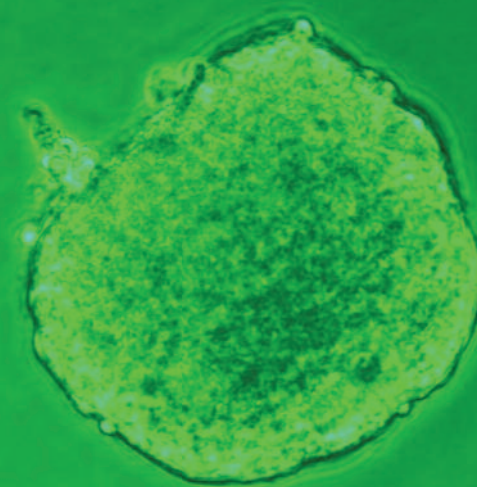
After earning her degree in 2003, Rawia—an Israeli Bedouin raised in Beer-Sheva—picked up a law degree and worked briefly for a law firm, and then a social work agency. She also became a widely known spokesperson and moderator on behalf of an integrated Israeli society and women's empowerment. She became a member of the international board of The Abraham Fund, a nonpartisan organization that works to advance equality and cooperation among Israel's Jewish and Arab citizens.

Last year, Rawia was chosen as a New Israel Fund Fellow to participate in the U.S.-Israel Civil Liberties Law

*Continued on page 31*



# CURING DIABETES: BREAKTHROUGH RESEARCH



A pancreatic islet

**THE WORLD HEALTH ORGANIZATION** calls it a global epidemic. It estimates that 180 million people worldwide have diabetes, and that the number will probably double by 2030. In the United States, 24 million people—including 25 percent of those 60 and older—suffer from it.

Worse yet, diabetes has been cure-resistant and even treatment-resistant. The most rigorous self-monitoring and medication can fail to control glucose levels. Serious damage to the body's systems, and even death, can result.

In the medical community, one major hope has been to transplant pancreatic islets from deceased donors into diabetic patients. Islets are small cellular clumps that hold the only cells that make insulin, a hormone that helps remove glucose from our blood system. Successful transplants enable recipients to produce insulin naturally and tightly control their blood glucose levels.

But recent studies show that in 80 percent of cases, transplanted islets survive less than five years and the transplant recipients return to regular insulin injections. Now a discovery made at BGU promises to transform this gloomy outlook.

Dr. Eli C. Lewis, director of the Clinical Islet Laboratory of the

Department of Clinical Biochemistry, has shown that a common, safe molecule called alpha-1-antitrypsin (AAT) can reduce inflammation provoked by introducing the donor islets, and that this appears to circumvent the body's



Dr. Eli Lewis (center) and two MSIH students checking glucose levels in a mouse

attack response in a long-term fashion.

“Our studies are so positive that they will bring the transplant programs and belief in the technique back to life,” Dr. Lewis comments. “Transplantation of healthy islets appears to be the only absolute way for us to completely restore glucose levels in the blood of a diabetic patient.”

Research by the team Lewis led was published in the October 21, 2008 *Proceedings of the National Academy of Sciences*. It ran back to back with a supporting article based on research at Boston's Transplant Center at Beth Israel Deaconess Medical Center. Working with mice, like Lewis's team, the Harvard group experimented with using AAT to halt islet destruction at disease onset. The combined results are generating strong interest in the medical community.

In light of the impressive safety record of the drug that has been used for over two decades for other indications, the Federal Drug Administration has already approved clinical trials for Lewis's AAT therapy.

AAT is a molecule naturally produced in the human liver to fight inflammation. A commercially available version, made from human plasma, has been used for two decades as an injection therapy for people who lack the protective substance. It is also used as an inhaler for people with cystic fibrosis, thanks to a recent invention by an Israeli company, Kamada Ltd.

An enormous amount of wide-ranging research has been done on preventing rejection of grafts and transplants, Lewis explains, but the

currently available drugs can't be used to treat diabetics: "The typical immune suppressive therapy that is provided, for example, during kidney transplantation, actually causes drug-induced diabetes in one out of five transplant patients. So we were forced to find a very original approach."

When Lewis began the studies in 2003, it was AAT's track record that drew his interest. "It's been widely used since the early 1980s and studies show it's safe and non-toxic," he explains.

The idea that inflammation could be an important factor in transplant rejection was far from obvious. Lewis suspected a connection because of his unique background with both transplant immunology and inflammation.

"Most scientific studies focus on the role of T-cells [T-lymphocytes] because they rapidly and effectively invade and attack the graft," he says. "Nobody had reason to appreciate the importance of inflammation until our study. It was never considered a determinant, and it was up to us to prove that the degree of inflammation plays a detrimental role in how the T-cells respond."

The body is constantly presented with foreign material, Lewis says, from a thorn to a scratch or bacteria. "It must distinguish between an authentic threat and a non-damaging event. The way it seems to do this is by assessing the degree of inflammation. The body interprets a highly inflamed environment as worth attacking.

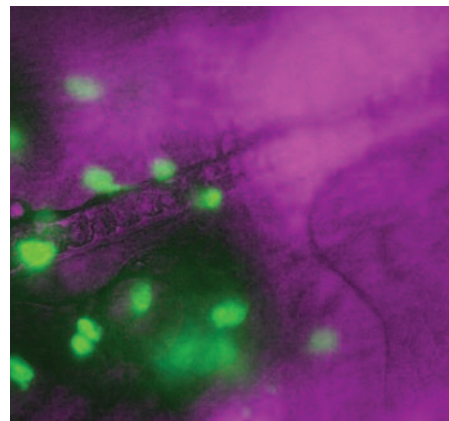
"So it looks like we found the link. Blocking the inflammation fools the immune system to think that it was presented with material from a tissue worth preserving. By introducing an islet graft without inflammation, it's almost like we're mimicking a non-damaging event that doesn't pose a threat."

In fact, the researchers found evidence that AAT induces a response in the body to protect the graft. One of the most exciting lab moments, Lewis says, came when he looked at islet grafts after 14 days of AAT therapy,

and to his amazement, found that it was surrounded by a protective population of T-cells that had migrated to the graft site to protect it from attack.

Further good news is that AAT can help maintain the islets before transplant. The cells are extremely sensitive, Lewis says. "In the long process of isolation from the donor pancreas in the sterile laboratory, they are inevitably beaten-up and develop severe inflammation—thus provoking an even stronger response from the recipient." The treated cells, on the other hand, evoke a significantly smaller response in the host.

Beyond maintaining islets longer and at a higher quality, AAT may make it possible to use islets that are now excluded from the human transplant program. These may include



T-cells that migrated to a graft site to protect islets after AAT therapy

those taken from less healthy donors, people over 55 and those who are obese or have somewhat higher glucose levels. Since the need for transplants far outstrips the supply, the use of AAT holds promise.

And AAT-treated islets may prove much more transportable, a critical factor for creating a centered national islet transplant program, which the American National Institutes of Health has been trying to encourage.

"We can isolate islets in a center in Washington, D.C., and ship them to a transplant unit in Colorado, for example," Lewis says. Increasing the supply is the rationale for another

current avenue of research, transplanting between species, such as using pig islets in humans. Lewis has already begun a small study to assess whether AAT will protect islets in these situations.

Will AAT apply to other kinds of transplants? "I'm not so sure," Lewis says, "because scientifically speaking, the graft would have to be as sensitive to inflammation as islets are. It is currently being tested."

The Clinical Islet Lab is a flourishing teaching lab, Lewis says, involving students for higher degrees as well as a number of medical students from BGU's Medical School for International Health. Many of them volunteer from pure enthusiasm for the research. Lewis values the close connection between the research facility and the clinical scene.

"For me the driving force is to find something clinically applicable. I began as a medical student and when I moved into research, I maintained the urge to find something clinically near at hand. That's probably why we reached clinical trials so soon—it was important for us to reach the patient."

The trials will take some time, however, because of the low frequency of islet transplants. If AAT proves successful, it can dramatically increase the viability of an attractive therapy.

In addition to giving diabetes patients new hope for a cure, islet transplant therapy is remarkably simple—it does not require surgery but rather an injection of cells under local anesthesia. Patients walk out of the procedure without the need for further insulin injections.

Israel does not now have an islet transplant program, which is why the clinical trials will be conducted at the University of Colorado Health Sciences Center, where Lewis practiced for his post-doctoral fellowship. The 38-year-old researcher hopes one day to establish such a program in Israel.

And he has an even bigger dream: "I would like to establish a major comprehensive diabetes research center in my own town, Beer-Sheva." ■

# THE HUMAN BRAIN: UNLOCKING ITS MYSTERIES

**TO MANY OF US**, studying how the brain works might seem like highly abstract science. But to Dr. Alon Friedman and his colleagues at BGU's Brain Imaging Research Center (BIRC), the work totally connects to people.

"We don't believe in science isolated from the lab. The effort is to treat patients and to learn from them," he says. "Our approach is to do clinically oriented research aimed at studying problems associated with human disease and find answers and solutions."

Established only three years ago, the imaging research center was structured from the outset to bridge the worlds of academia and patient care. It is located within the Soroka University Medical Center, adjacent to Ben-Gurion University's Marcus Family Campus.

Many of its researchers are physicians, holding positions with BGU's Faculty of Health Sciences, the hospital and the Center. It is the only brain imaging facility in Israel focused on what is called translational research—"We go from the bedside to the patient, to the bench in the lab, and back to the bedside again," Friedman notes.

A center focused on brain imaging—or for that matter, brain research

in general—would have been inconceivable five or 10 years ago. The field depends on computer and neuro-imaging technology that didn't exist earlier, and using these systems to unlock the brain's mysteries is



Dr. Ilan Shelef (front) and Dr. Mony Benifla of the Brain Imaging Research Center

generating huge excitement in the medical and scientific arenas.

Friedman holds both an M.D. and Ph.D. and teaches in BGU's Department of Neurosurgery and Physiology. Encouraged by the University's support of brain imaging as a critical future area, he was able to draw on

a core team of young scientists who had studied at BGU with him to create the BIRC. Several specialists have since been added, including a cognitive neuro-psychologist and a mathematician, and recruitment is under way to further expand the team's multidisciplinary nature.

The Center's studies range from learning disabilities to brain disorders, the process of perception, traumatic stress disorder, Alzheimer's, and the manifold complexities of mind-body interaction. In just a few years, the BIRC has accomplished groundbreaking research in understanding stress-related disease in the human brain, caused both by physical injury and psychological trauma.

Epilepsy is a particular focus. With his team and collaborators at Berkeley University, Friedman has pioneered new insights into how this very common, but little understood disease works. Early results are drawing wide attention to the Center, and have been recognized with The Michael Prize for Epilepsy Research from the Michael Foundation of Germany.

**Top:** The blood-brain barrier (BBB), a membrane that protects the brain from harmful substances in the bloodstream

## ONE MRI FOR THE ENTIRE NEGEV

Dr. Ilan Shelef directly bridges the clinical world of patient care and the Brain Imaging Research Center's activities. As the head neuroradiologist at Soroka University Medical Center, he is in charge of the Negev's only MRI machine.

Demands are extremely heavy on the MRI. It is devoted to the University's research only one day per week. The MRI's dual purposes can make scheduling tough, but the cross-functioning has unique benefits, Shelef says.

"In this hospital, researchers are not isolated, and as a clinician, I am involved in every detail of the research.

For example, we started to do functional MRIs three years ago for a research project, and I was then able to implement this research in the clinical work very quickly."

The methodology developed to research the blood-brain barrier already benefits patients because Shelef can apply it to tumor evaluation, and to understanding reaction to chemotherapy. The relationship works the other way as well: "If an interesting case comes in clinically that relates to the research work, I share that immediately."

Shelef's own main interest is in evaluating the veins of the brain. "We think that many pathological conditions in the brain—including some very common ones, like headaches—may be partially explained by the changing size of

the veins. Losing weight increases vein size, so that might connect change in weight and headache patterns." The effect of diet on migraine may be similarly connected. Shelef hopes also to collaborate with BGU nutritionist Dr. Iris Shai and a German research group in a major study of how different types of diets affect the brain structurally and functionally.

However, acquisition of a state-of-the-art research-dedicated MRI is essential to these plans. "With the equipment," Shelef says, "the Center can be a real piece of the future."

**One MRI serves the entire Negev population of 550,000 people. Patients often have to wait months for diagnostic MRIs. AABGU is seeking \$2.5 million to purchase an MRI for the Center.**

## MANY CAUSES OF EPILEPSY

Epilepsy affects between one and two percent of a country's population. Worldwide, an estimated 50 million people suffer from the disease. In some cases epilepsy is inherited, or developed because of kidney disease or other problems. But in 20 to 50 percent of patients, epilepsy is the result of trauma.

Among younger patients, head injury is a major cause, including war injuries. Because more people now survive such trauma, long-term complications result. At the opposite end of the scale, older adults most commonly develop epilepsy in the wake of a stroke. "In both cases, it's the sudden change in blood supply to the brain that makes epilepsy likely," Friedman says.

And epilepsy can also result from infectious diseases of the brain. "In some cases, even Alzheimer's may be considered as a co-current disease," Friedman says, "and some changes in behavior of old people might be related to epilepsy.

"We focus on it because it's such a difficult disease. For about 30 percent of epilepsy patients, medications don't work."

Moreover, extreme psychological stress—from combat, accident or rape, for example—affects the brain in ways very much like physical trauma. "We believe some of the rules are similar so our work may help doctors treat PTSD [Post-Traumatic Stress Disorder], which is very difficult to treat."

Friedman says the BIRC's advance in epilepsy research is rapid because "we use a holistic approach. In the past, people focused on nerve cells as the cause, but there is growing understanding that the brain is not just nerve cells, but also blood cells. We believe that to understand epilepsy, we need to study the interactions between the different parts of the brain."

The researchers use animal models, genetic analysis, observation of patient behavior, imaging, and electroencephalography (EEG). They are even able to physically examine affected portions of the brain, since their surgical removal may be a last resort in trying to cure epileptic patients. But at the heart of the research is the machine that lets them observe the brain in action: a 1.5T Magnetic Resonance Imaging unit.

What Friedman and his collaborators have discovered, with support from specialists from many BGU departments and overseas collaborators, may

change the way epilepsy and other problems are seen and treated.

## STUDYING BRAIN DYSFUNCTION

The prize-winning study centers on the blood-brain barrier—the BBB—a protective membrane unique to the brain that surrounds all its blood vessels. It allows some substances to pass through, like oxygen, glucose and other essentials—and blocks others that could be harmful. It also functions in reverse, determining what compounds will move from the brain to the bloodstream.

Through animal research and studying patients, Friedman and his team found that the BBB has a direct role in brain dysfunction. They showed that when the BBB breaks down after even a mild head injury and the disruption persists, patients have a higher risk of developing epilepsy. Almost 77 percent of the patients studied who developed post-traumatic epilepsy were found to have BBB disruption.

Research also showed that the region of the brain where the barrier remains more permeable is closely related to the region associated with epilepsy. The team has further

discovered that BBB disruption allows the bloodstream's most common protein, serum albumin, to leak through the tears. This change in the level of specific brain proteins causes abnormal cell activity, which often takes the form of seizures, and ultimately, leads to brain cell degeneration.

Epilepsy can occur years after the original trauma. These findings open the door to identifying new therapeutic treatments, such as blocking the signal that triggers the disease. Moreover, the discoveries may give doctors a tool for predicting when epilepsy will result from an injury.

Friedman and his Berkeley co-investigator, Dr. Daniela Kaufer, will

follow up the serum albumin lead with a two-year study aimed at developing therapies to prevent generation of epilepsy following brain trauma. A prestigious grant is in hand, awarded by Citizens United for Research in Epilepsy, and they have applied for funding from the National Institutes of Health.

Friedman and Kaufer have worked together for more than a decade. Her lab contributes the molecular biology and biochemistry work. Both researchers feel strongly that the road to the future is through collaborative strategies within their own scientifically diverse institutions, and between research centers around the world.

"Our collaboration is definitely a

complete synergy, enabling us to do things none of us could ever do on our own," Kaufer comments. "It enhances the way we think about science and makes us think about things we wouldn't think about. And for the students, being exposed to multiple disciplines is very beneficial—and really exciting to them."

And, Friedman emphasizes, it all comes back to being able to help people sooner. "Always, we have to go back to patients to see how the work is relevant. You can study theoretical problems and that's legitimate, but our constant focus is on patients and the community—helping the people and place where we are." ■

## "FACE BLINDNESS": A SURPRISINGLY COMMON DEFICIT

Dr. Galia Avidan, a Department of Psychology researcher who joined the Brain Imaging Research Center in 2006, studies the human visual system and focuses on faces: How does the human brain recognize them?

It may seem like a simple question because responding to the faces of people we know is not a conscious process; we just do it automatically. "But there's no computer program that can get even close to the recognition abilities humans have," Avidan says. "We can recognize someone in bright light or dusk, from the front or in profile, smiling or sad, when they're 14 or 65. It's a really complex task and that's why it's so interesting."

Vision is extremely important to humans, Avidan explains, as the sense we rely on for most of our interactions with the world. Our hearing and sense of smell aren't as good as most animals', but our visual processing is so vital that fully 30 percent of the human cortex is devoted to it.

But not all people can recognize faces. A condition called prosopagnosia, the inability to recognize faces, has long been recognized as resulting from specific brain damage. Surprisingly, it is only recently understood that the impairment can be genetic and runs in families. Two percent of the population is estimated to have this neural developmental disorder. And the consequences are not trivial: face recognition is essential to social interaction, Avidan points out, and being unable to process this information can be very stressful. Why haven't we been aware of the problem if so many people suffer from it?

"Testing in school shows up deficits like dyslexia in reading, and problems with numbers, but not with faces. Until recent research and information became available on the Internet, people must have lived with the deficit and blamed themselves—especially children."

Avidan, 36, is working to understand the syndrome of deficits and the underlying neural mechanisms. She uses behavioral

techniques and functional MRI to study the differences in brain activation patterns between healthy people and those with the deficit. A defect in the network of connections between the various brain regions is responsible, she believes, and she plans a set of experiments to test out this hypothesis.

Avidan thinks that developing a broad view of face blindness and other developmental disorders will result in diagnostic tools, and someday, programs to help people overcome these problems.



Dr. Galia Avidan



# BGU'S ROBOTS: A PROMISING FUTURE

**AMIR SHAPIRO** was the kind of kid who liked to take things apart—any kind of machine or mechanism—and reassemble them, not always successfully. Today, three mechanical engineering degrees later, he's come a long way. He directs the Robotics Lab, established two years ago at the Department of Mechanical Engineering.

The spirit remains the same: "Robotics are fun and games," 37-year-old Dr. Shapiro says. In fact, he still uses Leggos in his lab to test out construction ideas. But, while during his student years he designed robots that could dance or play soccer, the work is serious: "We develop robots for the benefit of people—to make life easier and safer."

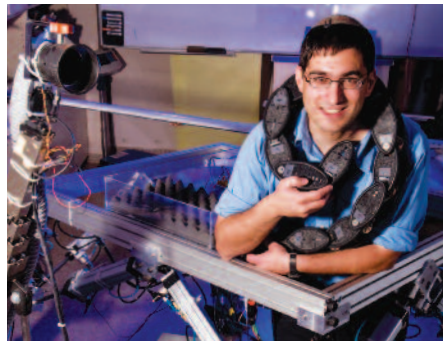
Shapiro's lab is part of a large-scale BGU research effort that reflects the University's long commitment to the robotic future.

"We're definitely the leading Israeli university in the field and internationally recognized," says Professor Yael Edan, BGU's deputy rector, a robotics researcher from the Department of Industrial Engineering and Management. "We have a very active program covering all the disciplines from mechanical engineering to industrial engineering, electrical engineering, computer science,

biomedical engineering and more."

Since 1988 the Paul Ivanier Center for Robotics Research and Production Management has served as a framework for the interdisciplinary cooperation essential to this complicated field. "This gives us something strong and unique, the widest perspective," Edan says.

The Ivanier Center includes some



Dr. Amir Shapiro and his snake robot

60 researchers who work in their own labs and collaborate on specific projects, explains Prof. Hugo Guterman of the Department of Electrical and Computer Engineering, the Center's director. Center members are pushing ahead in areas including artificial intelligence; the design, dynamics and control of robotic systems; computer aided manufacturing; and automatic production management.

Guterman's own lab focuses on

autonomous robotics such as vehicles for use on the ground, and more recently, in the air and in water. He notes that the Israeli military is experimenting with robots to patrol the border, replacing vulnerable soldiers, and that very important parts of this technology were developed at BGU.

Yael Edan's research includes improving robotic IQ and perception systems. "We're working on making them more intelligent so they can learn independently and understand what they're seeing. And for tasks that are too complicated that they cannot learn by themselves, we are investigating ways to have them cooperate with humans so they can enhance their abilities."

Edan, Shapiro and other researchers work together on agricultural robotics, including a selective sprayer for orchards, vineyards and dates. Date trees are especially challenging because they require robots to operate at great heights.

Biomedical applications of robotics are also accelerating. Edan worked with her colleague, Professor Helman Stern, who led a project to create a widely heralded hand system that enables surgeons to manipulate onscreen digital images with hand motions. Called Gestix, it was success-

fully tested at Washington Hospital Center during a neurosurgical biopsy.

Shapiro's projects include creating robots that can climb between walls, scale slippery vertical surfaces, maneuver rough terrain, and travel in spaces too small or inaccessible for people.

The snake robot is a case in point. Earlier, as a post-doctoral student at the Robotics Institute of Carnegie-Mellon, Shapiro had tackled the challenge of building a robot that can climb between two walls. At BGU he wanted to extend the idea to a three-dimensional model and create a snake robot able to move in a much wider range of terrain or environment.



"Ronin," an autonomous vehicle, was BGU's entry for the 2007 DARPA Urban Challenge competition for driverless cars. BGU technology is being used for robotic border-patrol vehicles that could replace valuable soldiers. From left: Prof. Hugo Guterman, Dr. Victor Boskovitz and Jonathan Distler

While this is a popular project at a number of universities, Shapiro notes that his lab is aiming for a first—to create a snake robot that is autonomous. Existing snake robots are controlled, like model boats. If a human being does not direct the mobile robot, how can you determine its location? "One of the problematic things with mobile robotics is being able to send one somewhere unfamiliar and know where it is," Shapiro says. The problem is solved by calculating the angles of the snake's links and their geometry.

The various robotics labs are attract-

ing a growing number of enthusiastic students. Shapiro says he especially likes directing senior projects: "You can use your imagination and have the students check new concepts."

Recently, for example, he brainstormed with students about how to make a robot attach itself to a wall and climb. "We came up with different ideas and tried them all out. One is to use hot melt glue on the tracks of a robot—that's the snail-inspired robot and works on relatively smooth vertical surfaces. We tried a four-footed robot with claws, like a cat; that's good for climbing on rough surfaces."

One student, a naval officer, knew that a better way was needed to inspect ships coming into port. For people, this task is laborious and sometimes dangerous. The suggested solution is a robot equipped with magnetic wheels mounted on springs, able to overcome obstacles. It can stick to a ship's slippery side and go underwater, without complaint. The magnetic robot can also be used to inspect metal bridges—the lab tested it on the well-known HaYarkon bridge in Tel Aviv.

Because robots can go places that are dangerous, narrow, small, or otherwise inaccessible, the military sees many potential uses for them and applications are advancing rapidly. In the industrial sphere, a number of robots are already at work but many more are anticipated.

However, commercial home use of robots is still a young field with much on the horizon. In addition to doing our household chores, robots promise to interface with our everyday lives in a number of ways.

For example, with Dr. Itzhak Meltzer, head of the Physical Therapy Department, Shapiro is working on

devices, such as a special treadmill, "to try to help elderly and disabled people walk better," he says.

Shapiro is also contributing to a robot project to help people with impaired ability to walk, and to carry things to places wheeled vehicles are unable to go.

The researchers estimate that it will take 10 years for robots to really mesh with our daily lives. Some major problems need to be solved. Robots need improved perception and better ability to interact with the environment—and they must become less expensive. Reliability is an issue.

As Shapiro points out, "Robots are very complex machines and if one thing breaks down, the entire machine won't work. To move from academia to more commercial and domestic use, they must be made reliable."

But, he thinks, in a decade, "many of our routine tasks could be done by robots—maybe most of them. If we want them to."

How readily people will adapt to living with robots is an open question. There are already cultural differences in how well robots are accepted, Prof. Guterman observes. "Korea and Japan are more open to receiving robots in everyday life than Israel, European countries or the U.S. We are not so sure how to behave around robots. But they can do so many things, like work that is very difficult to perform, or dangerous, or carries a high cost for humans."

He hopes to see robots replace human soldiers in the near future.

Yael Edan, working with robotics for two decades, finds the possibilities more inspiring than ever. "Twenty years ago we proved the feasibility of a robot melon picker, but everybody thought we were crazy. Costs were prohibitive and we lacked the computer power. Today, robots are starting to enter everyday life and can handle complicated, open-ended applications and environments.

"It's exciting to see developments come together now. I knew it would happen." ■



# A DESERT MISSION: END OF LIFE CARE

**THANKS TO DONATIONS**, the Ambulatory Palliative Care Service purchased a four-wheel drive SUV four years ago. Its unique mission: to reach terminally ill patients in the Negev's remotest regions and help them make the most of their remaining time.

Twenty percent of the Negev's inhabitants can now be served in this way, but Dr. Yoram Singer—or Dr. Yoram, as he is usually called—wishes the figure was 100 percent: “Not to help 80 percent is very frustrating, because it's extremely difficult to know someone out there is absolutely miserable but can't get the help. The idea is to serve the whole area.”

The service he has directed since 1993 has already achieved notable milestones. Part of the Faculty of Health Sciences' Division of Community Health, the service comprises three palliative homecare units in the Beer-Sheva area, in addition to the mobile unit. Their goal is to enable dying people to remain at home and to treat their pain, anxiety and spiritual needs, while also supporting the families that face the

loss. There are only three other similar palliative care services in Israel, and the BGU team is working to make its service a model for the development of more.

Singer, who did his residency at BGU and spent two years at an African mission hospital, began practicing family medicine in Kiryat Gat near Beer-Sheva in the early 1990s.

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**“I discovered that there's a whole realm of medicine we're never taught, even though a lot can be done to alleviate suffering.”**

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—DR. YORAM SINGER

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“As it happens, people die, and I found myself without the faintest idea what to do and nobody to consult with,” he recalls. “I discovered that there's a whole realm of medicine we're never taught, even though a lot can be done to alleviate suffering.”

A small home case management program had been set up in Beer-Sheva, and Singer was asked to take it on. Ultimately, he opened a consultation service at Soroka University Medical Center and one by one, established the homecare units. “I was giving consultations at the hospital, but when people got really sick and probably needed me most, if they didn't happen to live in one of those places, there was nothing to be done for them—an especially aggravating situation for the Bedouins living in the middle of the desert, with unpaved roads and difficult access.”

Enter the SUV, which is on 24-hour call and travels up to 100 kilometers from Beer-Sheva. It is used to care for the Bedouin population and also those living in Arad, Dimona, Yeruham and other kibbutzim in the area. Additionally, an important part of the mission is to advise and support those medical professionals caring for the terminally ill in the Negev, so they are able to take on more responsibility in caring for these patients.

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**Top:** Dr. Yoram Singer (left) and a member of his Palliative Care Service provide end of life care.

Operated by BGU collaboratively with the health organization Clalit, and with support from the National Cancer Association, the SUV carries a core team of a physician, a social worker, a nurse and a Bedouin driver/translator. It is equipped for some sophisticated procedures, but the mobile unit's work goes far beyond tending to physical needs.



“Patient care is not only choosing the right medication,” Singer observes. “There’s the whole issue of quality of life, mental health, all kinds of spiritual issues to resolve that most of us don’t like to think or talk about much. The medical profession is slowly beginning to understand that you must be sure the life you’re prolonging is worth living.”

Cultural differences can make it highly challenging to establish a support system for the family of a terminally ill person. The service treats Muslims, Jews, immigrants from Europe, North Africa and Russia, and more, without charge. “The basic feelings about dying are there, regardless of the culture,” Singer says, “but the manifestations—the way people talk about and deal with it—may be different. Especially toward the end of life, everything is emotion laden. You need to be aware of these differences, be able to understand, and not offend.”

The Palliative Care Service has been made an integral part of BGU’s Joyce and Irving Goldman Medical School. All family medicine residents are required to spend nine months working with the service, “so more doctors will be out there knowing what it’s about and the questions to ask.” And work is under way on a curriculum for the Faculty of Health

Science’s undergraduates.

What will they learn?

“It’s a good way to teach them about caring, empathy, communication skills in tricky situations, as well as a good model for basic medical skills,” Singer says. Further, the Division of Community Health operates the INPACT program (Israel National Palliative Care Training), which is pioneering the palliative care training of medical teams from all over Israel.

How do students and practitioners react to their contact with end-of-life services? “In the beginning, they don’t have the faintest idea what you’re talking about,” Singer says. “The only way is to show how it works—a role model way of teaching. Then it’s like a whole new world has been discovered and it’s very attractive.”

A volunteer program is thriving with participants from the medical, nursing and social work schools. The students train to work with families

that are caring for dying patients, and continue their bereavement work with family members for a year.

Singer sees in such experience a special value for health professionals. “We’re trying to reverse the depersonalization of medicine, and show it’s possible to care about somebody and not become a human wreck. It’s a building experience; you have to have the courage to dive in and see what happens.”

But burnout, he acknowledges, can be daunting. Constant staff interaction helps counter the tendency, as well as various kinds of support from BGU. The University’s role pleases Singer.

“Most universities are not involved in providing any services to the community, let alone health services,” Singer comments. “BGU is saying it’s a university that wants to be involved with the community as it exists, and this is one way it does that.”

For Singer himself, the patients and their families are a source of strength. Practicing family medicine and palliative care, he explains, enables him to realize his dream: “Making Israel a better place to live in...teaching the humanistic part of medical practice...practicing whole person medicine and showing others that even in this day and age, it can be done.”

Even more: “With the mobile unit, one of the main things we try to do is break the cultural barriers. We’re



Mobile Unit

bridging the gap between Jews and Muslims in this troubled area with a free service that fills a tremendous need. It’s a different angle of looking at our relations with our neighbors, and it has an impact for sure.” ■

# FROM BGU TO AFRICA: RESEARCH BY AND FOR AFRICANS

**IN FEBRUARY OF 2008**, two BGU researchers—Dr. Leslie Lobel, a virologist, and Prof. Robert S. Marks, a biotechnologist—shared a six-hour layover in Newark Airport en route to a meeting in Washington D.C.

“There was no place to fall asleep,” says Lobel, who is with the Department of Virology and Developmental Genetics, “so we started brainstorming in the worst possible place. We began a white paper about doing science in Africa and teaching the Africans how to develop their own intellectual property.”

Research on the Ebola virus had drawn Lobel to Africa in 2004. Marks, an expert on biosensors—sophisticated monitoring devices for diagnosing disease and environmental contaminants—joined him the following year. Together they worked on diagnostic tools for dangerous viruses and collaborated with partners in Senegal, Uganda and South Africa.

They found that although Africa has some excellent scientists, they face formidable obstacles. “There’s good basic education in biology and chemistry at the universities,” Marks says, “but no specialized courses in biotechnology and very few facilities

with biotechnology equipment.”

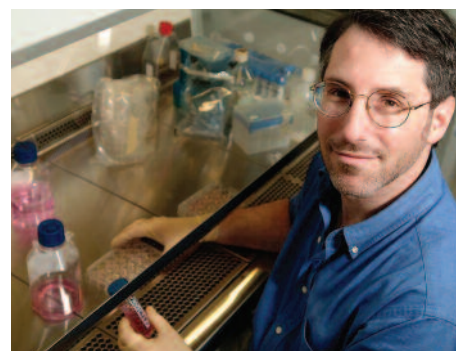
If Africans could access advanced training they could do their own research and moreover, learn to start businesses based on their work. Sparked by the idea, Marks and Lobel found support through the U.S. State



Prof. Robert S. Marks

Department and Army Research Labs, as well as BGU, for a kick-off conference. It was held at the Pasteur Institute in Dakar last July. Called ViralCheck, the week-long event brought together researchers and medical personnel from Senegal, Nigeria, Uganda, South Africa, French Guiana, and Ghana, as well as Israel, the U.S., Germany and the World Health Organization.

The conference was not just a series of lectures, Marks explains, but a direct learning experience. To develop understanding of different diagnostic systems, attendees were given blind samples of diseases, including dengue fever, HIV and hepatitis to identify,



Dr. Leslie Lobel

and ultimately shared results. A mock yellow fever outbreak was staged to bring participants into the countryside face to face with the difficult conditions of a local village.

And there was dialogue that confirmed Marks’ and Lobel’s conviction that there might be a better way of helping Africa than putting its people in a subsidiary role and encouraging them to rely on funding from other



The kick-off conference for the Bio-Africa Research Network in Dakar brought together scientists, medical personnel and students from various African countries, Israel, the U.S., Germany and the World Health Organization.

parts of the world. The two researchers shared their idea for an ongoing collaboration, for which they'd coined the acronym BARN—the Bio-African Research Network. The vision: to build a consortium of research centers in Africa and around the world. The central lab would be based in Africa, and scientists from the U.S., Europe and Israel would work there on an ongoing basis, alongside African scientists.

“We had a brainstorming session on where to start and they told us it was the first time anyone had asked them what they think,” Lobel reports. “They voted to focus on diagnostics that are affordable in Africa, because the diagnostic kits available to them now are way too expensive for their budgets.

“And they want diagnostics for what they think are their biggest problems—not malaria, as is often assumed, but diarrhea, which kills so many people. And diseases that infect their cattle because that means they can't sell their meat.”

The participants also agreed that building jobs for Africans is a top priority. The limited number of openings for those who are educated leaves no room for young people, so they go overseas.

“We want to bring Africans to study at BGU labs to get the initial training,

and the facilities and support people for building diagnostic tools,” says Marks. “We'll show them how to participate in the world of biotech. They'll do research based on the needs defined by the Africans themselves, learn to use information technology, apply for patents, search for money and create African start-up companies.”

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**“They'll do research based on the needs defined by the Africans themselves, learn to use information technology... and create African start-up companies.”**

—PROF. ROBERT S. MARKS

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Marks is now focused on developing the research plan, and on raising resources to support BARN. Once the finances are in place, he believes start-up projects can be selected in five years, and three to five years later, the first major African-developed diagnostic tools could result. Drug development can be part of the picture later, he anticipates, especially given Africa's wealth of traditional

medicine and biodiversity.

So far Marks and Lobel have focused on Ethiopia, Uganda, South Africa and Senegal. For the most part they fly to Africa between fulfilling responsibilities at BGU, and a few students are involved in the research and have spent time there.

Lobel sees a big potential for the idea born in an airport. “BARN has a chance of really making a difference because we're building in a method of sustainability and a way for Africans to help themselves. Even if it's just one tiny point of light, it might be the ground level for what can become a model for how to turn Africa around.

“We're also motivated by wanting to do something good for Israel. Israel is heavily invested in Africa through business, and does a lot of good that goes unnoticed. We can bring a spotlight on that—and to BGU.” Because both Lobel and Marks hold dual citizenships and are seen as Americans as well as Israelis, the BARN initiative is spreading goodwill for the U.S. too.

Lobel thinks the BARN model he and Marks are inventing is a way for BGU to act in the ideal university tradition: “It's breaking out of the box and applying research for people.

“This is what I believe academics should be doing—bringing together all the disciplines and going beyond personal pursuits to help humanity.” ■

# TEDDY BEAR HOSPITAL HELPS CHILDREN OVERCOME MEDICAL FEARS

**WHAT COULD BE MORE** frightening to a child than hospitalization, or even a simple medical exam involving needles and other intimidating devices? Few healthy children are prepared for such situations.

Eight years ago, as a student at BGU's Joyce and Irving Goldman Medical School and chairman of the Medical Student Association of the Negev (ASRN), Dr. Yuval Bloch attended a conference of European counterparts. He saw a presentation on the "Teddy Bear Hospital" program.

"I immediately fell in love with it and brought it back," says Dr. Bloch, who is now chief resident of Soroka University Medical Center's pediatric division, and a lecturer in BGU's medical school. "It was very easy to convince the University, the hospital and ASRN to take part. The minute everyone heard about it, they joined."

Every year since then, Beer-Sheva kindergartners have come to Teddy Bear Hospital, a half-day event held in Soroka's main courtyard. "The goal is to give children who've never been to a hospital a good first experience and make them less afraid," Bloch explains. Volunteer medical students from the Faculty of Health Sciences come to act as doctors. Each child brings his or her own teddy bear. "We ask them to invent some kind of disease—it may be a common one like a cold, or a serious illness, or even a non-existent one like juice disease. They play parent to the teddy bears."

The lab-coated "doctors" take the bears' medical histories from the "parents," and then carefully examine the



A pre-schooler plays parent to her sick teddy bear with the help of a student from the Joyce and Irving Goldman Medical School.

"patients." Props include stethoscopes, dressings and syringes without needles. Various lab and diagnostic tests may be done, even x-rays and blood work.

At the end of the session, the acting parents are told about the diagnosis and treatment, which might involve bandaging and medication. The teddy bear is released with some suggestions, like "don't spend all your time playing on the computer"; "brush your teeth"; "be sure to exercise." The children then get the opportunity to express their own thoughts in writing or drawing.

Teddy Bear Hospital, its organizers hope, will short-circuit a child's fear response to the medical system that results from a frightening first experience. The interaction is very good for the medical students too, Bloch reports. "For most, it's the first time they've communicated with a child on this level rather than talking to the child through the parents. They see the world from the child's eyes,

and find that the fears are not trivial and not always what we think."

In 2008 the program was dedicated to the children of Sderot, the town that has been constantly bombarded by terrorists for more than eight years. All 200 of Sderot's four and five-year-olds were invited to participate.

Teddy Bear Hospital is one among many community outreach programs run by the very active student association, ASRN. There are also workshops on sexual violence prevention and health, given at the high schools; a day of fun for Ethiopian immigrant children; and the Dr. Clown program, aimed at bringing laughter into the lives of children hospitalized for long periods of time.

Yuval Bloch, who is now 35, says he is proud to be a BGU graduate and to teach there. He found it very natural for the University to take part in the community. "Students are 10 percent of Beer-Sheva's population, so the community and students are almost one." ■



Dr. Yuval Bloch

AABGU's nine regional offices around the country play a vital role in helping BGU develop the bold vision for the Negev, the focus of the future of Israel and the world. Regional events include symposia, luncheons, dessert receptions, gala evenings and missions to Israel. The following pages provide a glimpse of the regions' recent and upcoming activities. We invite you to get involved and become infused with the spirit of discovery.

## GREAT LAKES

Ernie Simon, *Chair*  
Larry Goodman, *Honorary Chair*  
Judy Rosen, *Director*  
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Professor Miri Amit spoke at a reception hosted at the Deerfield home of Sheila Small, presenting BGU's Kidumatica, a math enrichment program for gifted children of the Negev. She challenged the group to solve a question that candidates are asked when applying to Kidumatica.

Professor Isaac Meir of BGU's Jacob Blaustein Institutes for Desert Research visited Chicago. "Trends in Israeli Environmentalism" was the topic at the Arthur W. Brown Memorial Lecture sponsored by the Jewish United Fund of Chicago, which brought together more than 200 community members at the North Shore Centre for Performing Arts. Prof. Meir was one of three speakers who talked about Israel's advances in environmentalism. The following day he spoke about his work in eco-architecture at a small luncheon hosted at the Standard Club.

Professor Natan Aridan, of BGU's Ben-Gurion Research Institute for the Study of Israel and Zionism, visited a snowy Chicago in December. He spoke at a downtown luncheon and an evening program co-hosted by Bank Leumi. His topic, "Israel at 60: Vision and Reality," touched on David Ben-Gurion's dream of building an Oxford in the desert and about BGU's unique role in Negev development. Prof. Aridan discussed David Ben-Gurion's leadership in times of crisis at the monthly meeting of the Chicago Board of Rabbis.

The Chicago Board of the AABGU Great Lakes Region had its first meeting in late January. Board members heard about upcoming local and national programs and were updated by Deputy Consul General from Israel Gershon Kedar on the current situation in Israel and the upcoming Israeli elections.



Head of Bank Leumi Chicago Uri Shuker; Regional Director Judy Rosen; Prof. Natan Aridan; Branch Manager Bank Leumi Highland Park Dror Zetouni



Professor Isaac Meir (center) and BGU Founders Sheila and Len Savitt

**Chicago will be hosting "From the Desert, Sun and Sea...For the World," environmental symposia in May. The programs will take place in the city and suburbs. Call the regional office for more information.**



**GREATER FLORIDA**

William A. Gralnick, *Director*  
 Carolyn Yasuna, *Associate Director*  
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The reorganization of AABGU’s Florida offices has been completed. The two offices have been consolidated into one larger office in Boca Raton, and two new professionals have been hired.

William A. Gralnick, a 33-year veteran of the American Jewish Committee and executive aide to the homeland security commander for the Palm Beach County Sheriff’s Office, is the new director. Bill brings with him a detailed knowledge of South Florida, a strong network and fine media relations skills. Bill was chosen as one of the 50 most influential Jewish professionals in Palm Beach County, and was awarded a doctor of humane letters by Florida Atlantic University.

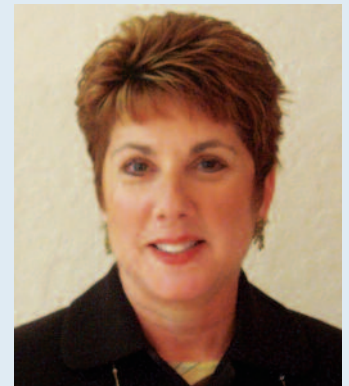
Carolyn Yasuna, the new associate director, has been involved in Jewish organizational leadership for the past 20 years. She spent eight years at the Jewish Federation of the Palm Beaches, eventually becoming the Women’s Campaign Division director. Carolyn tutors b’nai mitzvah students, and participates on a variety of committees at Temple Emanu-El, Palm Beach.

Getting right down to work, Sol and Edy Freedman and Lillian and Larry Goodman joined staff in arranging the first BGU function in Frenchman’s Creek. Dr. Monnie and Susan Kanter lent their home to the event, and AABGU Executive Vice President Doron Krakow spoke about the war in Gaza and the BGU-Negev Emergency Fund.

In February, Dr. Robert Watson, nationally known Lynn University political scientist, spoke about the “Middle East after Gaza.”



Sol Freedman, Edy Freedman, Hostess Susan Kanter, Larry Goodman, Lis Gaines, AABGU Executive Vice President Doron Krakow, and Lillian Goodman at a BGU reception in Frenchman’s Creek



William A. Gralnick, Regional Director Carolyn Yasuna, Associate Director

In March, BGU alumna Rawia Aburabia, lawyer, social worker and activist, discussed life in today’s Bedouin communities (see page 11).

**GREATER NEW YORK**

Lite Sabin and Jessica Sillins, *Chairs*  
 Kevin M. Leopold, *Director*  
 Wendy Clarfeld, *Associate Director*  
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Nearly 200 friends attended “Seeking Sustainability: an Environmental Symposium” and a reception to honor Lis Gaines at the Harvard Club of New York City on November 9. There, Professors David Faiman, Isaac Meir and Zeev Weisman discussed the latest advances in



Betty and Arthur Roswell, Michael Hirschhorn and his wife Jimena Martinez, family and members of the Jacob and Hilda Blaustein Foundation, at a cocktail reception

solar research, green architecture and plant-based biotechnology. The evening was chaired by Joshua Arnow, a passionate supporter of environmentally sustainable research, and emceed by New York Regional Board Member Peter Kashin.

The event coincided with the anniversary of Kristallnacht. AABGU friend and supporter Lolita Goldstein, who survived that horrific ordeal, spoke movingly about her experiences; this fostered a moment of reflection and resolve for Israel.

But the night was to honor Lis Gaines, a founder of the AABGU organization, a former national president and regional chair, member of the Ben-Gurion Society, and eternal advocate for the University. For her longtime commitment to and support of AABGU and the University, the region established the Lis Gaines Endowed Scholarship Fund for students at BGU's Albert Katz International School for Desert Studies.

We carry the success of this event forward as we fill the calendar with innovative and captivating events for our constituents. Exciting new advances are happening, and the New York Region is eager to share how the University is excelling.

**Opposite Top:** Symposium honoree Lis Gaines with some of her grandchildren **Bottom:** Lolita Goldstein, host of a private cocktail reception, flanked by BGU Prof. Avigad Vonshak and Regional Co-Chair Jessica Sillins



## GREATER TEXAS

Sandra and Steven Finkleman, *Chairs*  
Deborah K. Bergeron, *Director*  
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Guests braved the snow to attend the Kick-Off Reception for the Eighth Annual Kosher Dining Extravaganza, held at the penthouse suite of the Bristol High Rise Condominiums on December 10.

Regional Board Member Dora Klaff chaired the reception, which was catered by Jenny Tavor. Regional Chairs Sandra and Steve Finkelman introduced honorees Haya and Jacob Varon with a quote from David Ben-Gurion: "Words without deeds are nothing. One must show the way by example."

Rabbi Nanon Teller, friend and mentor, praised Haya and Jacob for their commitment to the Houston community and to Israel. The Varons' leadership and community service will be recognized with the David Ben-Gurion Leadership Award at the Extravaganza, which is scheduled for March 18 at the Omni Houston Hotel.

Dinner Chairs Lisa Lepow Turboff and Steve Friedman



Haya and Jacob Varon will receive the 2009 David Ben-Gurion Leadership Award at the Eighth Annual Kosher Dining Extravaganza

excited the crowd with a preview of the Extravaganza, which will include a multi-course dinner prepared by Houston's top chefs, plus a silent auction and raffle.

Also during the Kick-Off Reception, guest speaker BGU Professor Natan Aridan, of the Ben-Gurion Research Institute for the Study of Israel and Zionism, discussed David Ben-Gurion's visions and dreams for the Negev and Israel. Prof. Aridan described Israel's achievements and

the State's short- and long-term goals. He presented Haya and Jacob with a copy of the Declaration of the Establishment of the State of Israel, which was originally presented by David Ben-Gurion in Tel Aviv on May 14, 1948.

**On April 30 and May 1, the Greater Texas Region will host an environmental symposium in Houston and Austin, respectively, featuring world-renowned experts.**

**Opposite:** Prof. Natan Aridan; Regional Co-Chairs Sandra and Steven Finkelman; Regional Director Deborah Bergeron



## MID-ATLANTIC

Jack R Bershad, *Regional Chair*  
Ernest Scheller, Jr., *Philadelphia Chapter Chair*  
Mona & David Zeehandelaar, *Philadelphia Chapter Vice Chairs*  
Claire Winick, *Director*  
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winickc@aabgu.org

Stanley D. Ginsburg, benefactor of the Ginsburg-Ingerman Overseas Student Program, was presented with an honorary doctorate in recognition of his outstanding commitment to Ben-Gurion University at a very successful tribute gala in November. BGU President Prof. Rivka Carmi bestowed the degree in the presence of 275 guests, including Ira Ingerman.

Events were held in early fall in preparation for the gala. A kick-off reception hosted by Rita and Joseph Scheller featured BGU Prof. Miriam Amit, who spoke about the Kidumatica program that she developed and continues to run. The children of Arlene and Stanley Ginsburg hosted a Patron Party, where Prof. Fred Lazin discussed the political scene in Israel and the U.S.

In mid-November, Dr. Alon Friedman, of BGU's Brain Imaging Research Center, visited Philadelphia and spoke to members and friends of the chapter's Health Sciences Resource Committee at a breakfast hosted by committee leaders Barbara Sivan and Richard Nager. He presented his breakthrough research related to the prevention and treatment of trauma-related epilepsy. (See page 14.)

Prof. Natan Aridan of the Ben-Gurion Research Institute for the Study of Israel and Zionism and AABGU Executive Vice President Doron Krakow spoke at a symposium in honor of Israel's 60th anniversary at Congregation Or Ami in December. The chapter board also enjoyed a presentation by Prof. Aridan at a Chanukah luncheon hosted by Jack R Bershad.

In February, the 10th anniversary snowbird reception drew a large crowd to the Broken Sound Country Club in Boca Raton. In March, the region participated in a synagogue event honoring Israel's 60th anniversary with Prof. Fred Lazin.



Prof. Amos Drory, BGU's vice president for external affairs; Arlene and Honoree Stanley D. Ginsburg; and Prof. Rivka Carmi, University president, at the Philadelphia Chapter's annual community gala



Prof. Natan Aridan; Doron Krakow; Ernest Scheller, Jr., Philadelphia Chapter Chair; Dr. Matt Schwartz, event organizer; and Lowell Raeder, Congregation Or Ami president, at the Israel at 60 symposium

**The region looks forward to exciting Spring events, which include partnering with Israel Bonds for an "Evening of Honor" in April. In May, an environmental symposium, "From the Desert, Sun and Sea...For the World," will be held, featuring BGU's world-renowned experts.**

NEW ENGLAND

Max Schechner, *President*  
 Mark Goldman and Ralph Kaplan, *Chairs*  
 Ben Shamir, *Director*  
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Throughout the year, the New England Region draws local attention to innovative programs, events and speakers from Ben-Gurion University. Recently, the region partnered with Combined Jewish Philanthropies, the Consulate General of Israel to New England, the Boston-Israel Cleantech Alliance, The Jewish Federation of Rhode Island, the New England-Israel Business Council, several major law firms, and large synagogues. These partnerships proved invaluable to our programs' success and outreach to the community.

The region updates a vast number of local friends of BGU through an ever-growing e-mail distribution, bringing home the latest ideas and advances from the University and deepening connections with our supporters.

In November, Boston area crowds had the opportunity at three separate events to hear BGU Professors David Faiman, Isaac Meir and Zeev Wiesman address topics ranging from the efficient and economical capture of solar energy to conserving energy through green building techniques, and harvesting energy from plant oils.

The first environmental symposium was hosted in Brookline by Temple Ohabei Shalom. The second was a luncheon in Waltham, sponsored by the law firm Foley Hoag. BGU founders Dr. Moshe and Idit BenBassat were kind enough to host a dinner reception at their home for the professors.

In January, Prof. Michael Alkan spoke on "How Israel Helps the World Conquer AIDS" at the Jewish Community Center of Rhode Island. The professor emeritus recently



Dr. Moshe BenBassat hosts Prof. David Faiman at a dinner reception



Professors Zeev Wiesman, David Faiman and Isaac Meir applaud Max Schechner, regional president, during the "Seeking Sustainability" symposium in the Waltham offices of Foley Hoag.

retired from teaching at BGU's Medical School for International Health, and is the former chief of infectious diseases at Soroka University Medical Center. He was involved with government initiatives in China and Africa to help fight AIDS.

NORTHWEST

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 Daphna Noily, *Director*  
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Regional President Sonny Hurst and her husband Dr. Steve Hurst hosted a reception for local physicians, including neurologists, psychiatrists and internists, in their Foster City, California home in November. The event featured Dr. Alon Friedman from BGU's Brain Imaging Research Center, who discussed his latest research on the effects of trauma on brain function (see page 14). The event was co-hosted by Dr. Gil Gradinger.



Regional President Sonny Hurst presents award to Honoree Carol Saal, AABGU's national president, with Fred Levinson and Event Chair Steve Krieger.

On January 11, 2009, the Northwest Region hosted a symposium, "Healing our Bodies; Healing our World," at the Stanford University Faculty Club, chaired by past regional president Steve Krieger. The symposium featured Prof. Michael Alkan on infectious diseases and disaster relief medicine; Dr. Eli Lewis on possible cures for diabetes (see page 12); and Medical School for International Health graduate Dr. Suzanne Meehan on post-traumatic stress syndrome.

Each attendee had the opportunity to become a "student for a day" and attend a class led by one of the presenters. The incredible program continued with a luncheon that honored AABGU President Carol D. Saal for her exemplary leadership. Sonny Hurst, Fred Levinson and Steve Krieger presented Carol with a signed photo of David Ben-Gurion accompanied by a moving diary entry from the day of Israel's declared independence. The symposium concluded with a panel discussion moderated by Eric Benhamou.

During a lovely reception at Riki and Jacob Dayan's home in January, 36th anniversary founders were presented with beautiful candlesticks designed specifically for this occasion. Other 36th anniversary founders include Dvora Ezralow, Dan and Sandy Feldman, Richard Goldman, Suse Smetana, Ingrid Tauber, Nahum Guzik, and Lorry Lokey.



Sonny Hurst, Riki Dayan, Regional Director Daphna Noily and Jacob Dayan

## SOUTHWEST

Ruth Flinkman, *Campaign Chair*  
Philip Gomperts, *Director*  
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The Southwest Region's "Excellence in Research Symposium on Alternative Energy, the Environment and Medical Science" and tribute luncheon was held at the Beverly Hilton Hotel in November. Ruth and the late Stan Flinkman were honored for their longtime support of BGU. Ruth was presented with the prestigious David Ben-Gurion Award.

Guest speaker Gabriela Shalev, Israel's first female ambassador to the United Nations, discussed Israel's top priorities, including the ongoing investment in scientific and technological research. Ambassador Shalev concluded her remarks by stating, "Many of Israel's current achievements can be traced back to Ben-Gurion University of the Negev."

The symposium featured the cutting edge research of four world-renowned BGU scientists: Dr. Eli Lewis, who talked about diabetes research (see page 12); Prof. David Faiman, addressing solar energy; Dr. Alon Friedman on



AABGU President Carol Saal and Honorary Event Chair Larry Field present the David Ben-Gurion Award and scroll to Ruth Flinkman (center).



Guilford Glazer; AABGU President Carol Saal; Diane Glazer; Regional Director Philip Gomperts; Ambassador Gabriela Shalev; and AABGU Executive Vice President Doron Krakow

brain function and disorders (see page 14); and Prof. Zeev Wiesman speaking about biofuels.

**Opposite:** Symposium Presenters Dr. Eli Lewis, Dr. Alon Friedman, Prof. Zeev Wiesman and Prof. David Faiman with Moderator Lucy Fisher (center)



## WASHINGTON/BALTIMORE

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Dr. Eli Lewis, incumbent of the Ilse Katz Career Development Chair in Health Sciences Research, and lecturer in clinical biochemistry at BGU's Medical School for International Health, gave several successful presentations on treating and curing diabetes in Washington and Baltimore in November (see page 12).

In Baltimore, Dr. Lewis led the prestigious Endocrine Grand Rounds at Johns Hopkins Medical Institute, presenting to the Institute's top researchers and physicians. Toby and Mort Mower, longtime supporters of AABGU and members of BGU's Board of Governors, also attended. In Washington, Dr. Lewis gave a guest lecture to medical students at George Washington University Medical Center, and later discussed his research at an AABGU reception with supporters and friends at the home of D.C. Chapter Board Member Dava Berkman.

In December, the region co-sponsored, with the Library of Congress and the Embassy of Israel, the program, "Overcoming Today's Bedouin Community Challenges," featuring BGU alumna and Bedouin activist Rawia Aburabia. The program garnered much interest in the Washington community with an article in the *Washington Jewish Week* and a room filled mostly by new attendees. In addition to talking about the history and challenges of the Bedouin community in Israel, Rawia spoke about her positive experiences as a graduate of BGU's Charlotte B. and Jack J. Spitzer Department of Social Work and the wonderful programs and support offered by the Robert H. Arnow Center for Bedouin Studies and Development. (See page 11.)

The region continues to increase community connections and recruit new AABGU supporters through regular synagogue, Hadassah and other group presentations throughout the community.



Toby and Mort Mower with Dr. Eli Lewis (center) after his Johns Hopkins presentation



BGU alumna Rawia Aburabia (right) speaking to attendees at the Library of Congress event

**On May 7, the Washington/Baltimore Region will host "From the Desert, Sun and Sea ...For the World," an environmental symposium with world-renowned BGU experts.**

## RAWIA ABURABIA *Continued from page 11*

Program at American University in Washington, D.C. She is there now, studying for a master's in international law to be followed by an internship at an American human rights organization.

Rawia's voice is already being heard in the U.S.: In early December, she was invited to speak at the Library of Congress as part of its Hebrew Language Table series, with AABGU and the Israel Embassy as co-sponsors. She presented an overview of the political and historical background of the Bedouin community, its way of life today, the challenges, the economic future, and how change is affecting Bedouin women.

What motivates Rawia to this dizzying level of activity?

"Growing up, the main message in my own home was that when you're part of an ethnic minority, you have to be best and offer more. And education is the best way to do that."

Rawia's father was the first Bedouin physician and opened the first medical clinic for Bedouins in Rahat, near Beer-Sheva. The family message was not lost on any of Rawia's siblings: Her four sisters already possess or are planning to acquire Ph.D.s, while her brother is currently working on his first degree.

Rawia found BGU a good fit academically and in spirit. "It was an excellent experience both because of what I learned and because BGU is a university that is very much involved in the surrounding community. It's not academics in a bubble, like many places elsewhere...BGU is always willing to enrich the community."

She notes in particular the University's Robert H. Arnow Center for Bedouin Studies and Development, which plays a key part in enrolling more Bedouin students and provides scholarships for women; and the Bedouin Heritage Center, which introduces Bedouin culture and activities to its visitors. She is also happy that BGU supports the Association for Promotion of Bedouin Women's Education in the Negev, with which BGU President Prof. Rivka Carmi is engaged.

Rawia intends to use her skills for the benefit of her Bedouin community. "I was privileged to grow up in Beer-Sheva and go to Jewish schools and have opportunities others don't have. So I have a very strong psychological need to give back to my society."

Helping Bedouin women face today's challenges is high on her agenda. "We have many more educated women in the universities than in the past, but also regression processes," she observes. "Eventually they have to come back to the same tribal society and then it's hard. My aim is for Bedouin women to have the possibility of deciding their lives themselves."

What's next for Rawia after she completes her LL.M. program?

"I'll go back to Israel and implement some of the lessons and tools I've learned. And I'll get a Ph.D. in law."

Rawia will be supremely equipped for her overarching personal mission: to foster a world where her own achievements as a Bedouin are not unique. "I want to be beyond being 'first'. It should just be that we have hundreds of physicians, lawyers—that that's the normal place to be. That's what I hope to achieve." ■

Alumni are invited to join BGU's alumni association. To get involved and learn more, write to [alumni@bgu.ac.il](mailto:alumni@bgu.ac.il) or visit [www.bgu.ac.il/alumni](http://www.bgu.ac.il/alumni).

## THE GLAZERS

*Continued from page 8*

An Israeli plane flew the food and medicine to China. This was a boon to Chinese-Israeli relations.

The Glazers are focused on a long-range goal: promoting peace in the Middle East. A better future for Palestinians will mean a more secure Israel.

Guilford engaged the think tank RAND Corp. again. Their study suggested ways of making a Palestinian State quickly self-supporting. Guilford initiated and funded a program called "The Arc: A Formal Structure for a Palestinian State." It outlines how a high-speed 140-mile interurban rail line between Gaza and the West Bank can be built as a catalyst to generating jobs, housing and business development.

The study was presented to President Clinton, President Bush, the European Union, and the Palestinians. The Glazers report that these recipients, as well as Japan and Saudi Arabia, are very much interested.

To Guilford Glazer the businessman, the plan is a matter of common sense. But participating in 60 years of Israeli history has shown him that vision comes first. "It's just a dream, but you have to work at your dreams," he says.

David Ben-Gurion himself worked at the dream that became Israel, and few expected the university that bears his name to become one of Israel's finest and world-renowned in many fields.

The latest incursion into Gaza by Israel, which took place shortly after the Glazers were interviewed, is a setback. But Israel was born from the impossible, Guilford reminds us.

"We must help the Arab world with industrial development so they will have jobs, housing and food on the tables for their families. Jobs are the vehicles for keeping peace." ■



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- Attend a festive dinner hosted by BGU's Student Association.
- Observe the innovative role of research and science with the President's Prizes for Outstanding Scientific Achievement.
- Meet intimately with faculty and students; visit labs and learn about their cutting-edge research.
- Participate in a panel discussion on Israel's "Brain-Drain" and BGU's Response in Recruiting the Best and the Brightest.
- Witness the moving conferment ceremony of honorary doctorate degrees.
- Listen to scholarly and entertaining lectures.
- Discover BGU's role in renewable energy.
- Enjoy a gala dinner celebrating art and song with honored guest Prof. Amos Oz and singer Ronit Ophir.

For additional information, please contact Lisa Chandler at [lchandler@aabgu.org](mailto:lchandler@aabgu.org) or 212-687-7721.

