Dear Friends,

November 9th marks the 35th anniversary of the University’s official creation. Thirty-five years young thanks to our dynamic students and faculty. They are committed – despite those who would use terror to demoralize and defeat us – to dedicating themselves daily to the pursuit of excellence.

Even David Ben-Gurion – who spoke about creating Oxford in the Negev – would be hard-pressed to recognize the University today. Much of this success is an indirect result of our location – the lure of the frontier, the unlimited realm of possibility of creating something new that attracts a special kind of person who is willing to whole-heartedly take up the challenge.

These academic pioneers have turned living in the desert into an advantage, maximizing the potential of the local population and the physical terrain to become world-leaders in fields such as water resource management, arid land agriculture and multi-cultural healthcare. An emphasis on learning in context has given us a cutting-edge in fields like Hebrew literature, Jewish thought and social work. We have succeeded in attracting Israel’s most outstanding students, raising our academic thresholds while creating an environment that encourages community involvement.

Unquestionably, the formative experience of creating new academic models has left an indelible imprint on our collective personality. Ben-Gurion University of the Negev is the place where things can be done differently, have been done differently, and will be done differently. This has positioned the University to be uniquely adept at anticipating emerging technologies and new fields of research in areas such as nanotechnology, biotechnology, informatics and the cognitive sciences.

But, if we are to be prepared for the rigors of international competition and to go beyond the expected, we must do more than be good: we must be exceptional. This means we must commit ourselves anew – despite massive government cutbacks – to meeting the challenges of the future with a significant investment in research – for everything from the most sophisticated laboratory equipment to attracting the best faculty possible. We must demand the highest standards of scholarship from our academic staff and provide them with the tools to compete in the international arena.

Next year the new train station will open directly across from the University and adjacent to the proposed 150-acre hi-tech park. It is here that we hope that the Israeli government, the organized Jewish world and enterprising entrepreneurs will capitalize on the potential of our outstanding research staff and skilled graduates to make a hands-on investment in the Negev and create new businesses.

This is our strength and our vision: Cutting-edge research and serious scholarship shaped by a concern for the community. None of this would be possible without the vision and leadership of our worldwide community of friends and supporters. For this, I thank you wholeheartedly, while at the same time I call upon you to strengthen and build upon your commitment to help us now, at this critical time, to be all that we can be. Together we can realize the Zionist dream – for a safe, economically strong, socially-just Israel.

In partnership and friendship,

Prof. Avishay Braverman
The 34th Annual Board of Governors Meeting
A series of festive events in Eilat and Beer-Sheva marked the 34th Board of Governors Meeting this year. More than 200 Board members and guests arrived for the Meeting which, for the first time, began over the weekend in Eilat, where they had the opportunity to become more intimately acquainted with the University’s students and faculty as they relaxed in the lobby of the hotel, lounged by the pool, or ventured outside to join the boat cruise or one of the jeep tours in the nearby mountains. The participants in the jeep tours braved the hot sun as they wove up the narrow trails before arriving at an outlook post from which they enjoyed a breathtaking view of the Gulf of Eilat and the mountains and towns on the other side of the borders with Jordan, Egypt and Saudi Arabia. A Shabbat dinner took place in the presence of the Mayor of Eilat, Meir Yitzhak Halevy.

The week’s official agenda began with the working Board Committee Meetings, which were held at BGU’s newest campus in Eilat. At a festive evening, Lord Weidenfeld of Chelsea, outgoing Chairman of the Board of Governors, received a Lifetime Achievement Award, the University’s highest honor that recognizes individuals who have demonstrated “unique and steadfast commitment to the University through the years.” Weidenfeld, who has retired from his position after eight years and has taken on the mantle of Honorary Chairman, recollected much of his activity on behalf of the nascent State of Israel and in the 56 years of its existence, during which time he has advised Prime Ministers and Presidents. He emotionally expressed his hopes to continue being a part of the BGU family.

On the trip northwards from Eilat, a stop was made at Kibbutz Ketura to see the cultivation of algae based on the research of Prof. Sammy Boussiba of the Jacob Blaustein Institute for Desert Research. The red pigment produced by the algae is used commercially to give salmon its pink hue.

The guests braved unusually intense heat and sandstorms during their journey to take part in the dedication ceremony of the George Evens Family Auditorium, attended by Corinne Evens of France, representing the family, at the Sede Boqer campus. On the same occasion, they listened to a presentation by Prof. Avigad Vonshak, Director of the Blaustein Institute, on innovations and future development at the Institute. Vonshak proudly introduced four students from the Albert Katz International School for Desert Studies, among them, Dana Rassas from Jordan. Taking part was Roy Zuckerberg of the United States, incoming Chairman of the Board of Governors, who envisioned and is funding the Institute for Water Sciences and Technologies, and has consented that it bear his name.

After arriving in Beer-Sheva, the guests came to the campus to hear Prof. Sir Partha Dasgupta of Cambridge University deliver the Annual Memorial Lecture in honor of the late Prof. Adam Klug, who was a member of the Department of Economics, titled “On the Wealth of Nations: The Ecological Aspects of Sustainable Development.” The
The Weekend in Eilat

At a look-out point on Yehoram Mountain

Celebrating at the Eilat Ranch

On the Jeep tour
lecture was attended by family members, including Adam’s father, Nobel laureate Prof. Sir Aaron Klug of Cambridge University.

Following the lecture, participants proceeded to the presentation ceremony of the Spitzer Prize for Excellence and Innovation in Social Welfare in the Negev, where the guests of honor were Charlotte and Jack Spitzer of Seattle. (This was Jack’s last visit to BGU. Just a few weeks later he passed away unexpectedly in Seattle (see p. 38). The prize was awarded this year to Irit Inbar for her initiative and innovativeness in her work as Director of the Social Services Department of the Bnei Shimon Regional Council. Taking part in the ceremony was Prof. Alean Al-Krenawi, recently-elected Chairman of the Charlotte B. and Jack J. Spitzer Department of Social Work, who headed the Spitzer Prize Committee. (Al-Krenawi is one of the first two Bedouin to become chairman of an academic department at the University. Until recently, he served as Director of the Center for Bedouin Studies and Development. Dr. Aref Abu-Rabia, also a Negev Bedouin, has been elected Chairman of the Department of Middle East Studies.) On the same occasion, the Prize in Memory of Frannie Ackerman was awarded for the first time. Maya Blumenfeld, a second-year student of social work, was recognized for her work at the Barzilai Hospital in Ashkelon, where she counsels seriously ill patients. The prize is named in memory the late Frannie Ackerman, founder of the Spitzer Department and first recipient of the Spitzer Prize, and was awarded in the presence of members of the Ackerman family and her dear friends, the Spitzers.

The day culminated with the Student Evening, held near the University campus on the lawn of the AABGU Dormitories in the Dalet neighborhood, which were entirely funded by the American Associates. The evening was sponsored by Alice and Seymour Powers, Aileen and Jules Whitman and Barbara and Roy Zuckerberg of the United States. Towards the end of the evening, after dinner and a show, members of the Board and guests were invited by the students to their dormitory rooms for coffee and the opportunity to show the dorms to their benefactors.

At the Opening Plenary Session, Roy Zuckerberg was officially elected as the new Chairman of the Board of Governors, while outgoing Chairman, Lord Weidenfeld of...
Aharon Yadlin of Israel and Suzanne Zlotowski of Switzerland chaired the Student Affairs Committee Meeting.

Eric Charles of the U.K. and BGU Director-General David Bareket at the Finance Committee Meeting.

At the Academic Affairs Committee Meeting, from left: Aliza Ben-Tal, Liaison Officer to the Board of Governors, Rector Prof. Jimmy Weinblatt, President Avishay Braverman, Prof. Philip Needleman of the USA, Academic Secretary Avraham Bar-On.

At the Associates Affairs Committee Meeting. Standing, from left: Barry D. Lipson, Q.C., President, Canadian Associates; Dr. Ute Deichmann, outgoing President, German Associates; drs. Sabine Cohen, Vice-President, Dutch Associates; Lic. Osvaldo Schwartz, President, Association of Argentinean Friends of BGU; Ing. Pedro Dondisch, President, Mexican Associates; Michel Halperin, Atty., President, Swiss Friends of BGU; Harold Paisner, Chairman, Ben-Gurion Foundation, U.K.; Gérard Worms, Chairman, French Friends of BGU. Seated, from left: Dr. Israel German, BGU Senior Vice-President; President Prof. Avishay Braverman; Roy J. Zuckerberg, Chairman of the Board of Governors; Zvi Alon, Vice-Chairman of the Board of Governors and Chairman of the AABGU Board.

Committee Meetings at the Eilat Campus.
Chelsea, was elected Honorary Chairman of the Board. Guests of honor at the session were Finance Minister Benjamin Netanyahu and President of the European Academy of Sciences and Arts Prof. Dr. h.c. Felix Unger of Austria, who greeted the audience. Addresses were given by Lord Weidenfeld of Chelsea, President Avishay Braverman, Rector Jimmy Weinblatt and Prof. Shlomo Grossman, Chairman of the Planning and Budgeting Committee of the Council for Higher Education.

An announcement was made of the winners of the Second Goldstein-Goren International Prize for the Most Important Book in Jewish Thought 2001-2003, by Prof. Haim Kreisel, Chairman of the Goldstein-Goren International Center for Jewish Thought. The recipients are Prof. Peter E. Gordon of Harvard University for *Rosenzweig and Heidegger: Between Judaism and German Philosophy* (University of California Press, 2003) and Prof. Akiva Friedman of Tel Aviv University for *Maimonides, the Yemenite Messiah and Apostasy* (Ben-Zvi Institute, 2002, in Hebrew).

Under the title “Peace Initiatives and Surveys Under Fire,” a discussion on the current realities of the region was held. This followed a presentation of “Israeli and Palestinian Public Opinion Since Camp David 2000: Highlights From a Joint Project” by Prof. Dan Bar-On, Chairman of the Department of Behavioral Sciences; Dr. Yaacov Shamir of the Department of Communication and Journalism and The Truman Institute for the Advancement of Peace at The Hebrew University of Jerusalem; and Dr. Khalil Shikaki, Director of the Palestinian Center for Policy and Survey Research in Ramallah. Special guests included Leader of the Opposition, former Prime Minister and Nobel Peace Prize laureate MK Shimon Peres, and the former Prime Minister of Northern Ireland and Nobel Peace Prize laureate Rt. Hon. David Trimble, MP MLA. Respondents were Dr. Uzi Arad, former Foreign Policy Adviser to the Prime Minister, of the Interdisciplinary Center, Herzliya, and Prof. Amos Oz of the Department of Hebrew Literature at BGU.

This year was characterized by the strengthening of ties between students and Board members as they spent many hours together, either meeting spontaneously or at specific events involving the students. The highlight was the dedication of the Zlotowski Student Administration Building, held in the presence of Suzanne Zlotowski, “mother of the students,” and Adelene Zlotowski. The impressive building, built above the existing Zlotowski Student Center, consolidates student activities.
Irene Kreitman (right) and Neil Kreitman (second from left) speak to students in their new dormitory apartment.

Student Evening at the New AABGU Dormitories

Members of the Zlotowski Student Dance Troupe perform for guests on the lawn of the AABGU Dormitory Complex.

Visiting with students in their dormitory apartments.
and services into one central location on the Main Campus. Suzanne Zlotowski was deeply moved at the dedication ceremony. “It’s been 25 years since I first became involved with Ben-Gurion University, and I’m so happy when I see the University growing and can share these moments with the students,” she said.

Another event was the inauguration of Hillel on campus by a Town Meeting with students on “The Future of the Jewish People.” Taking part were Edgar M. Bronfman, Sr., USA, President of the World Jewish Congress and Chairman of the Board of Governors of Hillel: The Foundation for Jewish Campus Life; Avraham Infeld, USA, President of Hillel International; and Prof. Amos Oz. Also present were American Board of Governors member Benjamin Breslauer and his daughter Michele, a member of the Hillel Board of Directors, both of whom helped to bring Hillel’s existence at BGU into fruition (see page 29).

A host of special friends and dignitaries were recipients of this year’s Honorary Doctoral Degrees.

Nina Brink is an innovator in the field of hi-tech and mass telecommunications and is a managing partner of Renessence Ventures, a private equity firm in Amsterdam. She promotes numerous causes in the fields of health, ecology, the environment and children’s rights. She also provides support to graduate students at BGU through the Brink Fund for Excellence.

Edgar M. Bronfman, Sr. is President of the World Jewish Congress and Chairman of the Board of Governors of Hillel: The Foundation for Jewish Campus Life. He is involved in numerous philanthropic endeavors and is active in the advancement of Jewish education and the fostering of Jewish pride.

Prof. Beno Eckmann is an internationally-renowned mathematician. He founded and headed the Institute for Mathematical Research at the Swiss Federal Institute of Technology in Zurich for two decades and oversaw its maturation into a prestigious center for international cooperation. He envisioned and supported the establishment of the Center for Advanced Studies in Mathematics at Ben-Gurion University.

Ida Fink is an accomplished author who writes in her native tongue of Polish. After surviving the Holocaust in Poland, she came to Israel. Her stories describe the world of the Jewish community in Poland on the eve of destruction and their struggle with the disaster brought upon them by the Holocaust. Her books have been translated into many languages and she has received prestigious awards, including the Anne Frank Prize and the Yad Vashem Prize.

Prof. Alain Finkielkraut is a renowned philosopher and essayist at the Ecole Polytechnique in Paris. He stands out among the European intellectuals of our time as a result of his integrity, determination and uncompromising search for the truth. The only son of a Holocaust survivor, he examines the issues of memory and the construction of a Jewish identity after the Holocaust and is deeply supportive of the Jewish people and the State of Israel.

Dr. Richard D. Klausner is Executive Director of the Global Health Program of the Bill & Melinda Gates Foundation in Seattle. He is a doctor and researcher and laureate...
At the Adam Klug Annual Memorial Lecture. From left: Prof. Jimmy Weinblatt, Prof. Sir Aaron Klug, Prof. Sir Partha Dagsupta, Prof. Avishay Braverman, Prof. David Wettstein, Chairman of the Department of Economics

At the Opening Plenary Session, from left: MK Shimon Peres, Lord Weidenfeld of Chelsea, Finance Minister Benjamin Netanyahu, President Avishay Braverman, Rt. Hon. David Trimble MP

Newly-elected Chairman of the Board of Governors Roy Zuckerberg takes the podium

At the panel discussion on “Systems Biology: A New Approach.” From left: Morris Kahn, Prof. Raymond Dwek, Dr. Leroy Hood, Prof. Aaron Klug, Prof. Philip Needleman

At the Adam Klug Annual Memorial Lecture. From left: Prof. Jimmy Weinblatt, Prof. Sir Aaron Klug, Prof. Sir Partha Dagsupta, Prof. Avishay Braverman, Prof. David Wettstein, Chairman of the Department of Economics
of prizes in molecular biology. He spearheaded the battle against cancer in the United States as head of the National Cancer Institute at the National Institutes of Health. He actively promotes accessibility to advanced medicine for all.

Benny Landa is former Chairman and founding CEO of Indigo, the first company to produce a digital offset color printing press. He now serves as Strategic Advisor to the CEO of Hewlett-Packard following its acquisition of Indigo. He is a generous philanthropist who, together with his wife Patsy, founded the Landa Fund, which enables gifted students of limited means to acquire higher education at Ben-Gurion University and other academic institutions in Israel.

Prof. Sasson Somekh was Chairman of the Department of Arabic Language and Literature at Tel Aviv University and headed the Israel Academic Center in Cairo. A member of the Academy of the Hebrew Language, he has also dedicated his life to the research of modern Arabic literature. He is a gifted translator and editor as well as an educator and has authored many books.

The Rt. Honorable David Trimble MP is an esteemed politician and negotiator who served as leader of the Ulster Unionist Party and then as First Minister of Northern Ireland. His belief that disarmament is the only pathway to peace underlay his efforts that culminated in the Good Friday Agreement, for which he subsequently became a co-recipient of the Nobel Peace Prize.

This year’s Hyman Kreitman Memorial Lecture was given on the very timely topic, “The New Antisemitism,” by Honorary Doctorate recipient and renowned French philosopher Prof. Alain Finkielkraut, in the presence of Irene Kreitman and Neil Kreitman, and the ensuing discussion was moderated by Prof. Ilan Troen, Director of the Kreitman Fellowship Foundation.

The Zlotowski Annual Lecture was given by Prof. Elkhonon Goldberg, Clinical Professor of Neurology at the New York University Medical Center, who spoke on “How the Brain Decides in Ambiguous Situations.” The lecture was held in the presence of Suzanne and Adelene Zlotowski and the guest was introduced by Prof. Fred Libersat, Chairman of the Zlotowski Center for Neuroscience.

A panel discussion on “Systems Biology: A New Approach,” chaired by Director of the Oxford Glycobiology Institute, Prof. Raymond Dwek, drew a large audience, consisting of members of BGU’s scientific community and the Board of Governors. Dr. Leroy Hood, President of the Institute for Systems Biology in Seattle, enlightened the gathered attendees on “Deciphering Biological Complexity, Catalyzing Predictive and Preventive Medicine and Engendering Global Partnerships.” Participating in the ensuing discussion with BGU scientists were Prof. Sir Aaron Klug of Cambridge University and Prof. Philip Needleman, Assistant Dean for Special Projects at the Washington University School of Medicine and a member of Prospect Venture Partners of Palo Alto, California.

Following the Closing Plenary Session, presided over by David...
Unveiling the new names on the Founders Wall. From left: Esther and Michel Halperin from Switzerland, Dr. Yossi Friedman from the USA, Noemi Halperin from Switzerland, President Braverman

At the Chair inauguration ceremony. From left: Eng. Max Lichtenberg, Chair incumbent Dr. Klaris Riesenbert, Dr. Agneta Golan, Dr. Gabi Lichtenberg, Dr. Yani Almog

Prof. Klaus Schwab speaks at the panel discussion on “Turning Adversity into Opportunity: Towards Economic Development in the Middle East,” chaired by Eric Benhamou (seated)

Prof. Rivka Carmi, Dean of the Faculty of Health Sciences (left), presents a token of appreciation to Rear Admiral Dr. Susan Blumenthal at the conferment ceremony of M.D. degrees
Brodet, Chairman of the BGU Executive Committee, and the newly elected Chairman of the Board, Roy Zuckerberg, a discussion was held with Israeli business leaders on “Turning Adversity into Opportunity: Towards Economic Development in the Middle East.” The discussion was moderated by Vice-President of the Board of Governors, Eric Benhamou of the United States, who is President and CEO of 3Com Corporation. Opening remarks were delivered by Dr. Yossi Vardi, Chairman of International Technology, Israel, and the guest speaker was Prof. Klaus Schwab of Switzerland, Executive Chairman of the World Economic Forum.

Sixty-two new names were unveiled on the Founders Wall in the presence of a large contingent of friends and supporters from around the globe.

At another ceremony held during the week, BGU alumnus and AABGU National Board member Dr. Joseph (Yossi) Friedman presented the annual Dr. Joseph Friedman award to two outstanding students at the Center for Advanced Mathematics, after which, renowned Swiss mathematician and Honorary Doctorate recipient Prof. Beno Eckmann gave a guest lecture. A native of Beer-Sheva, Friedman is a graduate of BGU’s Department of Mathematics and supports the Center, which was established through the foresight of Lis Gaines, President of the American Associates.

A farewell dinner celebrating BGU’s involvement in the community was held at the newly-renovated Negev Museum in the Old City of Beer-Sheva, and was attended by local dignitaries and representatives of institutions active in the Beer-Sheva neighborhoods. A performance by the “HaBarvaz” theater group of the Community Action Unit was given during the course of the evening. Greetings were delivered by Yaakov Terner, Mayor of Beer-Sheva, Elie Elalouf, Director-General of the Sacta-Rashi Foundation, and Raya Strauss Ben-Dror, Chairperson of the Israeli Friends of BGU.

Several events were held during the week of the Board of Governors Meeting which highlighted the Faculty of Health Sciences’ 30th anniversary celebrations.

The Dr. Gabi and Eng. Max Lichtenberg Career Development Chair in Infectious Diseases was inaugurated in the presence of the donors, Dr. Gabi and Eng. Max Lichtenberg of the United States and Israel, and Chair incumbent Dr. Klaris Riesenberg of the Faculty of Health Sciences, who specializes in internal medicine.

Following presentations of local community health activities by Israeli students at the Joyce and Irving Goldman Medical School and of health care conditions and activities in Kenya during field work by soon-to-be graduates of the Medical School for International Health in collaboration with Columbia University Medical Center, a special lecture: “Grand Challenges in Science and Technology for Global Health” was delivered by Honorary Doctorate recipient Dr. Richard Klausner, M.D., Executive Director of the Global Health Program at the Bill & Melinda Gates Foundation. The session was moderated by Prof. Rivka Carmi, Dean of the Faculty of Health Sciences. Also speaking was Rear Admiral Dr. Susan Blumenthal, Assistant Surgeon General and former Deputy Assistant Secretary for Women’s Health in the US Department of Health.

Later that week, Dr. Blumenthal was the guest of honor, together with Prof. Haim Doron, former CEO of the Clalit Health Services, at the Conferment Ceremony of M.D. Degrees on the 22nd Class of the Joyce and Irving Goldman Medical School. At the same ceremony, the physician’s oath was taken by the students of the incoming 30th class.

The Medical School’s festivities for the week concluded with a festive charity concert performed by the Israel Sinfonietta Beer-Sheva. Proceeds from the concert were dedicated to the community activities of the Medical Students Association of the Negev. During the evening, Certificates of Appreciation were presented to representatives of the Goldman and Deichmann families.

**SAVE THE DATE**

35th Annual Board of Governors Meeting
May 27 - June 2, 2005
Farewell Dinner Marking BGU’s Commitment to the Community

Beer-Sheva Mayor Yaakov Terner

Elie Elalouf, Director-General of the Sacta-Rashi Foundation

Raya Strauss Ben-Dror, Chairwoman of the Israeli Friends of BGU and Lloyd Goldman, Vice-President of the American Associates

The “HaBartaz” Theater Group of the BGU Community Action Unit
ingle atom/molecule science is a hot field, exclaims Dr. Ron Folman of the Department of Physics, pointing out that just in his small sub-field of ultra cold atoms, two Nobel prizes have been awarded in recent years. Folman is passionate about his research, which allows him to trap and manipulate individual atoms.

Calling nanoscience the “new scientific frontier of the 21st century,” he is happy to be part of a new interdisciplinary team of BGU scientists who are conducting research at the Ilse Katz Center for Meso- and Nanoscale Science and Technology.

Nanoscience in general, Folman says, is all about being able to control and utilize individual atoms or molecules. As nanoscience develops, he enthuses, we’ll be able to build totally new materials, such as lightweight and super-strong materials for planes or even “smart” clothing that will react to body temperature or change its color according to the environment. “It’s just like playing with Lego: once you are able to take individual pieces of different colors and put them together, you can practically build whatever you want.” He adds: “Nanotechnology is allowing us to go down in size while going up in complexity and functionality.”

Medical advances will be even more amazing. Right now, using micro – not nano – technology, a tiny camera can be dispatched as a small pill into a blood vessel or organ to transmit images. Coming soon: nanotechnology “smart dust” the size of dust particles that will not only sense, analyze and transmit data, but will probably have computational and mechanical capabilities for cleaning organs, removing cancerous material and targeting drug delivery. “Imagine tiny spaceships with motors and hands going around the body and taking care of us,” Folman says.

In his own sub-discipline, Folman is part of a team developing a dictionary that will convert human language to atom language, enabling commands such as telling the atom to go left or right, to sense, or even calculate. Folman explains: “A separated atom is a very unique entity. For example, it can identify fluctuations in the Earth’s density, allowing us to find underground minerals or locate magma before a volcanic eruption. Ultra-cold atoms can power navigational systems by sensing acceleration or make the GPS system more accurate by replacing its clocks with more accurate clocks. Atom-driven quantum computers will be faster than modern super-computers, and ultra-cold atoms may form the memory of quantum cryptography which will provide the basis for absolutely secure communications.”

Although he was offered a position at Tel Aviv University, Folman was lured to BGU by his “love of the Negev.” He arrived just one year ago and his primary aim now is to improve the infrastructure for nanoscience in order to fulfill “the University’s aim to become a center of excellence in nanotechnology.” Aside from enabling cutting edge science, this will attract hi-tech industry to the Negev. Folman often quotes David Ben-Gurion who said that it is in the Negev where the nation of Israel will be tested.

That fits into the current national goal as well, with the recently inaugurated Israel Nanoscience National Initiative aimed at preparing the country to be a major player in the nanoscience industry, just as it has been a major player in optics, telecommunications and computers. The expectation, as Folman puts it, is that over the next 10 to 15 years, nano will move out of the research lab to become a driver of economic growth.

That gives nanoscience research a limited window of opportunity to develop and prove itself. In order to situate BGU as a major “nano-player,” what is needed right now is funding, to give the University a “critical mass” of capability. Folman and his team recently won a five-year $1 million grant from the German Ministry of Education and Research, as well as other European and Israeli grants, but the University “still lacks some essential nanoscience infrastructure,” he says.

Yet what has already been created is impressive. Committed to nanoscience, the University established the Ilse Katz Center for Meso- and Nanoscale Science and Technology and invested in both equipment and personnel. A new
state-of-the-art building to house the Center is currently in an advanced planning stage, additional facilities for the Center are being established in other campus buildings and an advanced microscopy lab was recently inaugurated. The Center will contain the Nano-Fabrication Facility, which will develop processes and structures that do not exist elsewhere in Israel, such as surfaces for the manipulation and sensing of atoms, ions and molecules. Such surfaces, which will include, for example, nano-optics – photonics – may contribute to a variety of fields such as bio sensors, for homeland security and medical applications, or quantum technology, for navigation systems or super computers. Another very important field in which the facility is already involved is water purification and desalination.

Meeting big challenges is familiar to Folman. His father, a Holocaust survivor, arrived in Israel at age 14 with hardly any schooling and became a professor of biology at The Hebrew University. His mother was a passenger on the famed refugee ship, Exodus, and went on to become a doctor of medicine. Folman spent seven years in the Israel Air Force as a fighter pilot, during which time he earned his B.Sc. degree. He then taught high school in the Negev development town of Yeruham as a volunteer, helping to show students how they might, despite obstacles, realize their dreams.

After earning his Master’s and Doctorate degrees at the Weizmann Institute of Science, Folman spent five years in Europe, including a post-doctoral position at the University of Innsbruck and as a researcher at the University of Heidelberg. His decision to return to Israel was “not a career move,” he says, but a response to his emotional connection to the country and the dream he shares of transforming the Negev. He and his wife, a lawyer and a Ph.D. candidate in international law at Tel Aviv University, have three children. He invites people to visit his web site: www.bgu.ac.il/atomchip
Sometimes the immune system, whose job is to protect the body against disease, itself becomes an aggressor, causing illness instead of defending against it. Prof. Itzhak Wirguin, who teaches neurology at the Joyce and Irving Goldman Medical School and at the Medical School for International Health in collaboration with Columbia University Medical Center, is learning how to fight back.

Wirguin, incumbent of the Dr. Helena Rachmanska-Putzman (née Rancman) Chair in Neurology, currently heads the Neurology Department at the Soroka University Medical Center. The key illness under study by Wirguin’s team is Guillain-Barré Syndrome (GBS). This disease, which manifests itself by a reversible muscle weakness of varying severity, has replaced Polio as the most common cause of acute flaccid paralysis. It can strike a person of any age and may appear after a bout of infection. In its most severe form, GBS can cause complete paralysis, even affecting breathing and other functions controlled by the autonomic nervous system. It becomes a life-threatening disease in up to 25 percent of cases.

The prevailing hypothesis attributes GBS to an immune attack on the peripheral nerves. Wirguin’s research on Guillain-Barré is aimed at determining exactly how the malady is immune-mediated. In the case of bacterial diarrhea, for example, bacterial structures similar to those of nerves have been identified. Wirguin was involved in the characterization of these culprit epitopes and in demonstrating that these bacterial molecules could actually induce antibodies capable of attacking the nerves. After that –

“Wirguin’s preliminary goal is to identify the molecules that affect neural transmission in inflammatory process”

---

Battling The Body To Protect The Body

Prof. Itzhak Wirguin
since only one in 10,000 patients who have these particular bacteria in their system actually contracts the illness—his goal is to find out exactly what mechanism makes the immune system react this way and what prevents the autoimmune attack in the vast majority who do not develop GBS.

Currently, no definite cure exists for any auto-immune disease. “Therapy for these illnesses,” laments Wirguin, “is non-specific and aimed merely at weakening parts of the immune system in order to alleviate symptoms and slow the progress of the disease.” Meanwhile, he continues, the medications used to help control or slow these illnesses have side effects that interfere with the immune system in other, deleterious ways.

A newly established clinic for research on, and patient care for, neuro-immunologic diseases is at the center of Wirguin’s work in this area. The clinic treats illnesses such as multiple sclerosis (MS). MS is an incurable disease with some features resembling neurodegenerative disorders that causes severe impairment of the central nervous system and that develops, researchers believe, out of a malfunction of the immune system. 

The mechanism by which the disease progresses—causing difficulties in coordination, vision and muscle-control that may lead ultimately to severe incapacity—is not yet understood. Wirguin, however, hopes that lessons which can be learned from the GBS experiments may shed light on the pathogenesis of MS, as both illnesses affect primarily the myelin sheaths around the nerve fibers. In both cases, nerve conduction may be impaired as the result of certain soluble factors secreted by the inflammatory process triggered by autoimmune reactions.

If this theory turns out to be correct, Wirguin muses, novel therapeutic means might be developed from isolating these villainous immuno-stimulant molecules. Meanwhile, on a parallel track, he is continuing to seek the chemical molecules that can help protect nerves from immune-system attack.

So far, his team of researchers, which includes a basic scientist trained in immunology and molecular biology, and neurologists and scientists from the neurosurgery and physiology departments, is still not close to overcoming MS, he acknowledges. However, they may have identified a promising “molecular mimicry” between bacteria and nerves, adding only, “We have some novel ideas that we are working on.”

Much of the new neuroimmunology unit’s research uses laboratory rats to attempt to establish animal models that can provide understanding of the mechanism of nerve damage and allow researchers to monitor compounds which may alleviate this damage. The clinic will, Wirguin hopes, also develop into a much-needed center for neuropathy, attracting the best clinicians to diagnose and treat patients.

Why this field? “I always found fascinating the notion of the immune system attacking the body,” says Wirguin, who earned his M.D. from The Hebrew University in 1980. His interest in immunology continued to blossom during his medical residency at Hadassah Hospital. He wrote his thesis on the subject before doing post-doctoral work at Columbia University in 1992. His administrative role as head of the Department of Neurology now takes time he would rather spend in the laboratory, clinic or classroom, he says—but that problem, only time will cure.
A record number of academic degrees were presented to proud graduates at three separate commencement events held on consecutive days at the end of the academic year. Altogether, 4,667 degrees were earned in the five Faculties of the University and the Albert Katz International School for Desert Studies. This year, 1,860 were from the Faculty of Humanities and Social Sciences; 1005 from the Faculty of Engineering Sciences; 479 from the Faculty of Health Sciences; 463 from the Faculty of Natural Sciences; 842 from the School of Management and 18 from the Albert Katz International School. Since its first graduation ceremony in 1970, the University has bestowed 56,403 academic degrees.

Seventy-six graduates of the Kreitman School of Advanced Graduate Studies received their Ph.D. degrees. These included 23 from the Faculty of Natural Sciences; 22 from the Faculty of Engineering Sciences; 12 from the Faculty of Health Sciences; and 19 from the Faculty of Humanities and Social Sciences.

Speaking on behalf of the graduates, Adi Ronen from the Faculty of Natural Sciences spoke about the University that had become “a second home” for most of the doctoral students. “A significant portion of us didn’t just come here for the excellent academics, but because we heard that here the place is different, that the language of learning is different because of the special character of the University and the city of Beer-Sheva.”

Dr. Bilha Paryente of the Department of Behavioral Sciences receives her diploma from Prof. Zvi Priel, Dean of the Kreitman School of Advanced Graduate Studies.
The third graduating class of BGU’s Medical School for International Health in collaboration with Columbia University Medical Center proudly received their diplomas at a festive ceremony. Among the members of the class was a Tibetan student who came to BGU as the result of a request made by the Dalai Lama when he visited the University five years ago to receive its Ecumenical Award.

Over half of the class were women, while one-fifth of the members were the offspring of doctors. The BGU-CU M.D. program is an innovative joint venture between Columbia’s Health Sciences Division and Ben-Gurion University. The program’s curriculum encompasses humanitarian emergencies and relief medicine, refugee health and preventive medicine for diverse populations. In addition to the basic medical sciences and clinical rotations taught in American medical schools, BGU-CU M.D. students also learn about cross-cultural medicine, healthcare economics, epidemiology, biostatistics, nutrition and environmental health.
“As the situation stands now,” says Yosef, “some employees have pension plans in the workplace, others don’t – it depends on the company or the employer.” More specifically, 40% of the employees in Israel do not have a pension plan at their place of work. What’s more, he says, 33% of the Israeli population is living below the poverty line, one-third of whom are elderly.

“Pension reforms were needed to fill up the massive national debt,” explains Yosef. Minister of Finance Binyamin Netanyahu has recently implemented some major economic reforms, he says, but because the pension funds were in the red, there is no money to pay to retirees. Something had to be done. Spivak met with Netanyahu and advised him on ways in which to reach a viable solution.

At present, employees without an employee pension plan do not receive an annuity when they retire. They only receive a small monthly payment from the National Insurance Institute of Israel. Those who are self-employed can take out their own plan so that after they retire, they can count on an annuity. Employees can do that as well. But, as Yosef points out, for those people who do not earn high wages, it is difficult to pay into a personal pension fund each month.

To make matters worse, he adds, some companies work through outsourcing – employing freelance workers for 11 months, then firing them and hiring new people to avoid having to pay costly employee benefits. All this will change with the new law.

The law will oblige all employers to pay into a pension fund. And it will oblige them to pay employees a pension no matter how long they have worked for the firm. The provision to the pension fund will be 7.5% instead of the current 6% offered in other pension plans and 5% in insurance plans. The government will provide insurance for this annuity payment through special bonds earmarked for this pension fund. These designated bonds will guarantee a specified rate to ensure that the money will be available when the time comes to use it.

According to Yosef, the new law will be a win-win situation across the board. For one thing, older people, if they have enough to live on, will not be compelled to remain in the workforce and take the place of younger working people. Therefore, it is better for the
And it is better for the government, as it will reduce its expenditures on welfare and unemployment.

“This new law couldn't have come at a better time,” says Yosef. “Senior citizens in Israel constitute 10% of the population, and this will double by 2020. Now, there is a comparatively large percentage of young people working, so we can change the law and it will help most people. What’s more, the birth rate is decreasing worldwide. In Israel, it is even lower than in other countries. It is now 2.7%. By 2020, it will have dropped to 2.1%, on a par with the United States. In Sweden, for example, it will drop from the current 1.6% to 1.4% in 2020 and in Germany, from 1.8% to 1.5% in the same period.”

Thus the proportion of elderly people is going up while the birth rate is going down. At the same time, the retirement age is increasing. At present, the retirement age for men is 65 and for women, 60. By the end of 2004, it will be 65 and four months for men. The limit goes up by four months every year, explains Yosef. In six years time, the retirement age for men will be 67 and 62 for women. “Therefore, this is the optimal time to improve the demographic opportunity. If we delay it, we won't be able to implement the law, and it will drain too much from the national budget.

“Overall, this plan is good for the economy and good for the people,” concludes Yosef. “Employees will be more inclined to channel more money into the economy, secure in the knowledge that they will be assured a comfortable quality of life when they retire.”

Prof. Ismael Abu-Saad from the Department of Education and former Director of the Center for Bedouin Studies and Development has received the Outstanding Achievement Award of the University of Minnesota. The Award recognizes graduates of the Institution who have attained unusual distinction in their chosen fields or professions or in public service, and who have demonstrated outstanding achievement and leadership on a community, state, national or international level.

Prof. Herzl Aharoni from the Department of Electrical and Computer Engineering has been appointed a Fellow of the prestigious Institution of Electrical Engineers. The IEE is the largest professional engineering society in Europe and was founded in 1871 to promote the advancement of electrical, electronic and manufacturing science and engineering. Fellowships are awarded to those who have demonstrated successful leadership or outstanding service to the engineering profession.

Prof. Miriam Cohen from the Department of Mathematics has been appointed to the National Committee on Information Technology. Created under the auspices of the Prime Minister’s Office, the Committee will seek to establish policies and national goals that integrate information technologies for the benefit of all the citizens of Israel.
A researcher at the Institute for Applied Biosciences, Dr. Rachel Glicklis is engaged in a search for the ever-elusive cure for cancer.

As a glycobiologist, her work revolves around the study of sugar molecules. “Glycobiology,” explains Glicklis, “deals with the chemistry, biochemistry and biology of carbohydrates. Attached to proteins or serving as the core of a molecule or a side chain, these carbohydrates have many functions. One important role is promoting cellular signaling and recognition between different types of cells.”

After working in industry for several years in the fields of biotechnology and glycotechnology, the Beer-Sheva native returned to her alma mater last year, where she works with scientists from the Faculty of Health Sciences.

Currently, she is trying to identify unique glycoproteins on the surface of cancer cells that are able to escape the immune system. This is being done in collaboration with immunologist Prof. Ron Apte from the Department of Microbiology and Immunology.

Researchers have found that there are sugar variants in different types of cancer cells, which can affect their metastatic potential, explains Glicklis. “At BGU, we have a model for immunogenic and non-immunogenic cells that serves us in this quest,” she says.

“What we are trying to do now,” she elaborates, “is to see if there are any differences between the sugars in the two cells.” To that end, she and her group at the Institute are looking for particular glycomolecules in the cancer cells within the models. After extracting the protein from the membrane, they separate the glycoproteins on lectin – sugar-binding – columns.

“Membrane glycoprotein extracts from different cancer cells depict a different glycoprotein pattern upon two-dimensional electrophoresis. These differences may contribute to the immune system recognition of the cells, thus establishing their malignancy,” she says.

The second part of this process is to extract the distinct glyco-
proteins from the gel and sequence their glycans (sugar structures on the membrane-bound proteins) to see if they are different.

“Glycomolecules are known to have an effect on cancer cell malignancy,” says Glicklis, “but our approach to analyzing the glycoform structures is innovative.” First and foremost, she says, “we must understand what role the glycomolecules play in cancer.”

“We believe that sugars may play a role in cancer formation and progression,” explains Glicklis.

But even if you have a theory, you need the equipment to implement it, says the glycomologist. Fortunately, the University has the technology to pursue such theories and more. In fact, says Glicklis, the Institute for Applied Biosciences at BGU, made possible through the generosity of Edgar de Picciotto of Switzerland, has some of the most sophisticated equipment available in the world that allows for an accurate analysis of these molecules. Using these advanced tools, the researchers can sequence the glycans and the glycoproteins, allowing exact determination. Additionally, Dr. Yoram Tekoah, also from the Institute, has committed to the transfer of know-how to BGU following his post-doctoral stint at the Department of Biochemistry and the Institute of Glycobiology at the University of Oxford. The world-renowned Department and Institute in Oxford, headed by Prof. Raymond Dwek FRS, serve as the hub of such scientific activity for centers around the world, such as in the United States and Romania, while BGU serves as the Israeli representative.

In that vein, another project Glicklis and her colleagues are working on is the development of a glyco-chip with which they can sequence sugars. To that end, attaining a more rapid and accurate analysis for sequencing sugars can prove to be beneficial, as current methods take too long and require an abundance of materials and equipment. Additionally, the conventional protocols require chemical modification and many purification stages for successful analysis, she says.

What they want to do is design a chip that can help to verify the analysis. With this chip, they can build a glyco-database and provide services and information to industry, national and international universities, as well as medical centers.

Sugars attached to proteins are involved in almost every aspect of human biology and diseases. BGU’s ability to make rapid analyses of sugars, unique in Israel, is an important landmark for the University. Making such an effort to simplify the analysis will help them attain their goal which, says Glicklis, is to try to understand cancer and ultimately to prevent and cure this disease.

“"We believe that sugars may play a role in cancer formation and progression."”

Dr. Yossi Hatzor of the Department of Geological and Environmental Sciences received the 2004 Shamsher Prakash Prize for Excellence in the Practice of Geotechnical Engineering. This prize is awarded annually to young engineers and scientists from around the world who specialize in geotechnical engineering or geotechnical earthquake engineering, who have made significant contributions to the field and show promise of excellence. He has also been elected as President of the Israel Geological Society (see story on page 40).
The connection between biology and technology couldn’t be clearer to Dr. Amir Karniel of the innovative Department of Biomedical Engineering and a member of the Zlotowski Center for Neuroscience, who studies how the brain controls movement. Historically, he points out, the human brain has been compared to, or understood as, a cooling system, a switchboard, a computer and – most recently – an artificial neural network. “In every era, we use technology to understand the brain and vice versa,” he says.

The heady mixture of biology and engineering contributes not only to progress in both technology and biological research but, as Karniel combines them, also offers tools for medical care, with applications that can aid in the diagnosis, treatment and rehabilitation of severe limb and muscle injuries.

Born in Jerusalem, Dr. Karniel earned his Ph.D. from the Technion in 2000 and came to Ben-Gurion University in 2003 after post-doctoral studies at Northwestern University and the Robotics Laboratory of the Rehabilitation Institute of Chicago. He is currently at work on a project that illustrates what the marriage of biology and engineering can accomplish. In this project, in which he is one of a group of scientists centered at Northwestern University, the brain of a lamprey – a snake-like fish – is connected to a small photosensitive “robot” on wheels. Interpreting signals from the photosensitive receptors through the balance system of the lamprey’s disconnected brain, the robot can be stimulated to move toward light. Karniel hopes that this “brain-machine interface” study will provide clues for replacing brain-muscle connections in physically disabled individuals.

The brain is especially good at mapping position, velocity and direction – but not time, which is a computer’s strength – he explains. These special abilities of the brain allow it to find many ways to accomplish an action. An automatic hammer will repeat the same motion
The brain remains the controller, but the muscles are more complex motors than previously thought.
Dr. Michael Feige's primary subject is Israel's “collective memory” – how Israel looks at its past. But his most recent book is fully anchored in the present.

Two Maps for One Territory (Magnes Press, 2002, in Hebrew) is a detailed comparison of Peace Now and Gush Emunim, rival ideological movements offering alternative territorial, social, moral and ideological “maps” for Israel's future. Each group constructs its own meaning using different tools, explains sociologist-anthropologist Feige, who is a researcher at the Ben-Gurion Research Institute for the Study of Israel & Zionism on the Sede Boqer campus. “Gush Emunim uses the past, especially archaeology, as a window on present reality and therefore calls the West Bank by its biblical names, Judea and Samaria.” Peace Now, on the other hand, sees the same area “through the prism of science, demography and statistics. It insists on the present as foreground, asserting that the past veils, rather than reveals, the truth.”

Although Feige’s book deals with very current issues – and in so even-handed a manner that some reviewers objected to his apparent refusal to take a side – it does not stray far from one of his core academic interests: the changing place of archaeology in Israeli life. Feige traces Israel’s relationship with its archaeological heritage through three stages. In the State’s early years, annual conferences of the Israel Exploration Society constituted a kind of “ritual,” demonstrating the popularity and importance of archaeological research. Prime ministers, presidents and chiefs of staffs often attended and even presented scholarly papers. But starting in the 1980s, archaeology became a source of conflict between archaeologists and ultra-Orthodox Jews, who protested digging at sites that might have once contained a Jewish cemetery. While the influence of archaeology remained strong, the conflict “indicated a changing Israeli ethos,” Feige says.

The present phase, in the context of a decreased emphasis on archaeology in Israeli society, is its focused use by the settlement movement, which has “tapped into archaeology, both to support its claim to the land and as a metaphor about digging deep into the land to find meaning.”

In other research into collective memory, Feige has studied what he calls the “referential commemoration” of Yitzhak Rabin's assassination. With each passing year, he says, the country commemorates not only the figure of Rabin and his murder, but also how the murder itself has been commemorated. That is, attention does not center on the person and heritage of Rabin, but rather on reviving the feelings of the days after the assassination. This is partly
because Rabin’s legacy is problematic. “To the Left, he’s a hero, but maybe one who did not go far enough, while the Right worries that commemoration of his death will seem like, or turn into, support of his policies.”

Given the confusion and conflict inherent in commemorating the man himself, Feige speculates, Israelis have chosen instead to go back to the immediate days of mourning, to reconnect with their feelings then. It becomes a kind of self-commemoration.

Dr. Feige earned his Ph.D. from The Hebrew University in 1996 and, after a one-year post-doctoral appointment at the University of Pennsylvania’s Center for Judaic Studies in Philadelphia, arrived at BGU. He notes that researchers at the Ben-Gurion Research Institute offer the country’s only Israel Studies program (the equivalent of American Studies in American colleges) that includes a comprehensive curriculum about Israeli society.

Another of his projects was an article in a book, The Morning After – How Israel Will Look After Peace Arrives (Massada Press, 2000), edited by Meron Benvenisti, former deputy mayor of Jerusalem and a well-known writer on Israeli political and cultural issues. “My question,” says Feige, “was: How will we remember the night before? Will the so-called New Historians’ debunking of parts of the Zionist myth recede in importance? Will anyone beside the National Religious camp make a commemorative effort for the settlement endeavor, if settlements are evacuated?”

As Israel, in part prodded by the “new history,” takes another look at its past, the subject of collective memory grows in importance. Feige acknowledges that the issue is a difficult one, because “our past is our identity,” and the current reexamination involves a transformation of public consciousness, as well. “Not only is the classical Zionist narrative under attack and in decline,” he adds, “but the past is becoming sectorialized, with different groups holding different historical narratives. These have become ‘privatized,’ as groups express their own agendas.” For example, immigrants from the Former Soviet Union may see World War II primarily as a victory over Nazi Germany, rather than as the period of the Holocaust. In general, “many Israelis who were not here in the country’s formative years are less interested in myths that memorialize those early days.”

In short, says Feige, “The past is changing. Things that were once considered to be evident and everlasting truth are not considered so today. And only the future will tell how much the past will change.”

"As Israel, in part prodded by the ‘new history,’ takes another look at its past, the subject of collective memory grows in importance"
Fistuk Company is privately owned. Its main product is a colorful pouch attached to the safety belt in the car, which can be used by children to store small toys and games for use during their journey, and which can encourage them to buckle up. The product has been marketed, sales have been brisk, and it has been endorsed by Israel’s National Road Safety Authority. Published data show that the company is making sizeable profits and its future looks bright. Moreover, the company has forged business ties with a leading Israeli car rental company.

The shareholders, directors and employees are all 15 years old.

Fistuk Company was established as part of the “Young Entrepreneurs Israel” project. The vision of Young Entrepreneurs Israel – the local equivalent of Junior Achievement – is to expose young Israelis to the world of business and entrepreneurship through a unique program of “Learning by Doing.” Groups of school students form mini-companies that they have to manage from start to finish. This in turn requires that they operate as a team, delegate tasks, raise capital, choose a product or service, conduct a market survey, engage in production, marketing and sales, ultimately providing an annual report and finally liquidating their company after one year. The young entrepreneurs are guided by an instructor from their school as well as a representative of the commercial company that adopts them. The Fistuk Company operates under the guidance of the southern area coordinator of Young Entrepreneurs Israel, Ronit Gamliel, who is a graduate of BGU.

The project involves the Ministry of Education, all universities in Israel and leading private companies. At Ben-Gurion University, the Ira Center for Business, Technology and Society in the Department of Industrial Engineering and Management is actively engaged in providing academic and professional leadership to Young Entrepreneurs Israel. “We have here a combination of social responsibility on the part of the companies involved, which invest much of their workers’ time in the project, and fair and positive business competition. This genuinely reflects the vision of the Ira Center,” says Prof. Ehud Menipaz, founding Chairman of the Ira Center and the elected Chairman of the Public Board of Young Entrepreneurs Israel, Southern Region.

Fistuk Company came first in the regional competition and third out of 140 in this year’s annual national competition. Members of the company are all ninth-grade students at Kibbutz Yad Mordechai in the Negev. Last year, a group from a high school in Beer-Sheva placed first in the national contest. “Everyone can be a winner if they work hard and know how to develop their ideas,” says Menipaz.
Hillel: The Foundation for Jewish Campus Life – the largest Jewish campus organization in the world – was established this year at Ben-Gurion University. This is the third such center established in Israel and it was made possible through the generosity of the Helen Diller Family Foundation of the Jewish Community Endowment Fund (San Francisco Bay Area). After completion, this Center will provide much-needed space for faculty members and students.

Ofer Namimi, Director of the newly-opened Hillel, explains that “the organization offers Israeli students opportunities to explore and celebrate their Jewishness in a pluralistic environment.” Namimi, who previously served as Director of the Israeli Student Department for The Hebrew University Hillel, works closely with Dean of Students Ya’akov Affek and BGU’s Student Association, who enthusiastically supported him in this first year of activities. Hillel provides a forum for individuals and student groups who identify with different cultural, religious and ideological streams to share perspectives and to celebrate Jewish life in ways that are meaningful to them. Hillel also empowers students to take responsibility for their Jewish identities, whether they participate in community service projects, express themselves artistically, participate in social events, engage in informal Jewish learning opportunities, celebrate the Jewish holidays or initiate their own program ideas as part of their development as Jewish leaders. The new programs will complement the existing activities carried out under the auspices of the Blechner Chair in Jewish Tradition and Values, Beit Midrash “BaMidbar” in Yeruham and Elul – a nationwide organization.
“What I am involved in is the work of ants, not elephants,” says Prof. Dan Bar-On. No, he is not an entomologist. Bar-On is Chairman of the Department of Behavioral Sciences and incumbent of the David Lopatie Chair in Post-Holocaust Psychological Studies. He also teaches a graduate course in qualitative research methods and, with an Israeli Arab colleague, gives seminars on storytelling of the Israeli-Jewish-Palestinian conflict. He is working on creating dialogues between groups in intractable conflicts in the hopes of generating mutual understanding and respect. It is slow going, but every step forward is a step in the right direction, as far as Bar-On and his colleagues are concerned.

The son of German immigrants, the Haifa-born Bar-On lived on the southern kibbutz of Revivim for 25 years. As a soldier in the Israel Defense Forces during the wars of 1967 and 1973, Bar-On says he became politically conscious and felt that the country was moving in a dangerous direction. So he decided to enter the academic field, where he hoped he could serve the most beneficial purpose.

Bar-On’s first dialogue-promoting project concerned Holocaust survivors. “I became involved in studying the long-term effects of the Holocaust on survivors. I learned that survivors are not statistics but people. I wanted to track what was being transmitted from one generation to the next,” he says. His book, Fear and Hope (Harvard University Press, 1995), analyzed interviews with five such families.

In the mid-1980s, Bar-On launched a three-year pilot study in Germany of the children of those involved in killing Jews, gypsies and other minorities. He interviewed 90 people, more than half of whom were the descendants of perpetrators of monstrous acts. Finding out how some of them live in isolation in their own community, he got them to meet with each other to form a self-help group. “It was the only group of such kind to meet in Germany at that time,” says Bar-On. His book, Legacy of Silence (HUP, 1989), presents some of these interviews.

The next step in this difficult process was for these people to meet with the descendants of Holocaust survivors. The descendants of the victims and of the perpetrators sat together and sowed the seeds of dialogue by sharing family stories. Members of “One Generation After,” who emanate from the United States and Israel, have been meeting annually in Europe with Germans for dialogue sessions of TRT – “To Reflect and Trust” since 1992.

“In 1998,” says Bar-On, “we invited Palestinians, Israelis and practitioners from Northern Ireland and South Africa to see if our concept of story-telling could be relevant for their work in their conflicts as well.”

In the latter part of the 1990s, as a result of this initiative, Bar-On and Prof. Sami Adwan from Bethlehem University, together with colleagues, founded the Peace Research Institute in the Middle East (PRIME), located in Talitha Kumi, a Lutheran school near Beit Jala, close to Jerusalem. Its main objective, says Bar-On, is to develop joint research projects.
Despite, or perhaps because of, the outbreak of the new intifada in October 2000, Bar-On and Adwan were determined to continue their work. They received a Wye River grant from the United States State Department to do so.

Bar-On’s latest project is one that attempts to shed a more human aspect on the history of the Israeli-Palestinian conflict. A joint high school history booklet has been prepared by Israeli and Palestinian history teachers that contain two parallel narratives of several events in the conflict. These books were translated into English, French and Italian, as well as Hebrew and Arabic.

The high school students study these texts at the PRIME Institute. Because of its location, Israelis enter from one side and Palestinians from the other, Bar-On explains. “PRIME was instituted by scholars at BGU and Bethlehem University,” he says, making special mention of Dr. Kemal Dervis, a Vice-President at the World Bank at that time, who helped establish the research institute.

“This is an extremely interesting process,” says Bar-On. But it is not without its own inherent conflicts. “It is difficult for the Palestinian teachers to get permits to attend these classes,” he says. “They suffer, we suffer. They endanger themselves to participate in this process. But they are committed,” he asserts.

As for the students, Bar-On says that youth have to learn that there is another way of looking at issues and events. “I hope that in the 2000s, the political situation will be more positive and we can approach the Ministry of Education with our textbook,” he says. “I think the book is a valuable contribution to the process. It also helps teachers cope with each other and the situation they have at home. The Palestinian teachers have problems with their own people. But once they are committed to the idea, they can teach it. We just have to find creative ways to do it,” he adds.

Another project Bar-On is working on is to create an Arab-Israeli database for a website or a museum. As a start, he and his colleagues interviewed three generations of families of Palestinian refugees from the Lachish region in the south of Israel and Jewish immigrants who settled there after 1948. They brought together two Palestinian families and two Israeli families for a two-day seminar. There were three generations of Palestinian men and three generations of women. The same went for the Israelis. “They told their stories to each other,” says Bar-On. “It was a very difficult but also moving encounter. There was a lot of warmth, curiosity and acceptance between the two groups.”

“South Africa – and especially the Truth and Reconciliation Commission – is a good example of coordination between top-down political processes and bottom-up processes like the ones we initiated,” Bar-On points out, “but the Israeli-Palestinian conflict is a bad example. “There is no coordination between the leaders and the peace-builders. Leaders think in short term concepts, while peace-builders work on long term social processes,” he explains.

“It is very important for the future of the peace process to speak a common language in an open dialogue. It requires willingness on both sides – and mutual respect,” he asserts.

Bar-On received the Remarque Peace Prize in Germany in 2003 and, together with Prof. Adwan, the Alexander Langer Prize in Italy in 2001. That same year he also received the Cross of Merit first class from the President of Germany for his studies with Germans, Jews and Palestinians. His book, The Others Within Us (Mossad Bialik, 1999), deals with changes in Israeli collective identity construction – how it changes from monolithic construction to the possibility of dialogue. “A dialogue within the different parts of yourself enables you to become open to the dialogue with someone else from a different culture,” he says. “It affects your approach to the other. When you succeed in bringing people into that, it can have a great effect. It is hard work and the conditions are very difficult, but I believe that such new methods can be helpful in real life situations and can encourage students to learn how to use it in their work.”
An ongoing exhibition entitled “Art & Science” is on display in several buildings on campus. The first of its kind, the exhibition aims to introduce the younger generation to the concept of science via art and vice versa. It is based on the premise that art can serve to illustrate scientific concepts, while scientific principles can serve as a basis for works of art. Initiator of the concept and curator of the exhibition is Prof. Abraham Tamir of the Department of Chemical Engineering, a former Rector of the University and incumbent of the Israel Cohen Chair in Chemical Engineering. Tamir is Associate Editor for Art and Science in the Canadian Journal of Chemical Engineering. The exhibition displays close to 500 works of famous artists. Among the concepts illustrated in the exhibition are the laws of science and Murphy’s Law, as well as a humorous look at the University and its various departments. For each category, paintings were selected to depict a specific scientific principle, some by deliberate design of the artist, others without any such intent.
M.C. Escher
Victor Vasarely
Le Chatelier's Principle:
When a stress is applied to a system at equilibrium the system will adjust to relieve the stress.

Sandro Botticelli
The Law of Archimedes:
"On any body immersed in a fluid acts the buoyancy force." Here, the buoyancy force balances Venus' weight and this is why she doesn't sink.

René Magritte
Magritte's Twins, created by cloning

Jacek Yerka
Biotechnology = Biology + Technology
Biotechnology Engineering
Biotechnology is currently one of the hottest fields in science. During the past few years, the various disciplines that comprise biotechnology have seen immense progress. Biotechnology has touched all our lives facilitating, among other things, progress towards finding cures for some of the worst diseases known to mankind.

BGU’s Department of Biotechnology Engineering was set up in 1999, opening with the only undergraduate program of its kind in the country. The first class (2003) of biotechnology engineers received their diplomas in June 2004.

“Biology and life sciences are not sufficient to give students the necessary engineering tools to work in biotech,” explains Department Chair Prof. Shimona Geresh, who has overseen the program for the past 18 months. The engineering aspects of biotechnology, she explains, demand a new approach that couples a knowledge of biological processes with expertise in production and down-stream processing.

As part of the Faculty of Engineering Sciences, the Department of Biotechnology Engineering offers a four-year B.Sc. degree that covers a range of disciplines, including biology, microbiology, chemistry, molecular biology, biochemistry, chemical engineering and cell engineering technology. “The fact that we are giving engineering tools to people who are also studying biology, chemistry, physics and immunology, will equip them to deal with whatever the biotech industry demands,” states Geresh. “Young people today are very much aware of what is going on in the world, and biotech is blooming everywhere.”

Geresh calls the Department “the jewel in the crown” of the Faculty of Engineering Sciences, “because of the excellence of the students and the particular combination of broad
knowledge that they acquire.” Admission to the B.Sc. course is extremely competitive and is growing more so: only 80 of some 1,000 of the most scientifically gifted applicants in Israel are selected each year.

Scientists from a wide variety of disciplines staff the Department of Biotechnology Engineering. The staff members hold joint appointments with the Institute for Applied Biosciences. At a recent “Department Day” open house, students unveiled their projects, which greatly impressed representatives of Israel’s biotech industries. “Our students are our ambassadors,” says Geresh. “It is crucial,” she adds, “that local industries understand what we are doing here and are aware of the high level of our students’ knowledge. Some of our students’ projects may eventually be adopted by technological incubators.”

Geresh, who joined the University as an M.Sc. student in the early 1970s, is a natural educator. An organic chemist by education, she has always taught courses while carrying out her own research. “I like teaching, I am very close to the students and my door is always open.”

Geresh also heads the Center of Know-How for Sugars and Polysaccharides (CKSP) which is funded by the Ministry of Science and Technology. At the Center, a group of skilled scientists are engaged in the study of various aspects related to sugars and polysaccharides. One of the most exciting aspects in the world that has evolved in the post-genomic era is the burgeoning science of glycomics. Scientists believe that glycomics could fuel a revolution in biology to rival that of human genomics, since the processes determining human health appear to be controlled not only by a person’s genetic make-up but also by post-translational modifications of proteins. MIT’s Technology Review last year called glycomics “one of the ten technologies that will change the world.” The CKSP center, notes Geresh, aims to make its imprint in this field. “We are trying to develop methodologies to determine the structure, linkage and sequence of glycoproteins and to develop the tools with which to address problems posed by the academic community and the challenges raised by industry in the field of glycobiology.”

From sugars to salt. Another of Geresh’s research projects involves the use of molten or liquid salts as substitutes for the organic solvents that are used daily in the chemistry lab. “Every day another material is discovered to be toxic. What you previously thought was safe turns out to be either poisonous or carcinogenic or flammable or smells awful. I am trying to develop new materials that will replace all these solvents.”

Geresh points to shelves of containers in her lab, all of which hold clear liquids. These room-temperature ionic liquids (RTIL) are salts – not the sea salt table variety – but salts that remain liquid at room temperature. They don’t smell, they aren’t flammable and they can be – and are – used as alternative media for performing reactions and biochemical transformations that were previously carried out in volatile organic solvents.

The liquid salt discovery turns out to have important implications for another of Geresh’s scientific interests – environmental engineering and “green” chemistry. She has been able to purify industrial wastewaters with the aid of ionic liquids. “We mixed the two together, and the water came out clear with all the junk remaining behind,” she exclaims.

Recently, Geresh has combined her two fields of interest – she has used ionic liquids as the medium for preparing sugar derivatives and sugar-based intermediates that are building blocks for various pharmaceuticals. “It’s a challenge to tackle the vast potential of sugars and to outline the scope of these special salts,” she concludes.
A century ago, bears, lions, leopards and crocodiles roamed Israel’s forests and streams. Today, these are just a few of the 50 animal species that no longer live here, including 22 that have suffered global extinction.

Prof. David Saltz, a member of the Mitrani Department of Desert Ecology at the Jacob Blaustein Institute for Desert Research since 1997, has made some major contributions to reversing some of these losses. Because of his work, carried out in collaboration with the Israel Nature and Parks Authority, a group of hoofed animals that had disappeared from the local backdrop can be seen today in their former habitats. This development has not only begun repairing the damaged ecological balance, but will hopefully encourage expanded ecotourism, the serving of visitors who value the world’s natural resources and particularly those who come to Israel to witness the backdrop of the biblical epic.

In 1988, when Saltz came back to Israel from Ph.D. studies in wildlife biology at Colorado State University, he was offered a position by the Nature and Parks Authority. Its first director, Avraham Yoffe, had established two animal-breeding parks called Hai-Bars, or wildlife preserves, one in the Carmel mountain range near Haifa, and the other in the Arava near Kibbutz Yotvata, 40 km north of Eilat. These natural, but protected settings were established to raise core groups of rare hoofed animals for release back into the wild. The Hai-Bars are also populated by regional animals, birds and plants, to enable the new animals to live and reproduce in an environment that closely resembles their ancient grazing grounds.

“When I began working at the Nature and Parks Authority,” says Saltz, “there was no real reintroduction program in progress. Core groups of animals for eventual release were being raised in the two Hai-Bars, but there was no scientifically-based, long-range plan as how to best carry this out.”

Saltz had many questions to answer. How large a core breeding group is required for each species before culling individual animals for release? How many of these should be taken from the breeding group at one time and how frequently? How many animals are required for sustained survival in the wild? And how long would it take to reach that level and successfully complete the reintroduction?

In order to provide answers, Saltz
developed demographic probability models that came up with relevant numbers and age distributions for released and core populations. There was also a tremendous amount of professional background research that had to be done.

The task at hand involved the reintroduction of four species: the roe deer, Persian fallow deer, the Arabian oryx (kosher animals translated as hart, roebuck, and antelope in Deuteronomy 14:5) and the Arabian wild ass or onager (mentioned in Job 6:5). Because the fallow deer (*Dama mesopotamica*) and roe deer (*Capreolus capreolus*) are Mediterranean species, they are raised in the Carmel Hai-Bar. The oryx (*Oryx leucoryx*) and wild ass (*Equus hemionus*), which are desert animals, are being bred in the Yotvata Hai-Bar.

Of all these species, the most successful re-introduction was the wild ass. This strong, fast-running animal was last sighted in this region in 1927, though it still herds in Turkmenistan and Iran. The ass, which has disappeared due to hunting, has never been domesticated and is entirely distinct from the common donkey.

“Today,” says Saltz, “we have way over 100 onagers back in the wild – so we have stopped counting. Our sightings show that most of the central Negev is already repopulated.”

Saltz and coworkers are also involved in post-release monitoring of the various species. They found, for example, that the female onagers in their prime reproductive years – between the ages of four and eight – produce twice as many male foals or colts as females. This anomaly, they feel, provides the female an improved chance of transmitting her traits into future generations. Because the strongest male onagers live in a herd with many females, they produce many offspring. Therefore, a younger mother, with her greater ability to nurse and take care of her newborn, would be more successful in passing down her genes by birthing a colt rather than a filly.

Regarding the other animals, over 100 fallow deer now populate the northern Galilee, with the breeding core in the Carmel Hai-Bar having another 150. Roe deer, which have a rapid rate of reproduction, are not bred in the Hai-Bar. They are imported from wild populations in Europe and released after a short habituation period in Israel. There are now some dozen deer in the wild, which are tracked by radio collars. The Arabian oryx, which disappeared from the Negev by mid-19th century, is a critically endangered species still living in small numbers in Saudi Arabia. The Nature and Parks Authority purchased eight oryx from the Phoenix Zoo some 20 years ago and has established a core breeding herd of 80 animals in the Hai-Bar. Today some 70 individuals of this majestic animal, which roams great distances and survives under extremely arid environments, have been re-introduced into the northern Arava Valley.

“Despite our desire to encourage ecotourism,” Saltz notes, “this must be done very carefully. We found, for example, that wild mountain gazelles (*Gazella gazella*) living along the southern coastal plain of Israel were negatively affected by tourists. Gazelles ranging in open areas with few human visitors pastured in larger groups than those frequently disturbed by humans. Because social structure is a key factor determining the evolution and population growth of a species, changes caused by human ecotourism can affect population performance. In some cases, smaller groups of ruminants – which would be less likely to spot real enemies – could be seriously endangered.”

The reintroduction project carried out by Saltz has a key scientific goal: it helps to preserve biodiversity – the wealth of diversity existing within species and between species, which supports their adaptation, survival and evolution. There is also the historic and sentimental vision of re-establishing fauna known to the countless readers of the Bible.

“Extremely important in my work,” Saltz believes, “is an ethical commandment: If man was the cause of these multiple extinctions, shouldn’t we be the ones to undo the damage?”
It was with much sadness that the BGU family learned of the passing of Jack J. Spitzer in Seattle, Washington. For over 20 years, Jack was a member of the BGU Board of Governors, serving over the past decade as Vice-Chairman of the Board. This past May, Jack and Charlotte joined us in Eilat and in Beer-Sheva for the 34th Annual Board of Governors Meeting.

Born in New York in 1917, Jack Spitzer grew up in Los Angeles, where he soon rose to leadership positions in the Jewish community. In 1935 he assumed the presidency of three organizations: the Council of Jewish Students of UCLA, the League for Labor Palestine, and the B’nai Br’rith Youth Organization, Hollywood Chapter. At the age of 33, he went into mortgage banking, moving to Seattle in 1972, but success in banking did not diminish his commitment to B’nai B’rith.

Jack served as President of the American Associates of BGU and later on its National Board. In 1991, the University bestowed its Doctor of Philosophy Honoris Causa upon him in recognition of his myriad activities on behalf of the Jewish people and in appreciation of his support of the University. In April 2003, BGU presented him with its Lifetime Achievement Award during the course of a Gala Event in Seattle, whose proceeds Jack had requested be directed to supplement the funding of his and Charlotte’s primary concern at BGU – a building to house their beloved Charlotte B. and Jack J. Spitzer Department of Social Work. As its primary benefactors, the Spitzers nurtured the Department and, in addition, created the Spitzer Prize for Excellence and Innovation in Social Welfare, which is a prize for professional excellence given every two years to people who display initiative, innovation and pioneering in social welfare in the Negev.

Every year he traveled with Charlotte to Washington D.C. to participate in the Charlotte B. and Jack J. Spitzer B’nai B’rith Hillel Forum on Public Policy – focusing on community responsibility, social advocacy and political action on campus – as well as in the activities of B’nai B’rith. Later in life he served as President of B’nai B’rith International and was elected as Honorary President for Life. He also filled many voluntary positions of leadership. He was a member of the National Jewish Democratic Council Executive Committee and served as an honorary representative to the United Nations, while simultaneously tending to business affairs in banking and real estate and finding time for family and an endless multitude of friends. Whenever they could – for almost every year of the past 20 years – he and Charlotte came to Israel to attend our annual Board Meeting.

Jack’s memory will be cherished by all his friends at Ben-Gurion University.
Good things often come in pairs. This is certainly the case with Neta Sokolovsky and Paz Carmi. A couple for the past three years, they are both recipients of Kreitman Foundation Fellowships and both are pursuing their Ph.D. studies in the Department of Computer Science.

Paz, who received a Kreitman Foundation Fellowship three years ago, is researching computational geometry. Neta, who began her research the following year, studies computer graphics. She points out that hers is a much more practical field than the theoretical nature of Paz’s research.

In 1990, at the age of 14, Neta immigrated to Israel from the former Soviet Union along with her family, who live in Rehovot. Both she and Paz earned their first degrees at BGU, and met during their graduate studies, also at the University. “In graduate studies, there is a smaller group of people, so you can get to know the other people better,” Neta says, describing the circumstances of how her relationship with Paz began.

The Kreitman Foundation Fellowships Program, generously supported by the Kreitman family of Great Britain, attracts talented doctoral and post-doctoral students to BGU. Luckily, these two students applied at different times and therefore did not have to worry about direct competition with one another for this exclusive award. Neta says receiving the fellowship enabled her to continue in academia, something she had not been sure she would be able to do. Now, she describes life simply as, “beautiful.”

Paz says he would have continued with his studies no matter what. The Kreitman Foundation Fellowship allowed him to do so at BGU, his first choice because of its location in Beer-Sheva. “I could have continued in Zurich,” says Paz, of the opportunity presented to him upon his completion of a half-year of pre-doctoral studies there. “But there is something about Beer-Sheva; it’s something in the air.”

Life for this talented couple goes well beyond the borders of the world of academia. They both enjoy snowboarding, mountain climbing and traveling. “We take a trip at least once a year,” Neta says, adding that they have been all over Europe, and that France and Austria are their most common destinations for snowboarding.

Upon the completion of their doctorate degrees, they both plan to continue their research with post-doctoral studies, probably abroad. Following this, Paz sees himself in academia. The practical application of his field of study involves chip design and communications. Life as a professional academic is most appealing to him since his main interest is research. Neta’s prospects lie in designing computer graphics for games and movies. However, she enthusiastically points out that her expertise can also be applied within the field of medicine. “It can help doctors understand what’s going on with their patients using pictures, for example through the use of MRIs,” she says.

Love of the Southern city goes hand-in-hand with love of country. With high ambitions, when asked where they plan to accomplish their goals, Paz answers, “In Israel, that’s for sure.”
Securing Masada

Herod the Great built his lavish desert stronghold on the statuesque mount called Masada overlooking the Dead Sea, which lies in the Jordan Rift Valley.

Declared a World Heritage Site by UNESCO in October 2002, Masada is home to the remains of Herod’s extravagant fortress and the place where, 70 years after his death, Jewish zealots held out against a Roman siege and eventually committed communal suicide rather than fall into slavery.

As Israelis were reminded in February, when the country experienced a magnitude 5.3 earthquake whose epicenter was below the Dead Sea floor, this priceless archeological site is located on one of the earth’s famous fault lines. In the past, there have been many earthquakes of varying magnitudes along the Jordan Rift Valley, a segment of the regional Syrian-African rift system. And, scientists agree, there will be more earthquakes in the future.

Will the great fortress of King Herod withstand an event of greater magnitude? In the late 1990s, a team from the University’s Rock Mechanics group was asked to carry out research on the stability of the “Snake Path” cliff that faces the Dead Sea. The Israel Nature and Parks Authority (INPA) was installing a new cable car station and wanted to be sure that the work did not compromise the stability of the historic site. Using an elaborate 3-D analysis and a sophisticated monitoring system, the team discovered that there were several very large blocks of rock, one of them positioned just above the old cable car station, that were ready to slide. On the team’s recommendation, the cliff was stabilized in a stunningly delicate reinforcement operation in which steel cables were inserted into the rock.

“While they were working on the reinforcement operation, we were monitoring it from here,” recalls geological engineer Dr. Yossi Hatzor from the Department of Geological and Environmental Sciences, who heads the team. “It was a very risky procedure. But it was done in such a way that the visitor doesn’t see the support elements that are installed in the rock, because they’ve been purposely made invisible.”

Once the Snake Path project was completed, Hatzor and his team were asked by the INPA to turn their attention to the stability of the structure on top of the mountain – King Herod’s northern palace, built on three terraces on the north face of Masada.

“That was a whole new ballgame,” declares Hatzor. The challenge on the Snake Path involved large unstable blocks that threatened to dislodge and tumble down, harming visitors. “We could estimate the forces on the blocks and calculate how much support is needed for stabilization. On the northern slope of Masada, the picture is completely different,” he explains. The ruins of the palace rest on a rock bed made up of hundreds of discrete blocks and cracked boulders. In other words, this rock is highly discontinuous, thus
necessitating a different kind of analysis to determine the possible effect of an earthquake.

Earthquake risk is evaluated by the expected peak ground acceleration (PGA) at a particular site, explains Hatzor. The expected PGA for the Dead Sea region is 0.25g. The Dead Sea quake in February this year, for example, registered a 0.3g PGA 15 km from the epicenter, according to preliminary estimates. The Masada site must have experienced several shaking events of this magnitude during its 2000-year history. Nevertheless, Herod’s fortifications along the rim of the upper terrace are still standing, says Hatzor. Can they withstand an event of a greater magnitude? “Our analysis deals with the stability of the foundation of the palace, not the palace itself, and what we need to do to preserve it in the case of a strong earthquake. Do we need massive reinforcement, or can we be satisfied with individual spot bolting here and there?” he asks.

Hatzor completed his B.Sc. and M.Sc. in Geology at The Hebrew University and received his Ph.D. in Engineering Sciences from the University of California at Berkeley before joining Ben-Gurion University, where he established the Rock Mechanics group for graduate students and an undergraduate program in Engineering Geology.

The tool used to analyze what might happen to the palace in the event of an earthquake is a sophisticated computer simulation model called discontinuous deformation analysis (DDA). Developed at UC Berkeley by Dr. Gen-hua Shi, the DDA model had never been used before for this kind of project, which involves earthquake engineering to preserve historical monuments in rock.

The team induced an earthquake of the type likely to be experienced in the Jordan Rift Valley onto the computer-generated model of the area. The simulation results showed the ground shifting and the rock blocks dislodging. The recommendations as a result of the study show that the terraces on the north face of Masada will certainly remain standing in the event of a strong earthquake, but segments of the slopes should be strengthened to ensure visitor safety and better preservation of archeological remains. The INPA hopes to carry out this challenging stabilization project, which will have to be executed with minimal disturbance to the natural appearance of the rock, sometime soon.

Herod’s palace was not designed to last two millennia. Herod himself lived there for only 15 years. The pillars on the terraces have collapsed and the roof is ruined, but many of the original structures and fortifications are still there. Hatzor says he is in awe of Herod’s builders and architects. “They built in a very complex topographical setting. They understood the structure of the mountain, the influence of the bedding planes and the joints. The water systems built into the mountainsides are very well designed. Everything is in place and still intact. His builders knew how to construct underground chambers with no support; they are still standing.”

Hatzor and his Ph.D. student Michael Tsesarsky have since checked the validity of the DDA computer analysis by applying it to other documented historical cases. They tested a 3,000-year-old underground opening at the archaeological site of Tel Beer-Sheva, where the roof was also made of jointed blocks. Using DDA they were able to explain the failure mechanism of the roof. Together with Prof. Nicholas Sitar, Director of the Earthquake Engineering Research Center at UC Berkeley, they validated and calibrated the DDA model using results from studies performed on a shaking table. In a project funded by the US-Israel Binational Science Foundation, which has just been completed, Hatzor’s partner, Dr. Mark Talesnick of the Technion, used centrifuge models to simulate the deformation of jointed rock beams (voussoir beam) and the results were compared with DDA predictions.

“It has taken four years to learn the limitations and advantages of the DDA method,” says Hatzor, “but it is now considered the strongest code in rock mechanics to solve problems involving deformation in discontinuous rock.”
Both a clinician and a researcher, Dr. Ohad Birk is treating genetic disorders while hunting down the genes that cause them. Although he serves the entire population of some 500,000 in southern Israel, the main focus of his work is with the nearly 140,000 Bedouin of Israel’s Negev region, who suffer a particularly high incidence of genetic disorders. In addition to relieving their suffering, the work of Birk’s multidisciplinary team also has applications well beyond the country’s southern desert.

The Negev Bedouin are a relatively isolated population, and they have a very high proportion of consanguineous marriages, with some two-thirds of the adult population married to first or second cousins. As an unfortunate consequence, the Bedouin show a high rate of genetically-determined neurological, skeletal, eye, cardiac, gastro-intestinal, skin and eye diseases. There’s even “hereditary infertility” – not a contradiction in terms, explains Birk, acting Director of the Institute of Genetics at the Soroka University Medical Center and head of the Faculty of Health Sciences’ Human Molecular Genetics Lab, but a matter of statistics, since if both parents carry the defective gene, perhaps a quarter of their children will exhibit the defect.

Some abnormalities result in stillbirths. An additional portion of human pain and family dislocation comes with live births burdened by such genetically linked illnesses as congenital glaucoma and blindness; nasal hypoplasia, a condition in which the baby’s nostrils are blocked; aplasia cutis, in which no skin covers the newborn’s skull; craniosynostosis, a fusing of the rear skull plates that forces the brain to expand upward, elongating the skull; and neurological-spastic diseases, which most babies don’t survive for more than six months.

While treating these diseases, Birk, who heads a combined research and clinical team of 45 people, offers the Bedouin pre-marital carrier testing and pre-natal diagnosis, as well as support in educational programs for high school and religious teachers that increase awareness and prevention of genetic problems. An increasing number of Bedouin now request pre-natal diagnosis, because their religious practice allows abortion through the first four months of pregnancy. There is also growing interest in this community in pre-marital genetic testing, similar to that done among the ultra-orthodox Jews.

“However, some illnesses show up too late for abortion,” notes Birk, “and mental retardation does not reveal itself until after birth. While much progress has been made,” he adds, “continued inbreeding (and a birth rate of more than seven children per family) increases the incidence of common defects and creates new ones. Changing traditional marriage and family patterns is a slow process.”

Beyond treatment and
education, Birk’s research group is aiming at long-term prevention by hunting down the genes responsible for these illnesses – painstaking work that requires first characterizing the physical condition, then preparing a DNA “workup” in tandem with a complete history of the affected individual’s extended family. A genetic linkage analysis then aims to identify which group of genes (out of tens of thousands in the human genome) harbors the specific defect responsible for each condition. That search generally yields a locus of 10-100 genes, Birk says. Further investigation, including comparison of the sequencing of the target genes with normal sequencing, allows Birk’s team to determine if the patient has a gene miscoding – an actual mutation of the gene.

While offering carrier testing to the extended family as a clinical option, Birk’s research is continuing with the creation of laboratory mice with the same condition. “Human genes are 97 percent identical to mouse genes,” Birk points out. “If a child is born, for example, without eyes, we create the same phenotype in mice. Such mice allow further studies of the genes and serve as models for novel treatment modalities in the future.”

The Bedouin total mutation rates are not higher than in any other population, Birk takes care to explain. “We all have mutations in our genes. But in the inbred Bedouin community, individuals meet and marry carriers of the same diseases more frequently, so the rate of genetically sick infants is higher.”

In some 15 years of genetic studies on the Negev Bedouin, Prof. Rivka Carmi – the founder of the project and currently Dean of the Faculty of Health Sciences – in collaboration with laboratories in the United States, identified the genes for ten diseases. Three years ago, Birk began setting up a laboratory and doing all the research “in-house.” State-of-the-art biotechnology tools that have emerged recently, together with generous support from the MK Humanitarian Foundation, have enabled rapid progress: in the last couple of years, the team has enabled novel carrier testing for some 15 severe diseases, applicable to more than 20,000 individuals.

In fact, assisted by Dr. Rivka Ofir, and working in close collaboration with Dr. Khalil Elbedour, Dr. Daniela Landau and many other physicians throughout the country, Birk’s laboratory has now become a center for research of genetic diseases in inbred communities throughout Israel.

This tremendous effort at prevention, treatment and investigation is sure to bring benefits not only to other Arab and Bedouin communities in the Middle East but also to Europe, with its large Muslim populations. Moreover, studies of this inbred population also allow a unique opportunity to identify novel drug targets for complex common diseases such as epilepsy and morbid obesity. In fact, Birk is now expanding the focus of his genetic research to include common diseases such as epilepsy, myopia and diabetes.

Does he like his work? “We’re nailing down the precise molecular basis of diseases while dealing with intense human situations,” enthuses Birk, who is armed with an M.D. and Ph.D. from Israeli universities plus post-doctoral stints, both clinical and research, at the National Institutes of Health in Maryland. “We’re combining basic research using the latest scientific technologies with practical applications and deeply human concerns. Altogether, it’s fascinating, and I love it.”
Ben-Gurion University Honors Its Friends

An Honorary Doctorate was awarded to Dr. Howard W. Marcus, a dentist and physician who resides in the San Diego region of southern California. Born in Germany, where he graduated with honors in dentistry, Dr. Marcus studied medicine in Italy before arriving in New York in 1939, where he requalified for his medical license. He made his home in New York with his wife, Lottie, until they moved to California in 1978. He has written numerous articles in professional medical journals and books. He was honored for his lifelong commitment to alleviating the suffering of others, for his contribution to the advancement of the medical and scientific use of clinical and experimental hypnosis, and for his philanthropy and support of research at Ben-Gurion University.

Lottie R. Marcus (née Blümlein) received an Honorary Doctorate at the same ceremony. Lottie left her family in Germany to join relatives in New York, where she met Howard Marcus. She helped Howard in his dental and medical practices and managed his offices while devoting herself to worthy causes. She was honored for her admirable strength in building a new life for herself in the United States, as well as for her business acumen, and for harnessing her exceptional capabilities for the benefit of Jewish organizations in the United States and Israel. Lottie, together with Howard, has extended significant support to the University, focusing on contributions to water research. They both are admired and highly-respected active members of the synagogue, Temple Adat Shalom, in Rancho Bernardo.

Jack J. Dreyfus, Jr, known as the “Lion of Wall Street,” received an Honorary Doctorate from Ben-Gurion University in recognition of his business acumen and most particularly for his vision and persistence in support of drug research for depression with the drug phenytoin. With this latter goal in mind, he established the Jack Dreyfus Chair in Psychiatry (Unit for Phenyoitin Research) at BGU. At the ceremony, held by the American Associates of BGU in New York, Dreyfus was lauded for his lifelong dedication to the mental welfare of mankind and his tireless work to make a difference for all peoples throughout the world through his establishment of the Dreyfus Medical Foundation.

An Honorary Doctorate was awarded to Seymour Powers at a gala “Four Star Celebration” hosted by the Greater Florida Region of the AABGU, serving on its inaugural 1992-1993 Board of Directors and as its Chairman. He is also the recipient of the BGU Negev Award.

At a gala dinner in New York organized by the American Associates, an Honorary Doctorate was bestowed upon Dr. Mathilde Krim, a pioneer medical investigator who has been a key figure in the search for a cure for HIV/AIDS. Krim was honored for her role in establishing both the AIDS Medical Foundation and the American Foundation for AIDS Research (AmFAR) and for her work to expose the mechanisms of cancer and the use of Interferon to slow the progress of both AIDS and cancer. Visibly moved, Krim said, “It is particularly gratifying to be recognized by Ben-Gurion University of the Negev, an institution that has shown how science can be harnessed to enhance human health and prosperity.”

At the Florida event, Marcela and Rubin Salant of Aventura were presented with the “Negev Award” for their ongoing support of the University and its endeavors. They were honored for their commitment to philanthropic ventures and to the advancement of education, health and the Jewish community in Florida, for their generous support of students and academic research at Ben-Gurion University and for their continued contribution to the promotion of higher education in Israel and the development of the Negev.
Lottie Marcus (second from left) and Dr. Howard Marcus (right) receive their Honorary Doctorates from BGU President Prof. Avishay Braverman. With them in the photo is Prof. Eilon Adar, head of the Institute for Water Sciences and Technologies.

Jack Dreyfus (right) with Dr. Barry H. Smith, Director of the Dreyfus Health Foundation.

Seymour Powers

Dr. Mathilde Krim

Marcela and Rubin Salant receive the Negev Award from President Braverman.
At the University’s commemoration of Ben-Gurion Day, which marked the 30th anniversary of the passing of Israel’s first Prime Minister, Honorary Doctorate degrees were awarded to four personalities who made an exceptional contribution to the Negev and the State of Israel.

Renowned scientist and industrialist Prof. Haim Aviv, a member of the BGU Board of Governors and its Executive Committee, laid the foundations for biotechnology in Israel and serves as a member of numerous scientific advisory boards nationwide, including that of BGU’s Institute for Applied Biosciences.

Israel Prize laureate Prof. Hillel Furstenberg, a member of the Israel Academy of Sciences and Humanities and the National Academy of Sciences of the United States, has won a myriad of other prestigious awards for his accomplishments in the field of mathematics – a science he has helped nurture at BGU since its infancy.

American philanthropist Larry Goodman is a devoted member of the BGU Board of Governors, who also serves as National Chairman of the American Friends of the Beer-Sheva Foundation.

Former Mayor of Beer-Sheva and founding member of the BGU Board of Governors Eliyahu Navi, has left an indelible mark on the City of Beer-Sheva and the entire Negev.

In addition, two exceptional “Friends of the Negev” received the Ben-Gurion Negev Award at the same ceremony: members of the BGU Board of Governors, the late Dr. Chaim Huber, who served as long-time Chairman of the University’s Investment and Finance Committees of the Executive Committee, before passing away this summer; and Sara Tadmor, founding President of the Israeli Friends of BGU. They were both honored for their dedication and tireless work on behalf of the University and the development of the Negev.
Ben-Gurion University of the Negev honored the late Colonel Ilan Ramon, Israel’s first astronaut, who died tragically with his fellow crew members in the Columbia Shuttle disaster, with its Lifetime Achievement Award. Prof. Avishay Braverman presented the award to Col. Ramon’s widow, Rona, in a special ceremony in the presence of Minister of Science Eliezer (Mody) Zandberg, friends and members of the Ramon family and the members of the University community – many of whom knew Ramon personally when he was growing up in Beer-Sheva.

According to the citation issued by the University, Col. Ilan Ramon was honored as “a son of the Negev who soared beyond the horizon; an exceptional person, the core of his family, who devoted his life to the realization of the humanistic and Zionist ideals on which he was raised; a superb fighter pilot and commander of an F-16 squadron in the Israeli Air Force, who risked his life on many occasions in the defense of the State of Israel and contributed to the development of the Air Force as Head of the Department of Operations Requirement for Weapon Development and Acquisition; and the first-ever Israeli astronaut, who brought honor to his country, the Jewish people and the scientific community in Israel, as a member of crew STS-107 of the National Aeronautics and Space Administration aboard the Space Shuttle Columbia on a mission that claimed his life and garlanded him with everlasting fame.”
In her own research, Prof. Zipora Talshir, Chair of the Department of Bible and Ancient Near Eastern Studies, deals with ancient texts and history. But right now, some contemporary news is emanating from her Department: the establishment of a new academic program, the Deichmann Program in Christian Literature of the Hellenistic and Roman Era.

The aim of the program, funded by Dr. Heinz-Horst Deichmann of Germany, Vice-Chairman of the International Board of Governors and a great friend of the University, is to increase the study of what Talshir calls “a dark, in-between period of some 500 years.” Sometimes referred to as the “inter-testamental” period, the Hellenistic and Roman era more or less coincides with what Jews call Second Temple times, beginning several hundred years before the rabbinic sages became the acknowledged authorities in Judaism and extending up to the writing of the New Testament.

In addition to the Hebrew Bible and the New Testament, Talshir explains, the literature of this period includes the Qumran scrolls, the Apocrypha and early rabbinic and Christian texts. Scholars address such historical and textual questions as: How did the Qumran texts develop? What was the relationship between culture and religion during these centuries? What was the impact of Judaism and the Hebrew Bible on the birth of Christianity?

Dr. Deichmann, says Talshir, is a religious Christian who “recognizes that there was a tremendous influence of the Hebrew Bible on the New Testament and the fact that Jesus was, after all, a devout Jew.” The program inaugurated in his name includes an annual lecture series, the contribution each year of essential books in the field to the University’s Zalman Aranne Central Library, a scholarship for an advanced student in the field (this year’s candidate is Dalia Amara, who is writing her dissertation on the Book of Daniel, a book of great importance for both Judaism and Christianity), and the funding of two senior lecturers, one a scholar of Jewish sources, Dr. Cana Werman of Israel, the other – of
Christian sources – Dr. Roland Deines of the University of Tübingen, Germany. The program is expected to develop and ultimately become a center for the study of the period.

Meanwhile, Talshir is deeply engaged in her research, which includes painstaking philological analysis. While the Bible, that perennial best-seller, may seem one of Western culture’s most stable objects, its solidity is partly an illusion, as scholars pursue an original text that no longer exists.

“The Hebrew text that we have,” explains Talshir, “is in many cases hundreds of years later than the original text, so we’re in search of how it was composed and transmitted.” The most important witnesses to this process are the Septuagint (the Greek translation of the Hebrew Bible made in the third century BCE), the Samaritan Pentateuch and the Qumran scrolls, which offer variant versions of biblical texts as well as sectarian writings of great historical interest.

The Qumran scrolls include biblical texts written a thousand years earlier than the standard Masoretic text that dates only to the ninth century CE. Although many scholars prefer the Qumran texts because they are, in theory, closer to the Bible’s elusive “Urtext,” Talshir cautions that in transmitted texts, dates can be misleading. The Masoretic text could in theory descend directly from the “Urtext,” while the Qumran scrolls, though earlier, might have undergone extensive emendations.

In her philological work, Talshir compares the Septuagint and the Masoretic texts and “tries to figure out which text the translator actually had in front of him.” She also investigates the extent to which the biblical texts change for literary reasons, and there are ideological needs that act on the text, as well.

One great controversy in Talshir’s field is between the “fundamentalists,” who accept the biblical narratives as essentially historical, and the “minimalists,” who view Ancient Israel as an invention by a later Hellenistic people seeking a history for themselves. Talshir herself dismisses both extremes, crediting the Bible’s narratives as an intriguing multifarious collection of ancient traditions that preserve reminiscences of Israel’s ancient culture and history.

Born in Romania, Prof. Talshir came to Israel as a young girl. She earned her B.A., M.A., and Ph.D. (1984) from The Hebrew University, where she taught until 1994. Ten years ago, she came to Ben-Gurion University. A mother of four and grandmother of two, she is married to Prof. David Talshir, who teaches in the Department of Hebrew Language at BGU.

“A story – or a history – is ‘reality’ converted into literary forms”
Robert H. Arnow easily could have settled for success in his family real estate firm, building Manhattan skyscrapers and looking out on the world from his office on the 34th floor of the Grace Building. Instead, the now-retired New York businessman and Chairman Emeritus of the BGU Board of Governors, has devoted his boundless energy, creativity and management skills to philanthropy.

As he turns 80, Robert Arnow’s life can be measured not just in years but in the value of his activism, both in monetary and human terms. He visited Israel for the first time with his wife Joan in 1961 and has been involved in its development ever since. From serving as President of the University’s American Associates and Chairman of the Board of Governors, to promoting the advancement of the Negev Bedouin women through higher education, he has approached challenges with a distinct personal activism and “outside-of-the-box” thinking.

Arnow’s desire to help all Israel’s citizens achieve social and political equality – regardless of race or religion – resulted in the establishment in 1997 of BGU’s Center for Bedouin Studies and Development. A collaborative effort with Dr. Ismael Abu-Saad, founding Director of the Center, their first initiative was providing scholarships for Bedouin women.

“It all started when I met Ismael Abu-Saad, the first Negev Bedouin at BGU to receive a doctorate degree, and subsequently met two Bedouin women in his office. These women came from unrecognized villages with no transportation, no electricity and no running water. And there they were, in their second year at the University. I was so impressed that I said to myself, ‘I have to help these women,’” recalls Arnow. “When you educate a Bedouin man, you have an educated man. When you educate a Bedouin woman, you change the community.”

His visionary leadership and extraordinary personal commitment have contributed to the Center’s impressive accomplishments: female enrollment has gone from eight in 1995 to 154 undergraduates and 27 in graduate study in 2004, with the first female medical doctor presently working as an intern.

While Arnow is proud of the Center’s success, his focus is on the future. A recent evaluation of the first six years identified opportunities for
improvement, mainly in the area of support of female Bedouin students. “These young women face a more difficult transition when they leave home – with its traditional culture associated just with family affairs and little education – for the drastically different environment of the University,” he says.

Arnow sees “a critical need for more consistent, compassionate tutoring and for a mentoring program where groups of 10 to 12 students would meet every two weeks. To put this into the right structure, additional staff will be required, including a full-time administrator. All this will have a financial impact.”

Consequently, Arnow would like to see his “one man mission” become a team effort. With Israel’s drastic budget cuts, he’s hoping others will join him in supporting these new initiatives as well as established ones: scholarships, the Student Retention Program and the Budding Scientists University preparatory program for high school students.

Although the Bedouin make up 25 percent of the Negev’s population, only four percent of BGU’s students come from Bedouin communities. “If we are proud of Israel because it is a Jewish state, we must heed the Bible, ‘Remember the stranger for you were a stranger in the land’ and ‘Justice, justice thou shalt pursue.’ The Bedouins are citizens of Israel and are not really ‘strangers,’” he says. “The only hope for the Bedouins to become contributing members of Israeli society is through education. I’ll continue my work on their behalf,” says Arnow, more committed than ever.

On the same occasion, Prof. Boris Zaltzman, from the Department of Solar Energy and Environmental Physics at the Jacob Blaustein Institute for Desert Research, received this year’s Toronto Prize, generously provided by the Canadian Associates of BGU. The prize was established in 1999 by the Toronto Chapter of CAGBU in honor of the 50th anniversary of the State of Israel. Zaltzman’s work explores new, more efficient, desalination technologies which can help to alleviate the severe water scarcity problems in Israel and around the world.
Modern feminism, brought to the fore some thirty years ago in the United States, has undergone a metamorphosis. The activism – or even radicalism – of Betty Frieden, Kate Millett and Germaine Greer has been largely replaced by the so-called “third wave feminism,” an approach that seeks to understand and improve the position and status of women worldwide within the social context in which they live.

In Israel, one of the foremost investigators advancing the study of women in various societies and spearheading the cross-cultural interaction of feminist exponents is Dr. Pnina Motzafi-Haller of the Social Studies Unit in the Department of Man in the Desert at the Jacob Blaustein Institute for Desert Research. The Israeli researcher, born in the immigrant town of Afula in the late 1950s, brings to bear her early upbringing by Mizrahi (often called Oriental or Sephardi) Jewish parents, as well as studies in anthropology at The Hebrew University of Jerusalem and at Brandeis University, where she earned her Ph.D. in 1988, investigating the Batswapong people in rural Botswana. She has since carried out long-term fieldwork with agriculturists in Burkina Faso and with Jewish women of Asian and North African origin in rural Israel.

Working as a cultural anthropologist in Africa, Motzafi-Haller probed the influence of women, as a group, had changed unrecognizably in their social behavior.

As is customary in rural Botswana, “white-woman” Motzafi-Haller was accompanied on her visit by the village headman (kgosi). When she entered the yard of a subject she had interviewed previously, the woman ran out, immediately recognized the Israeli researcher and called over her sisters. They quickly started chatting with Motzafi-Haller in Setswana, the national language, which the anthropologist had learned during her first stay. The women also began giggling, kidding and running about. Not only could such behavior not have taken place in the presence of the headman during her first study, but the woman even teased the new kgosi and even spoke to him with defiance. What had happened?

“There was a major social upheaval,” Motzafi-Haller explains. “The federal Tswana government had decided to hire a local headman, who replaced the traditional hereditary kgosi. The new leader, therefore, lost his communal and moral authority. Moreover, the government took away his rights to distribute land, divesting him of his power base.”

“But I saw something else extremely important here: the women – as women – took advantage of this change and adapted a new form of social independence. It was a feminist advance within their society that had to be recognized.”

This Botswana experience of “third wave feminism” exemplifies the new approach to feminism of the 1980s and ’90s: women’s advances must be judged against the background of their own culture and lifestyle. Western feminism seeks to ensure that women have all the opportunities open to men, enabling free participation in politics, employment and management, with concomitant rewards. They must attain absolute equality both under the law – and in practice. With the entry of the third wave, researchers and women in developing and third-world countries have rejected this Western measuring stick.

In addition to women in Black Africa, Motzafi-Haller is investigating feminist activities of Arab women in general and Israeli Mizrahi women in particular.
“After the signing of the Arab-Israeli peace accords,” she notes, “governments and agencies, particularly European ones, began supporting collaborative academic research in many fields, including women’s studies. A conference in Cairo in late 1998 was dedicated to feminism in the Middle East and was attended by representatives from Egypt, Israel, Jordan and the Palestinian Authority. In preparing for the meeting, I realized that we in Israel were largely ignorant of contributions to this field by Arab women. Who of us knew, for example, that there was an Arab Feminist Conference held in 1938, organized by Huda Sha’rawi? Who heard of her organizing a Pan-Arab Feminist Union in 1994? Who even read Sha’rawi’s many publications or books?”

Closely studying Arab feminist writing, Motzafi-Haller learned that Western feminism was not the only model for feminist politics in the Arab world. Examining their own history, Islamic feminist scholars have shown that classic Islam was not in conflict with a woman’s seeking to improve her status. It was the power struggles among male-centered groups that dismantled much of the original, more egalitarian spirit of the classical scriptures. Motzafi-Haller tries to use the insights she identifies in the Arab feminist literature for improving and expanding the scope of Israeli feminist scholarship. Her own ethnographic work among poor Mizrahi women in Israel has taught her that local feminist and general sociological researchers have largely ignored these women, and when studied, they were approached in a patronizing manner.

“What I try to do in my research,” she says, “is to understand Mizrahi women’s lives as meaningful and coherent and not as deficient or problematic. One of the issues I examine, for example, is how these women define their religiosity. I found that they approached religious practice and experience in a novel, creative way. Much like the development of Reform Judaism in the West, they mix religious and secular practices into a new format: lighting Sabbath candles, having a festive, kosher, traditional meal, but relaxing afterwards by watching cable TV.”

In her recent sabbatical year in Canada, Motzafi-Haller added another dimension to her ongoing interest in postcolonial feminism, when she examined the way First Nation (native) women, immigrant women, and francophone and anglophone Canadian women deal with their cultural differences in building a strong feminist movement in their country.

By expanding the social contexts of third wave feminist research, Motzafi-Haller has improved the understanding of the common problems shared by women in different parts of the world.

“If women from these various countries could improve discourse,” she says, “they would be able to make a greater impact on the male-dominated societies in which they live.”
The Daniel Falkner Scholarship Endowment Fund for Students of Desert Research has been established with the specific aim to bring students to the Albert Katz International School for Desert Studies at the Jacob Blaustein Institute for Desert Research on the Sede Boqer campus. The fund was created by Daniel Falkner of London to enable students from around the world to reap the benefits of the expertise of the scientists and researchers at the Institute in desert-related topics and return to their countries of origin to apply that knowledge.

The Henry and Anita Weiss Family Building for Advanced Research was dedicated at a ceremony in the presence of representatives of the family. Speaking at the event, during which son-in-law Cantor Nathan Lam affixed the mezuzah, daughter Donna Lam said, “It is a dream come true for my parents to be able to support advancement in the Negev with this important building and their generous support for the Young Scientist Recruitment Fund.”

The Weiss Building houses two floors of many of the University’s most sophisticated laboratories, conference rooms and offices of the Faculties of Natural Sciences and Engineering Sciences. The facility was designed to provide room for the specialized equipment needed in new interdisciplinary fields including the Biophysics and Atom Chip Laboratories of the Ilse Katz Center for Meso- and Nanoscale Science and Technology, the Very Large Scale Integration Systems Center (VSLI) and the German-Israel Project Cooperation Laboratory of Turbulent Multiphase Flows.

The Daniel Falkner Scholarship Endowment Fund for Students of Desert Research has been established with the specific aim to bring students to the Albert Katz International School for Desert Studies at the Jacob Blaustein Institute for Desert Research on the Sede Boqer campus. The fund was created by Daniel Falkner of London to enable students from around the world to reap the benefits of the expertise of the scientists and researchers at the Institute in desert-related topics and return to their countries of origin to apply that knowledge.

Scholarships for Desert Research

Donna Lam cuts the ribbon, with Nathan Lam (left) and Senior Vice-President Dr. Israel German

Daniel Falkner with Nchimunya Milandu Mwiinga, a student from Zambia
The Moshe David Gaon Research Center for Ladino Culture was dedicated at a moving ceremony on campus. “I appear constantly in public,” said popular performer Yehoram Gaon, “but I have never been moved the way I am tonight.” He encouraged the crowd, composed primarily of Ladino and Spanish speakers, to accompany him as he sang a repertoire of traditional folksongs. Original poems written by his father Moshe David Gaon were read in Hebrew and Ladino by Dr. Avner Perez and Eliezer Papo.

Gaon’s older brothers – Benny, a prominent industrialist, who was the force that made the Center a reality, and Yigal – also spoke at the ceremony. Yitzhak Navon, the fifth President of Israel, Director of the National Authority for Ladino Culture, member of the University’s Board of Governors and now Honorary President of the Gaon Center, sent a warm message on the occasion of the dedication.

The Center will focus on deepening the knowledge of the Ladino language and literature and of the history, traditions and customs of its speakers, and will establish a Ladino studies program at BGU. It will organize national and international conferences on the subject and promote academic cooperation with other such centers in Israel and abroad.

Director of the new Center, Prof. Tamar Alexander of the Department of Hebrew Literature, incumbent of the Estelle S. Frankfurter Chair in Sephardic Culture and head of the Folklore Studies Track, noted that “Today, Ladino is disappearing – certainly as a language in everyday use – and therefore it is particularly important to establish this Center.”

All in the Family - Wiener Garden Dedicated

The Rose and Paul Wiener Garden was dedicated on campus in the presence of Sherry and Joel Wiener from New York and family members and friends. Joel Weiner is a cousin of BGU’s Deputy-Director-General of Logistics, Yigal Volk, and has thereby expanded his “family” to include that of BGU.

President of Israel, Director of the National Authority for Ladino Culture, member of the University’s Board of Governors and now Honorary President of the Gaon Center, sent a warm message on the occasion of the dedication.

The Center will focus on deepening the knowledge of the Ladino language and literature and of the history, traditions and customs of its speakers, and will establish a Ladino studies program at BGU. It will organize national and international conferences on the subject and promote academic cooperation with other such centers in Israel and abroad.

Director of the new Center, Prof. Tamar Alexander of the Department of Hebrew Literature, incumbent of the Estelle S. Frankfurter Chair in Sephardic Culture and head of the Folklore Studies Track, noted that “Today, Ladino is disappearing – certainly as a language in everyday use – and therefore it is particularly important to establish this Center.”
With all the advances in therapeutic drugs, the problem of unwanted side effects remains a major problem. Most adverse effects are the result of the interaction of drugs with places in the patient's body that are not relevant to their medicinal action. The drugs are dispersed throughout the body; if they are toxic, such as those used in chemotherapy, they can result in serious side effects.

University scientists Prof. Eliahu Heldman of the Faculty of Health Sciences and Dr. Sarina Grinberg and Dr. Charles Linder of the Institutes for Applied Research are developing a novel means for delivering drugs directly to the diseased site in the patient’s body. This potential breakthrough drug-delivery system consists of submicroscopic spheres – or vesicles – prepared from derivatives of the oil extracted from a wild shrub known as ironweed or vernonia (*Vernonia galamensis*). Targeted delivery prevents or minimizes the adverse side effects of systemically administered drugs – especially toxic drugs such as those used in chemotherapy – and facilitates the delivery of drugs to hard-to-penetrate organs, such as the brain.

Vernonia, a plant belonging to the sunflower family, has small lavender-colored blooms and grows wild in East Africa. Its seeds contain a naturally-epoxidized oil that can be used in the manufacture of adhesives, varnishes, paints and industrial coatings. Being a natural renewable resource, the oil is rapidly becoming better known and more popular. It can be used in “green” or “sustainable” chemistry which reduces or eliminates the use of substances that are hazardous to health and the environment.

The University team uses derivatives of vernonia oil to prepare tiny – 30-80 nanometers (1 nm=1 billionth of a meter in diameter) – vesicles made of a monolayer wall, to carry an encapsulated drug to its target organ – and only to that target. They have named the invention Nano-Missiles Target Disease.
“V-smart,” for the smart vesicles that transport the drug to its target and enable it to penetrate through the body’s barriers and for vernonia, the plant from which the oil is extracted. The tiny nanovesicles release their contents exactly where the drug is needed, whether in the brain or another organ.

“Once we made the first vernonia derivative and looked at its performance, we immediately saw it was going to be a very significant invention,” exclaims Linder. The team has already conducted preliminary animal experiments with “V-smart” designed to disintegrate specifically in the brain. “We loaded the vesicles with a fluorescent marker to trace their path,” relates Heldman. “After being injected intravenously into the animal, the vesicles crossed the blood-brain barrier and concentrated in the brain. Then, the vesicles disintegrated in the brain and released the marker there. That’s the proof of the concept.”

Two patents are pending for “V-smart” products as unique drug-delivery systems. Such vesicles can be applied in the treatment of Parkinson’s disease, brain cancer and other diseases for which drug delivery is problematic. Grinberg, who initiated the work on vernonia, encouraged her colleagues to expand the uses of this remarkable plant oil. “Vernonia oil is a promising renewable resource. There are already some cosmetic companies using this oil directly,” she says. “The oil is also used in paint solvents to replace the volatile organic compounds and as a monomer for biodegradable polymers.”

There are various drug-delivery systems in use today, but all have drawbacks and limitations. Mechanical devices can release drugs at their site of action but they are invasive and uncomfortable for the patient. Other types of vesicles – small liposomes made of phospholipids that are used to deliver certain types of drugs – are not very stable and are, as yet, not well targeted. “Pro-drugs,” compounds that are made from the drug themselves, must be tailor-made for each specific drug and this is not always practical.

“What we are suggesting is the exploitation of a renewable resource to produce a pharmaceutical platform whose benefits lie in increasing drug bioavailability and efficacy and a considerable reduction in side effects,” says Grinberg.

Each member of the team has brought particular expertise to the project. Grinberg, an organic chemist, has been experimenting with vernonia oil for many years and has synthesized a range of derivatives for various applications. Linder is an expert on the biophysics of membranes and has many patents to his name, while Heldman is a neurochemist and pharmacologist with over 39 years experience in drug development.

How did the team join forces?

“Vernonia galamensis cultivated by Dr. David Mills of the Institutes for Applied Research

“We came together the same way we make these vesicles – by self-aggregation,” jokes Linder. “There was a lot of ‘chemistry’ and attraction between the members of the team.”
It is the most lethal virus known to man, but no one knows where it comes from. It is called Ebola and it kills up to 90 percent of the people infected with it. Yet in Africa, where there have been recent outbreaks of Ebola, some people have survived. Virologist Dr. Leslie Lobel wants to know why.

“One reason Ebola is so lethal is that the virus overtakes the immune system very rapidly. But the few people who have survived seem to have immune systems that were able to compensate very quickly,” states Lobel, a member of the Department of Virology in the Faculty of Health Sciences. “My view is that probably the survivors have developed cellular immunity and/or neutralizing antibodies that are able to fight off the virus.”

Lobel is convinced that the most effective way to control deadly infectious diseases caused by viruses like Ebola and smallpox is through the use of human monoclonal neutralizing antibodies. This belief is based on the observation that in many instances traditional antivirals are not very effective against these diseases and mass vaccination is dangerous and not practical in some situations.

Lobel recently immigrated to Israel from New York, where he was on the faculty of the College of Physicians and Surgeons of Columbia University. While at Columbia, he teamed up with fellow-immunologist Dr. Ilya Trakht to develop a cell line that could efficiently fuse with human peripheral blood lymphocytes (the white blood cells that fight disease). To harness the power of those white blood cells, Lobel and Trakht eventually developed a cell line, MFP-2S, that supersedes others. It is made up of 80 percent human and 20 percent mouse DNA. This fuses with human lymphocytes at a high level of efficiency and produces stable hybridomas that secrete monoclonal antibodies in large quantities. With MFP-2S, Lobel harvested “human antibody producing cells” from peripheral blood specimens and created cells that literally live and secrete human monoclonal antibodies forever.

“Under normal circumstances, white cells die outside the body. One way to get them to live forever is to infect them with a virus, but then their products cannot be used on humans,” explains Lobel. “The aim is get the cell to live forever in the most benign way and to use it to fight and treat diseases in biological warfare scenarios.”

The threat of biological warfare...
is real enough. It is no secret that during the cold war the Soviet Union developed an offensive bio-weapons program, “weaponizing” some of the most lethal viral diseases known to mankind. Of those diseases, says Lobel, smallpox, or variola major, is the greatest concern because it is highly infectious and, having been eradicated as a disease, there is little immunity against it today. The younger generation has never been vaccinated. “It can kill up to 50 percent of those infected. People really forget how horrible it is.

“Frankly, before 9/11, people thought I was exaggerating when I talked about producing human monoclonal antibodies to use against serious viral disease for bio-defense,” relates Lobel. “They said I was wasting my time. After those events, everyone changed their minds. Suddenly there was more interest in funding for biodefense-related research.”

Smallpox is still a potential bio-weapon. Before the last Iraqi war, most of Israel’s health workers were vaccinated against it. But, Lobel points out, the vaccine itself is dangerous, with a high mortality rate. “You can’t really vaccinate large numbers of people against a disease like smallpox, that isn’t circulating anymore, without causing serious problems. It’s a dilemma.”

Since it is impossible to vaccinate people for all potential threats, the idea of creating a therapeutic arsenal of human antibodies that could protect a population both before and after an outbreak seemed a good idea to Lobel. He has a valuable ally in this quest: the U.S.-based company Acceptys, Inc., a biotech company that focuses on the development of human antibody therapies for cancer and infectious diseases. Lobel also secured funding for the development of human immunotherapy for smallpox from the University-affiliated B.G. Negev Technologies. A major part of his lab’s research has been taken up with producing antibodies against smallpox. He believes clinical trials of human monoclonal antibodies can begin within a year.

Lobel has now turned his attention to the dreaded Ebola virus. “I became interested in this because even though Ebola kills such a high percentage of those infected, there are some survivors. There’s evidence that some people survive because their immune system seems to have caught up a little quicker.”

In experiments in which blood taken from Ebola survivors was transfused into people stricken with the disease, they survived. “This is a very deadly virus; something is going on here, something in the immune system of these people allowed them to survive,” says Lobel. “I was intrigued, because I thought maybe we could pluck out the antibodies in these people’s systems that could neutralize Ebola, and even if we could increase the survival rate by 20 percent, we’d be doing a great job.”

But how to get the blood samples? Virologist Robert Downing of the Ugandan Virology Research Institute liaised between Lobel and Ugandan researcher Julius Lutwama, who had been to the border area of Gulu, the site of a huge outbreak of Ebola three years ago. There were only 50 survivors. Ben Gurion University funded an expedition to Gulu to draw blood specimens from 49 of these people. Carrying the samples in liquid nitrogen, the researchers brought the blood back to Entebbe. For health reasons, they couldn’t ship the samples to Israel, but they are now being stored and analyzed at the National Institute for Communicable Disease in Johannesburg, South Africa. “Once we’ve tested the samples and show there is no Ebola, we can bring everything back to Israel.”

Lobel is hoping to set up a formal partnership between BGU and the Ugandan Virology Research Institute. “Most virologists in the world are so removed from where the viruses actually come from and evolve,” he maintains. “In Uganda they discovered hundreds of viruses that were previously unknown to the rest of the world, including the West Nile virus. Because it sits on the equator and is hot and humid, it is the perfect place for life forms to evolve.”

And here at BGU we have just the right combination of facilities to unravel their answers.
Let’s face it,” says Prof. Shmuel Hauser of the School of Management’s Department of Business Administration, “the Trading Room is a training program for students, but its viability even as an educational experiment will be measured partly by its ability to make money. It will have to show a profit in order to prove itself.”

That’s an added dollop of pressure for the 14 graduate students majoring in Finance currently enrolled for credit in an innovative, year-long course in which they act as investment-portfolio managers. This is not virtual investment, Hauser reiterates, but investment with real money in real markets, using a seed fund of NIS 1.5 million (about $350,000) provided by two real clients, Ben-Gurion University itself and Israel’s largest bank, Bank Hapoalim.

The primary difference between the students at the Eva and Irwin Simon Trading Room and an actual portfolio-management company, Hauser adds, is that these student managers charge no fees. In addition, they are limited by University guidelines to invest primarily in government bonds, with a small percentage of corporate bonds, stocks and options – none of which is too risky – while under Israeli law, banks are prohibited from investing in the stock market, further reducing the risk.

The program, which began in June, doesn’t yet have financial outcomes to report, but the students, laboring well beyond ordinary academic schedules, are hard at work in the hi-tech Trading Room donated by the Simon family and Bank Hapoalim on the ground floor of the new School of Management building. At least one student is always in the Room during regular trading hours in Israel, tracking market developments, using state-of-the-art software, computers and an electronic wall-board connected in real time to the Tel Aviv Stock Exchange.

The students meet continually in small groups to provide macro-analysis of market trends and recommendations on which stocks, bonds and short-term bridging investments to pursue. At least once a week, the whole group assembles to make and implement decisions and to plan future moves. They must consult with representatives of the Bank and the University, who authorize their investment decisions and provide weekly written evaluations of their progress.

But why use real money? Wouldn’t the same learning process happen if the students made the decisions on paper and then followed up on the results? Hauser doesn’t think so. “If the money is real,” he says, “it forces the students to consider all risks very carefully. There’s a big difference in the decisions made when the money is real and when it’s all just on paper.”

Not that virtual learning isn’t also valuable. Next year, the Trading Room’s training functions will be expanded with a second group of students managing virtual portfolios using software that mimics actual transactions. At the same time, a new group of top students will inherit the actual investment boodle left behind by this year’s Trading Room student managers and continue the management of real investments.

Hauser initiated the Trading Room program and is responsible for its development as an academic program. But because he wears “another hat” as chief economist for the Israel Securities Authority, potential conflict of interest keeps him from directly supervising the students’ analysis and investment decisions, a function that is handled by another instructor.
Hauser, who holds a Ph.D. in Finance from Temple University in Philadelphia, has a simple goal for the Trading Room. “I want the students to learn – and to make enough money to attract more clients.” Hauser’s hope is that the students at the Eva and Irwin Simon Trading Room will ultimately lure a base of up to five clients, the limit under Israeli law for managers who do not yet have a license. “We’re attempting to create something unique here at BGU, to provide a program that gives students a high level of academic training along with practical experience,” he adds.

The two-year graduate program in Finance is now designed so that the students are automatically exempted from the qualifying exams of the Israel Securities Authority (except for the Ethics section, which all applicants must complete).

Hauser ultimately aims to get the experience in the Trading Room approved by the Israel Securities Authority as the nine-month practical internship required for licensing as a Portfolio Manager. “But that’s in the future,” he acknowledges.

Hauser publishes regularly in leading finance journals on his specializations, which include options, regulation of security markets and the micro-structure of trading mechanisms. He praises the University for providing a “great atmosphere” in which new ideas can be developed. “You’re given the opportunity to initiate,” he elucidates. “When I came up with the idea for the Trading Room, they didn’t say no, they were open, and now here we are, up-and-running.”
Among the participants from the United States at the Board of Governors Meeting was a delegation of young people from the Tomorrow’s Leadership division of the American Associates.

Tomorrow’s Leadership, under the directorship of Rebecca Weinstein, strives to create the next generation of AABGU leaders. Geared towards people in their twenties and thirties, it is dedicated to increasing awareness and raising funds in support of BGU. It introduces young professionals to current developments at the University and creates an atmosphere where they can forge a connection and commitment to BGU.

Sol and Edy Freedman and AABGU provided scholarships to the attendees to encourage them to participate. All the attendees, many of whom are also alumni of the University’s Overseas Student Program, are donors to AABGU, and are involved in fund-raising efforts for the Tomorrow’s Leadership Endowed Scholarship Fund. During their visit, they met with representatives of BGU’s Student Association, with whom they hope to remain in contact, now that they have returned to the United States. Their visit this year to BGU is hopefully the start of an annual presence by a contingent of this young and energetic group at the Board of Governors Meeting.
Seventeen students have completed a unique program at BGU aimed at helping Bedouin IDF veterans build a better future for themselves and their community. The program, known as “Shachaf” (Seagull), was created three years ago specifically to help recently-released Bedouin combat veterans and trackers in the Israel Defense Forces make the transition to academic studies. Successful completion of the ten-month course enables students to pursue a Bachelor's degree at the University’s Faculty of Humanities and Social Sciences.

The program is organized in cooperation with the IDF and the Ministries of Defense and Education, with support from the Council for Higher Education and the Gruss Fund. It provides the students with comprehensive support to ease the transition into academia and to cultivate their leadership skills. Twenty-one students from the first class and another 22 from the second have already completed the course and are now enrolled at BGU or one of the affiliated colleges in the Negev.

The participants in the course are also provided with dormitories, free tuition, a living stipend and a grant for books, supplies and tutors. In the specially-tailored program, the students are taught how to study and manage their time and they receive lessons in Hebrew language, math and English.

This is just one of the many specialized pre-academic courses designed to help make higher education accessible to the Bedouin sector. The University has initiated and maintains a number of different programs to advance the Negev’s Bedouin community, particularly through the Bedouin Center, the brain-child of Chairman Emeritus of the Board of Governors, Robert H. Arnow of New York.

“Integrating Bedouin students into the University is an essential part of our mission to bring social justice and equality to the region,” says University President Prof. Avishay Braverman.

Many Bedouin have reached the conclusion that today a higher education is one of the prerequisites for personal progress, as well as for the continued advancement of their community.

Prof. Alean Al-Krenawi (left) with Bedouin students
The Alumni Association continues to grow, and a series of events that took place over the past year has brought many former students back to the campus.

BGU friends and alumni gathered for an evening of music and camaraderie at the home of Raya Strauss Ben-Dror, the new Chairperson of the Israeli Friends. The event, marking the first time that the Israel Friends of BGU have hosted local alumni, provided an opportunity for both groups to get acquainted with one another and to hear from President Avishay Braverman about the new developments at their alma mater. Alumni also met on a separate occasion at the home of BGU graduate Amikam Cohen, CEO of Partner, who chairs the Alumni Association.

Alumni from the School of Management and the Department of Economics came to hear Yoram Gabai, former Commissioner of State Revenues in the Ministry of Finance and today a member of the Board of Directors of Pe’ilim (a division of Bank Hapoalim), lecture on the current economic situation in Israel. His talk focused on the different periods of economic growth in the country and the conditions necessary for the nation to develop and maintain economic autonomy.

Prof. Avia Spivak, Deputy Governor of the Bank of Israel and a member of BGU’s Department of Economics, spoke at a special evening for alumni of the Department of Economics. According to Spivak, “The current situation requires cautious monetary policies that are preferably the result of cooperation between the different economic bodies – particularly the government and the Treasury.” The event was the second in a lecture series organized by the Alumni Association. University President Prof. Avishay Braverman and Rector Prof. Jimmy Weinblatt, both economists, responded to Spivak’s remarks.

Prof. Ayala Malach-Pines, Chair of the Department of Business Administration, gave a lecture to a packed hall of alumni on the subject of “How We Choose Whom to Fall in Love With.” Her lecture was based on her recently-published book that has become a best-seller in Israel.

Hundreds of graduates of the Department of Life Sciences came together for a heartwarming reunion entitled, “A Celebration of Generations.” The Department, one of the oldest at the University, worked together with the Alumni Association to locate some 80 percent of the graduates from the early 1970s. Many of the participants at the event had not been on campus for 20 years or more and were amazed by the state-of-the-art facilities and enthusiasm of the students.

Participants – many of whom had studied under the most difficult conditions – toured the Henwood-Oshry Life Sciences Teaching Laboratories Building and the Toman Family Department of Life Sciences Building. They then enjoyed a nostalgic presentation that lauded the Department’s accomplishments over the past 35 years.

The Alumni Association is strengthening its ties with the BGU Israeli Friends. Together they are seeking to expand activities to include meetings of alumni who hold key positions in the Israeli economy and to interest them in the University and the results of its research, which may lead to fruitful partnerships.
Associates Organizations

ARGENTINA
Lic. Osvaldo Schwartz, President
ASOCIACIÓN ARGENTINA
DE AMIGOS DE LA UNIVERSIDAD
BEN GURÍN DEL NEGUENV
Suipacha 531 piso 9
C-1008 AAM Ciudad Autónoma de Buenos Aires

BELGIUM
Irene Evens, President
Lange Leemstraat 12
B-2018 Antwerp

BRAZIL
Dr. Claudio Luiz Lottenberg, President
Av. Albert Einstein, 627 / 701, 3er andar
05651-901 Morumbi Sao Paulo SP

CANADA
Barry D. Lipson, Q.C., National President
Leo Marcus, Executive Vice-President
NATIONAL OFFICE
TORONTO CHAPTER
100 Finch Avenue West, Suite 506
North York, ON M3J 2V5

MONTREAL CHAPTER
376 Victoria Avenue, Suite 250
Westmount, Que H3Z 1C3

VANCOUVER CHAPTER
1163 West 40th Avenue
Vancouver, B.C. V6M 1V1

WINNIPEG CHAPTER
# 220 – 2025 Corydon Avenue
Winnipeg, MB R3P 0N5

THE EUROPEAN COUNCIL
Ben-Gurion University Foundation
Adelaide House
London Bridge
London EC4R 9HA

UNITED KINGDOM
Senior Consultant to the President: Helen Davis

FRANCE
Gérard Worms, Chairman
Les Amis Français
de l’Université Ben-Gourion
Maison France-Israel
64, avenue Marceau
75008 Paris

GERMANY
Mr. Klaus Krone, Chairman
Dr. Mathias Düpfler, President
Förderer der BGU des Negev e.V
Boehnhertweg 9
D-45359 Essen

ISRAEL
Raya Strauss Ben-Dror, President
ISRAELI FRIENDS OF BGU
3 Shaul Avigur Street
Ezorei Chen, Tel Aviv

JAPAN
Koji Akatsuka, President
FRIENDS OF BGU JAPAN CHAPTER
75-1, Otobe, Tsu
514-0016 MIE

MEXICO
Ing. Pedro Dondisch, President
ASOCIACIÓN MEXICANA
DE AMIGOS DE LA UNIVERSIDAD
BEN GURÍN DEL NEGUEV
(AMAUJB)
Rio Tiber 78
Colonia Cuauhtémoc C.P.
C.P. 06500 México, D.F.

THE NETHERLANDS
Dr. h.c. Joel Wyler, Chairman
Paul A. Nouwen, President
DUTCH ASSOCIATES BGU
Granaria Holdings B.V.
Lange Voorhout 16
P.O. Box 233
2591 CE The Hague

Republic of PANAMA
Moises A. Mizrachi, President
Apartado 7347
Panama 5

Republic of SOUTH AFRICA
Bertram Lubner, President
Alan Teeger, Chairman
NATIONAL & JOHANNESBURG OFFICE
P.O. Box 895
Saxonwold 2132

WESTERN CAPE CHAPTER
P.O. Box 2350
Cape Town 8000

KWAZULU / NATAL CHAPTER
P.O. Box 74050
Rochdale Park 4034
Durban 4034

SWITZERLAND
Michel Halpérin, President
AMIS DE SUISSE DE L’UNIVERSITE BEN-GOURION DU NEGUENV
5, avenue Léon-Gaud
CH-1206 Geneva

UNITED KINGDOM
BEN GURION UNIVERSITY FOUNDATION
The Countess of Avon, Co-President
Lord Weidenfeld of Chelsea, Co-President
Harold Piasner, Chairman
NATIONAL AND LONDON REGION
Adelaide House
London Bridge
London EC4R 9HA

BRIGHTON COMMITTEE
c/o Sam Barsam
47 Hove Park Road
Hove
East Sussex BN3 6LH

MIDLANDS COMMITTEE
c/o Dr. Esther Barnett, Chair
2 Belle Walk, Moseley
Birmingham B13 9DF

UNITED STATES
Lisa Gaines, President
Vivien K. Manion, Executive Vice-President
AABGU NATIONAL OFFICE &
GREATHER NEW YORK REGION
1430 Broadway, 8th Floor
New York, NY 10018

AABGU NEW ENGLAND REGION
1318 Beacon Street, Suite 8
Brookline, MA 02446

AABGU MID-ATLANTIC REGION
The Pavilion at Jenkintown
261 Old York Road
at Wyncote Road
Suite 417A, P.O. Box 1128
Jenkintown, PA 19046

AABGU PALM BEACH
Hollywood, FL 33021
3900 Hollywood Blvd., PH-E

AABGU MID-ATLANTIC REGION
The Pavilion at Jenkintown
Mission Bay Office Plaza
20283 State Road 7
COUNTY REGION
Boca Raton, FL 33498

AABGU PALM BEACH
COUNTY REGION
Mission Bay Office Plaza
20283 State Road 7

AABGU GREATER FLORIDA REGION
3900 Hollywood Blvd., PH-E
Hollywood, FL 33021

AABGU PALM BEACH
COUNTY REGION
Mission Bay Office Plaza
20283 State Road 7

AABGU GREATER TEXAS REGION
24 Greenway Plaza, Suite 498
Houston, TX 77046

AABGU NORTHWEST REGION
220 Montgomery Street, Suite 498
San Francisco, CA 94104

AABGU SOUTHWEST REGION
9911 West Pico Blvd. Suite 710
Los Angeles, CA 90035

Ben-Gurion University of the Negev, P.O. Box 653, Beer-Sheva 84105, Israel | Fax: 972-8-6472937 | E-mail: prpub@bgumail.bgu.ac.il | Website: www.bgu.ac.il