

WINTER 2011

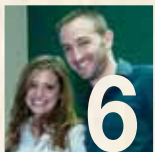
BGU & YOU

NEWSLETTER OF BEN-GURION UNIVERSITY OF THE NEGEV

אוניברסיטת בן-גוריון בנגב



Ben-Gurion Day Ceremony Honors Outstanding Achievement



Innovative Heritage Program Wins Business Plan Competition



New Interdisciplinary Program for a Doctoral Degree in Nanotechnology



Debut Photo Exhibition of Art Student Gives a Fresh Take on Remembrance

Israeli and Italian Ministers of Agriculture Sign **Memorandum of Understanding**



Italian Minister Giancarlo Galan (left) and Israeli Minister Shalom Simhon

During the ceremony Galan noted that since arriving in Israel, "I was able to witness in person the extraordinary effort that the government and the people of Israel have made and continue to make in turning a semi-desert territory with such limited precipitations of rain into fertile land. I was utterly impressed by the progress realized in the region of the Negev, where the desert is, as a matter of fact, receding.

"This MOU is not a generic and abstract protocol, but it focuses on specific issues and areas of joint interest, on which we have decided to concentrate. I want to underline in particular the area regarding the adjustment of agriculture to climate change and the mitigation of its effects," he continued.

Simhon outlined the similarities between the two countries, both of which "border the Mediterranean Sea and have modern and sophisticated agricultural sectors rooted in ancient traditions, which is reflected in the seven species referred to in our ancient sources, such as the grape to produce wine and the olive to produce olive oil."

He compared the two countries and added that "Israel has developed knowledge and technology in the fields of irrigation, dairy farming, greenhouses and more that efficiently serve its own agricultural sector and many countries around the world. Israel and Italy both assist developing countries – including dryland and desert countries – to expand their agriculture, improve the security of their food supply and reduce famine."

Italian Minister of Agricultural, Food and Forestry Policies Giancarlo Galan and Israeli Minister for Agriculture and Rural Development Shalom Simhon signed a bilateral Memorandum of Understanding, noting that their two countries share a number of research priorities. The memorandum includes an annual call for bilateral cooperative research projects from the two ministries that advance these common interests and was signed during the third annual international conference on "Drylands, Deserts and Desertification" organized by the Jacob Blaustein Institutes for Desert Research.

BGU is powered by people



Learn more about Green Campus <http://cmsprod.bgu.ac.il/Eng/Units/green/>



Join us on Facebook <http://tinyurl.com/BGUonFB>



Follow us on Twitter <http://twitter.com/BenGurionU>



Executive Secretary of **United Nations Convention to Combat Desertification** Addresses BGU Conference



Luc Gnacadja, Executive Secretary of the UN Convention to Combat Desertification

It's not often that an official says a global environmental problem that affects two billion people is solvable. But that is what United Nations Convention to Combat Desertification (UNCCD) Executive Secretary Luc Gnacadja told the audience on the first day of the Third International Conference on Drylands, Deserts & Desertification: The Route to Restoration last November.

Speaking to a crowd that came from all around the world for four days of intensive knowledge sharing and local experiences, Gnacadja maintained that making the problem a higher priority among world leaders could have dramatic results. "Drought and desertification are predictable. They are the result of public and even global policy failures, but are also reversible."

The executive secretary's address capped the first day of the conference, which brought together close to 600 representatives from 63 countries. The third

biannual conference focused this time on restoration and not just data sharing on the phenomenon.

Desertification has thrown millions into poverty and represents a particularly distressing environmental disaster around the world. In Nigeria, the Federal Environment Ministry has an entire 100 person department devoted solely to the topic, one of two representatives at the conference said. They traveled to the conference to learn hands-on techniques to help their nation of 150 million people.

According to Chairman of the Conference's Executive Committee BGU Prof. Alon Tal, the problem is one of information and policies. "Trend doesn't need to be destiny," he said, "The problem is policies and information dissemination. This conference is the scientific think tank for UNCCD and a source of practical technical information," he added.

The sessions featured public health issues caused by desertification alongside sessions detailing successful methods of rolling it back such as afforestation or modifying planting to include a half moon indent to focus and trap water.

Delphine Bernadette Ouedraogo came from Burkina Faso to present at one of the panels, but mostly she came to pick up techniques and technology and to forge relationships with Israeli experts and institutions to help her country overcome desertification.

"Today we are at the same stage as Israel was 100 years ago. Why should we invent new techniques? We should take what we saw here and apply it at home. We can do the same thing and 200 years from now, we could be the leaders if we take Israel's experience," she said.

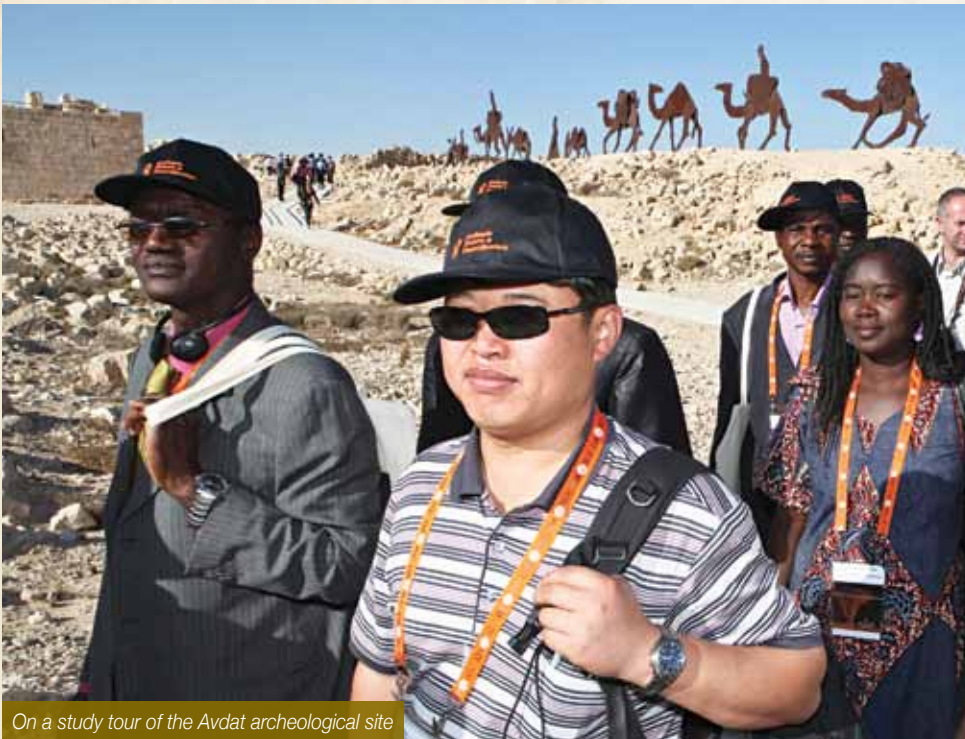
The Ben-Gurion University conference is not an official gathering of the UNCCD, but offers different benefits, she said. "The UNCCD world group doesn't have technical meetings like this. The annual meetings are about politics, about negotiating, fundraising and sharing indicators," she added.

Ouedraogo pointed out that desertification was a global problem and each country wasn't just working to solve its local problem, but the world-wide one. During the conference, she also began hammering out an agreement with the Israeli Foreign Ministry's MASHAV organization for a delegation to come and bring drip irrigation to Burkina Faso.

"Drip irrigation doesn't exist in my country. To irrigate one hectare, you have to do it manually with a donkey if you are poor. Here, drip irrigation is everywhere," she said.

Prof. Michal Shapira

Named Dean of Kreitman School



On a study tour of the Avdat archeological site

James Gao, the China Clean Water Alliance Chairman, couldn't hide his enthusiasm and leaped in the air upon arrival. "To combat desertification is just like the martial arts:

both determination and skill are needed," he offered by way of explanation.

Determination and skill indeed.



James Gao of China couldn't hide his enthusiasm



Prof. Michal Shapira

Prof. Michal Shapira from the Department of Life Sciences has been appointed Dean of the Kreitman School of Advanced Graduate Studies, replacing Prof. Ramy Brustein who completed his tenure.

The Kreitman School of Advanced Graduate Studies is responsible for all doctoral students studying at BGU. Its role is to accompany the students throughout their studies and assist in the administrative and academic aspects of the process.

Shapira joined BGU in 1995. She previously earned her Ph.D. at the Weizmann Institute of Science and completed her post-doctoral training at the University of Michigan, Ann Arbor. Her research interests include general and gene-specific translation regulation in *Leishmania*, translational regulation in chloroplasts during oxidative stress, and genetic modification of unicellular algae.

She served as the chairperson of the teaching committee in the Faculty of Natural Sciences from 2004-2008, and then headed the program in Marine Biology and Biotechnology at the BGU Campus in Eilat, during which she developed the academic program for advanced degrees in this track.



Ben-Gurion Day Ceremony Honors Outstanding Achievement



From L-R: Prof. Eliora Z. Ron, Amram Mitzna, Prof. Rachel Elboim-Dror, Prof. Yekutiel Gershoni, Yehudit Mayer and Prof. A.B. Yehoshua

In a festive ceremony that took place on Ben-Gurion Day, which commemorates the death of Israel's first Prime Minister David Ben-Gurion, the University awarded five Honorary Doctoral Degrees and the Ben-Gurion Negev Award to Israelis who have made significant contributions to science and the humanities.

The honorees were as follows: acclaimed author and University of Haifa professor A.B. Yehoshua, who was hailed in his degree citation as "a creative storyteller, a magnificent author whose fascinating stories and rich, bold descriptions bring the reality of Jewish and Israeli life through the ages to the written page; in acknowledgement of one of the most prominent Hebrew writers of our time."

Prof. Rachel Elboim-Dror was recognized

as "an esteemed scholar in the field of education history" as well as "the founder of the first local study track for education policy, planning and administration at the Hebrew University of Jerusalem, and who served as its director for many years."

Prof. Yekutiel Gershoni was hailed as "a learned academic who researched the political history of West Africa and the relationships between Africans and African-Americans, taught many students and researchers, and contributed to the advancement of higher education by filling key positions, including head of the history track in the Israel Science Foundation and President of the Liberian Studies Association in the United States" and "an inspiring sportsman who participated in dozens of competitions in Israel and around the world, won medals in three Paralympic Games and

brought great honor to the State of Israel."

Amram Mitzna was honored for being "a decorated officer and fighter who served in many key positions in the Israel Defence Forces, including Commander of the Central Command and Head of the Planning Branch; for his service as mayor of Haifa and a member of Knesset; and most recently "for his uncompromising efforts and deep commitment" to strengthening the southern town of Yeruham which represented a "unique contribution to the development of the Negev and the advancement of its residents in the spirit of the vision of David Ben-Gurion, to realize the potential of this spectacular region."

Prof. Eliora Z. Ron, Dean of the Faculty of Natural Sciences and a founder of the Department of Molecular Microbiology and Biotechnology at Tel Aviv University was acknowledged as "an exceptional scientist, a pioneer of molecular biology in Israel, whose study of bacterial reaction mechanisms to environmental changes opened new fields of theoretical and practical research and made an invaluable contribution to the fight against disease."

Artist Yehudit Mayer received the Ben-Gurion Negev Award in recognition of her being "an exceptional artist who imbues each and every sculpture, vessel and wall relief that emerges from beneath her hands with unique qualities; a talented sculptor whose works meld primal scenes of the Negev with human experience, whose inspiration, drawn from its soil, is reflected in all her creations and whose works are displayed in exhibitions in Israel and abroad." She was also praised for her "unceasing and fruitful efforts to establish the Artists' House in the Negev in Beer-Sheva."

BGU Joins Singapore Research Center Initiative

A research team led by Prof. Robert Marks from the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering has joined a unique initiative focused on energy efficiency under the auspices of Singapore's National Research Foundation's Campus for Research Excellence and Technological Enterprise (CREATE) program.

The group, which will be working in association with researchers from the Hebrew University of Jerusalem and Nanyang Technological University, will constitute the seventh CREATE research center opened since the program was launched in 2008. Each university will bring their complementary strengths together under this collaborative research effort to develop new nanomaterials that will greatly increase the efficiencies of existing energy

and water management technologies.

The project aims to develop precisely-tailored nanostructures and processes to optimally achieve the increase in performance for different energy and water applications. Nanomaterials have been shown to significantly improve efficiencies in energy harvesting and conservation as well as water sensing and recycling.

"This is a large-scale international project, and BGU has the honor of being part of it," said Prof. Marks. "Several BGU professors will be working on projects there, which we – and our counterparts in Singapore – hope will someday become companies. In addition, we will be hosting students and visiting researchers from Singapore here at BGU."

It's All in the Name

The proliferation of bylines characterized the news as an imperfect, all too human account of reality and opened the way for celebrity journalism, explains Dr. Zvi Reich from the Department of Communication Studies in an article recently published in the academic journal *Journalism*.

Focusing on *The New York Times* and *The Times* of London, Reich explores the phenomenon of bylines in modern journalism and documents the process through which journalists fought to receive name recognition.

"Today, when we open a newspaper, we take it for granted that we will see a byline – the name of the reporter who authored the piece – at the beginning of each article. But the byline is a relatively new phenomenon. Papers as respected as *The New York*

Times avoided using bylines as a means to underplay the importance of the individual reporters," he says.

Reich found that the growth of bylines was a slow process. First, the newspapers tried to avoid specific names, in an effort to maintain an authoritative voice. Second, bylines were used to promote organizational goals. Then, the papers attributed stories to the names of a select few staff writers and finally gave up the selective bylines, crediting everyone in nearly all instances.

"This study traces the policies that the newspapers used to maintain the balance of power over reporters and the process that they underwent as writers and other contributors pushed for recognition and control of their work," he concludes.

BGU Wins 3 QS-APPLE Creative Awards



Faye Bittker

The University won three QS APPLE Creative Awards for the Best International Educational Promotional Designs at the QS-APPLE conference in Singapore in November.

Open to the 190 participating institutions from 42 countries at the conference, the entries were judged by a team headed by D. William Gibson from the SAE Institute, Australia – the largest creative media technology institute in the world.

BGU received a Silver Award for the Most Creative Corporate Institution Video for its 40th anniversary movie *From Vision to Reality*; a Silver Award for the brochures of the Ginsburg-Ingerman Overseas Student Program, and a Bronze for the coordinating website, both created and produced by American Associates, Ben-Gurion University of the Negev (AABGU).

Chemist Recognized by Prestigious Journal

Dr. Ashraf Brik of the Department of Chemistry and the Edmond J. Safra Center for the Design and Engineering of Functional Biopolymers had his recent paper selected among the 12 best stories in *Chemical Year in Review* 2010 by the prestigious weekly trade magazine of the American Chemical Society, *Chemical & Engineering News*. The article, titled "Total Chemical Synthesis of Di-ubiquitin Chains," has received widespread recognition.

Dr. Brik's research group has been engaged in the last three years in projects related to chemical synthesis of proteins. The group's most recent paper, "Towards Elucidation of the Role of Ubiquitination in the Pathogenesis of Parkinson's Disease with Semisynthetic Ubiquitinated α -Synuclein," was recently selected as a "Hot Paper" by the editors of the *Angewandte Chemi* journal for research done in collaboration with Prof. Hilal Lasheul from the Swiss Federal Institute of Technology Lausanne.

Dr. Brik's group pioneered the development of chemical methods to prepare ubiquitinated peptides and proteins, thus obviating the need to use the enzymatic machinery to prepare these important bioconjugates.

Brik is the recipient of many grants and awards, including from the Wolfson Foundation, the Israel Science Foundation, the Edmond J. Safra Foundation, the Human Frontier of Science Program (HFSP), a Marie Curie International Re-Integration Grant, and a Ma'of Fellowship.

Innovative Heritage Program Wins Business Plan Competition



A unique program, titled "The Battle Heritage Project," won first place in the annual competition "Business Writing Plan – From Idea to Enterprise." Sponsored by the Bengis Center for Entrepreneurship and Hi-Tech Management, under the direction of Prof. Dafna Schwartz, the ceremony took place as part of Global Entrepreneurship Week in January.

The project was created by Noa Shemesh-Mandelzweig and Lior Mandelzweig, both graduates of the Department of Industrial Engineering and Management, and Master's students in the Department of Business Administration in the Guilford Glazer Faculty of Business and Management.

Their idea for the winning plan originated three years ago, during their honeymoon in Thailand, when the young couple heard a chance conversation between a group of young Israelis talking about their upcoming enlistment.

"We were both officers in the Israel Defense

Forces – we are very Zionist and education-oriented, and when we heard them and began to speak to them about the country, the army and their role, we were struck by how many gaps existed in their knowledge and how that affected their value system," recalls Noa.

In the months following that conversation, the Mandelzweigs came up with the idea of creating multi-media presentations that would address that gap, with the goal of deepening the feeling of belonging to the country and raising the level of motivation for significant and important service in the IDF.

After consolidating the idea, testing the software and writing a business plan with the Center's help, their initiative was born – a social-educational project that offers a unique docu-theater experience that describes the development of historical events leading to the establishment of the State of Israel and analyzes questions of moral and ethical standards since its establishment.



Micro-Organisms and the **Future of Fuel**

Dr. Lital Alfonta's work is well on its way to making a difference on a global scale. That's because Alfonta, from the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering and the Edmond J. Safra Center for the Design and Engineering of Functional Biopolymers, is applying forward vision to scientific endeavors that, as they transpire, can change the way scientists delve into outer space and search oceanic depths.

Earlier this year she received a prestigious €1.4 million European Research Council Grant for "pioneering frontier research in any field of science, engineering and scholarship."

Together with her husband Dr. Michael Meijler, a researcher in the Department of Chemistry and also the Safra Center, Alfonta is seeking a way to couple enzymes with micro-organisms to produce energy. "Basically, it's about finding efficient ways of using micro-organisms as catalysts in fuel cells," she explains.

The micro-organisms she refers to are yeast and *E. coli* bacteria that would be genetically modified to fuel cells and power. The power produced, however, is low level. It couldn't be used to run a car but might be applied to space satellite stations beaming back images to earth.

"The micro-organism/enzyme fueled batteries would make an outer space monitoring system more efficient because there wouldn't be batteries and maintenance involved. That cuts costs for space exploration."

Mico-organisms could also be used for implantable devices, Alfonta says, such as bio-medical devices for patients. Pacemakers and sensing devices such as glucose blood level monitoring devices generally running on batteries could be fueled by Alfonta's alternative method.

But patients might bristle. "I see a problem in using genetically modified organisms – which

is an ethical issue with a lot of people," she explains. "Also, patients might not want to release the sort of micro-organisms we're talking about here into the body without guarantees that there wouldn't be any leakage."

She and her team of researchers are working diligently to find solutions that provide the guarantees patients would need to feel safe. Currently, their main focus is formulating how to couple micro-organisms with electrodes so that a current flow transfers electrons from one place to another and regenerates energy catalysts once the enzymes lose activity.

One thing Alfonta is sure of: "No one else in the global forum is doing this," she beams. "Genetically modifying micro-organisms for bio-fuel cell application is a first and it's unique because we have knowledge from the worlds of electro-chemistry and molecular biology and we are combining them both."



Planning for **Future Expansion**

A tunnel has been constructed that runs under the railway tracks adjacent to the Gate of the Future. The new underpass connects the existing Marcus Family Campus with land earmarked for the University's future expansion and will allow vehicles and pedestrians to pass between the areas, uninhibited by train traffic.



Snapshots

A glance at events at BGU



In December, the latest crop of Israeli Air Force pilots and navigators received their "wings" and their undergraduate degrees from BGU through the unique Pilot Academization Program. In the photo: Stav, one of the two women pilots



Susan Glass and Arni Thorsteinson unveil the Susan Glass and Arni Thorsteinson Lecture Hall plaque at the Glazer Faculty of Business and Management



Students observe the recent solar eclipse with instructors from the Ilan Ramon Physics Center



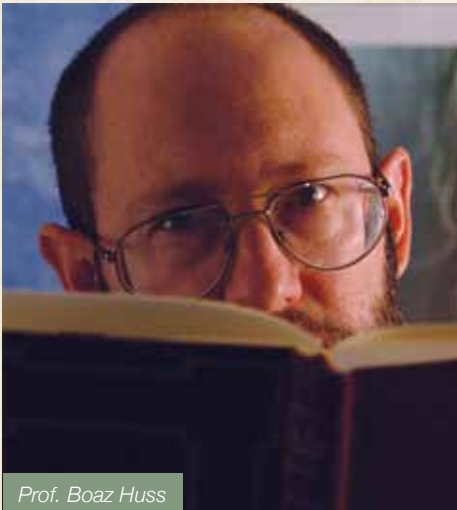
Prof. Bertram Schefold from Goethe Universität, Frankfurt am Main (2nd from right), received the 2010 Guggenheim Award for the History of Economic Theory from BGU. From left: BGU Rector Prof. Jimmy Weinblatt, Ambassador of Switzerland to Israel Walter Haffner, Prof. Thomas Guggenheim



Keren Hayesod UIA scholarship recipients were awarded certificates during a delegation visit to BGU



Specially-Designed Courses Bring **Judaism and Jewish Culture** to BGU Students



Prof. Boaz Huss

Students from all disciplines are responding enthusiastically to a new initiative offering academic courses on Judaism and Jewish

culture. The goal of these courses is for every BGU student, regardless of their study program, to take at least one course in Judaism. The new set of courses aims to provide basic knowledge on modern Judaism and Jewish culture through the exploration of a wide spectrum of topics.

Initiated by the Goldstein-Goren Department of Jewish Thought, with the support of Elie Horn of Brazil, the program was launched in the fall semester. More than 300 students registered – a number that surprised and pleased the program's creators. In the spring semester, three courses will be offered.

“Our ultimate aim is to have every student at BGU take a course in Judaism so that the University will fulfill its role in making Israeli

youth more knowledgeable and proud of their Jewish heritage,” said Prof. Boaz Huss, an organizer of the initiative, who is teaching one of the courses.

“We see this project as only the beginning,” he continued. “In the future, we hope to gradually offer additional courses and have more students take them so that eventually all our students will receive this extremely important enrichment on Judaism and Jewish culture.”

This year's courses include: Jewish Holidays: From the Bible to the Present; Kabbalah and Jewish Spirituality; Jewish Life Cycle; and Judaism and the Issues of the Day.

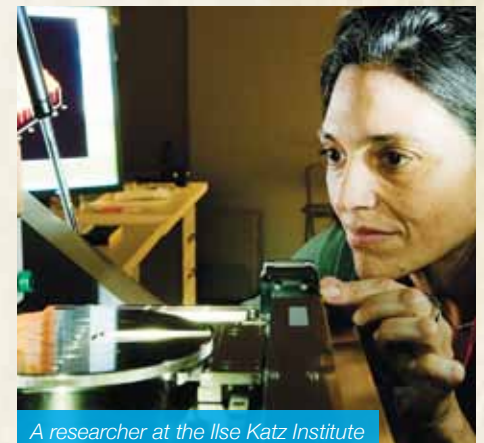
New Interdisciplinary Program for a Doctoral Degree in **Nanotechnology**

The Ilse Katz Institute for Nanoscale Science and Technology has launched the Merage Scholarships for Outstanding Doctoral Students. The program targets promising graduate students who already hold a degree in Natural, Health or Engineering Sciences.

Made possible through the support of the Merage Foundation, the program aims to promote doctoral studies while combining different disciplines relevant to the emerging field of nanotechnology. Scholarships include full tuition coverage. Five new

students will be recruited to the program each year, ultimately leading to a total of 20 students.

The Merage Foundation is a privately owned foundation that concentrates its philanthropic activity in the Negev region. The Foundation supports regional development through a series of entrepreneurial and business development projects, educational and cultural programs, infrastructure investments and tourism promotion.



A researcher at the Ilse Katz Institute

Excellence recognized



Prof. Arie Issar

Prof. Arie Issar Awarded Ben-Gurion Prize

The Ben-Gurion Prize 2010-2011 was awarded to Prof. (Emeritus) Arie S. Issar of the Department of Environmental Hydrology and Microbiology in the Zuckerberg Institute for Water Research at the Jacob Blaustein Institutes for Desert Research. Issar is one of the world's leading researchers in the field of development of water resources in arid areas and was the founder of the Water Resources Center at Sede Boqer before it became the Zuckerberg Institute.

The award citation describes Prof. Issar as: "... an exemplary man, in the spirit of the vision of David Ben-Gurion. He is not only

a world-renowned scientist in the field of water resource research and paleoclimate change, but is known also for his personal commitment to the development of the Negev by settling in Sede Boqer, for researching the area, and for his findings, which enable the development of the Negev and the Arava, as well as for dedicating his life to the security of the state and promoting Israel around the world."

The Ben-Gurion Prize is awarded each year to researchers, writers, intellectuals and distinguished figures who "by their actions perpetuate David Ben-Gurion's vision."

Prof. Smadar Cohen Receives ICERS Award

Prof. Smadar Cohen, incumbent of the Claire and Harold Oshry Chair in Biotechnology and member of the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering, has been awarded the 2010 ICERS Award for Outstanding Achievements in Controlled Release in recognition of her pioneering work in the field of Controlled Release in Tissue Regeneration Technologies. Cohen received the award at the 7th Annual Meeting of the Israeli Controlled Release Society.

Cohen holds 26 patents, published numerous papers and edited two books. She is the Associate Editor of the journal *Annals of Biomedical Engineering*, on the editorial board of the journal *Tissue Engineering*, and on the Scientific Advisory Board of several biotechnology and nanotechnology companies. She is also a member of the Katamon Committee of the Israel Ministry of Trade and Industry Magnet Program.

Dr. Moshe Hertzberg Earns France Israel Foundation Award

Dr. Moshe Hertzberg of the Department of Desalination and Water Treatment in the Zuckerberg Institute for Water Research at the Jacob Blaustein Institutes for Desert Research has been awarded the 2010 Award of the France Israel Foundation for Academic Excellence in the Field of Water. The France Israel Foundation was established to promote better cooperation and understanding between the French and Israeli civil societies.

Hertzberg's research focuses on improving the performance of wastewater reclamation and seawater desalination processes. He is part of a team that was recently awarded a highly competitive grant from USAID's MERC (Middle East Regional Cooperation) Program.

Prof. Ron Folman Wins Lamb Award

Prof. Ron Folman, head of the Atom Chip Lab, and member of the Department of Physics and the Ilse Katz Institute for Nanoscale Science and Technology, has received the prestigious 2011 Willis E. Lamb Award for Laser Science and Quantum Optics. Presented annually for outstanding contributions to the field, the prize honors Lamb, a famous laser scientist and laureate of the 1955 Nobel Prize in Physics.

Folman built an advanced nanofabrication facility for atom chips. The facility also serves dozens of BGU researchers from a variety of fields and researchers in other Israeli universities and the Israeli hi-tech industry. Lately, requests for advanced chips have also been received from laboratories in Europe and the USA.

imized

Prof. Boris Krasnov

Awarded the Minister of Immigrant Absorption's Prize for Outstanding Scientists

Prof. Boris Krasnov, a member of the Mitrani Department of Desert Ecology at the Jacob Blaustein Institutes for Desert Research, has been awarded the Minister of Immigrant Absorption's Prize for Outstanding Scientists, as selected by a judging committee of the Israel Academy of Sciences and Humanities.

Krasnov joined BGU immediately upon his arrival from the former Soviet Union in 1990. He has published numerous papers, authored three books, and is a member of the editorial board of several prestigious scientific journals. In his research he combines experimental work on physiological questions, field work on ecological questions, and comparative or meta-analyses on biogeographical or evolutionary questions.

Prof. Yitzhak Hen Named To Martin Buber Society

Prof. Yitzhak Hen of the Department of General History and incumbent of the Anna and Sam Lopin Chair in History has been elected as a senior fellow of the Martin Buber Society of Fellows in the Humanities at the Hebrew University of Jerusalem.

Hen is an historian of the early medieval West, specializing in the cultural and religious history of the post-Roman Barbarian kingdoms. The Martin Buber Society of Fellows in the Humanities is a German Foundation financed by the Federal Ministry of Education and Research (BMBF).

Dr. Gonen Ashkenasy

Wins ERC Grant

Dr. Gonen Ashkenasy, a senior lecturer in the Department of Chemistry and Chair of the Edmond J. Safra Center for the Design and Engineering of Functional Biopolymers, was awarded a prestigious European Research Council (ERC) starting grant for his project entitled "Systems chemistry from bottom-up: Switching, gating and oscillations in non-enzymatic peptide networks."

In a series of papers in leading chemistry and physics journals, Gonen's group was able to highlight several features of "Systems Chemistry" and suggested that these may be the first steps towards the development of artificial cells.

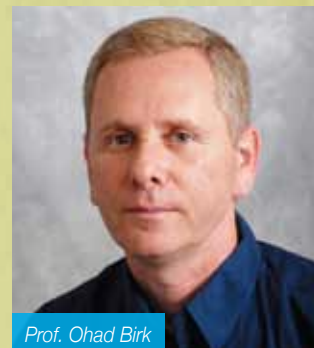
Three Researchers Win Britain-Israel Research and Academic Exchange Partnership (BIRAX) Awards

Three researchers received grants from the British Council through the Britain-Israel Research and Academic Exchange Partnership (BIRAX), a program that aims to strengthen academic cooperation between universities in the UK and Israel.

BGU received three of the ten grants, which were awarded on the basis of their "innovation, the strength of the collaboration and long term prospects."

At the ceremony, Britain's Minister for Universities and Science David Willetts said: "The appetite for collaboration that exists between the higher education institutions in our countries is clearly very healthy. I hope to see even more high-quality joint research between the UK and Israel in the future."

Researchers Find Defect in Amino Acid



A research team led by Prof. Ohad Birk of the National Institute for Biotechnology in the Negev (NIBN) has identified the first human disease associated with a defect in the production of the 21st amino acid, selenocysteine (SEC).

The team demonstrated that human mutations that prevent the formation of SEC result in a progressive disease of severe mental retardation and epilepsy beginning at infancy. One out of every forty Jews of Moroccan and Iraqi ancestry may be carriers of this mutation. As the disease is both severe and common, testing for these mutations is expected to become a routine prenatal screening test in these two populations, enabling prevention of future cases.

The human genetic code, as deciphered some 50 years ago, encodes 20 amino acids, which are the building blocks of all proteins in the human body. However, in recent years it has become apparent that a 21st amino acid exists.

The research was done by Orly Agamy, a Ph.D. student in Birk's group, and was published recently in the *American Journal of Human Genetics*. Drs. Bruria Ben Zeev, Tally Sagie, Dorit Lev and Dieter Soll also participated in the study. It was funded by the Morris Kahn Family Fund, the Legacy Heritage Fund and the Israel Science Foundation.



Debut Photo Exhibition of Art Student Gives a Fresh Take on Remembrance



From the exhibit, *Daddy's Little Girl*

It took Shira Mushkin, a photographer and graduate student at the Department of the Arts, much of her adult life to find the right topic for her very first exhibition. But when her father Mordecai Max Goldstein passed away three years ago, she suddenly knew. Her debut exhibition “Daddy’s Little Girl,” became an act of remembrance and love.

Despite the topic, the show is far from “sad.” On the contrary, it radiates joy. The exhibition, displayed at a local art gallery in Meitar, highlights her father’s diverse passions, including chazzanut, art and gardening. In a small room adjoining the gallery, a laptop computer continuously plays a tape of Cantor Goldstein singing “Kol Nidrei” and another, singing a Broadway tune – reflecting his love for both Jewish prayers and contemporary music.

Running between the large photos of childhood memories (a freshly baked challah, the glass rotunda of the Guggenheim Museum where her father would take her on weekends) is a series of smaller photos, reminiscent of a cinematic stream of consciousness. Every few photos is a “shocker,” a photo that relates to the

pain of loss – a photo of her father as he lay in his hospital bed.

“Pain is a part of life, I recognize that,” Mushkin, a student of the new curatorship track, explains. “But I wanted to show there is a way to deal with it while still concentrating on the joyous aspects of life and reflecting my father’s kindness, generosity and vibrant personality.” In between the photos, various objects are carefully placed, displaying his love of life: his colorful tie collection, some batter-splattered handwritten recipes, an array of nine kippot – with one missing from the minyan to symbolize her father’s absence.

A New Jersey native who made Aliyah on her own at 19, Mushkin now lives in Meitar with her husband and three children. She calls her work joyful, remembering. “Sadly, Israelis are very good at commemorating,” she says. “Our society puts a strong emphasis on loss and we are constantly flooded with ceremonies and memories of our loved ones. But I didn’t want my work to ‘mourn.’ My memories of my father are all wonderful, and I wanted to embrace him, and at the same time, to show people how

you can focus on the happiness your loved ones brought you and the legacy they leave behind, instead of just on the sorrow that was caused by their passing.”

Mushkin credits the University for nurturing her creativity and enabling her to finally have her own show, thus realizing a lifelong dream. Her mentor, Prof. Haim Maor, “was so much more than a technical advisor,” she says. “He took me under his wing and really supported me emotionally. He gave me a lot of ideas on composition, and he was very open to my own ideas and encouraged me to bring them to life.

“Our lecturers don’t just teach by the book,” enthuses Mushkin. “They’re flexible and open-minded; they take the time to get to know us as individuals and urge us to become independent thinkers and artists.”

Receive BGU & YOU Online

To subscribe, send an e-mail to newsdesk@bgu.ac.il and it will arrive directly into your inbox.

Produced by the Department of Publications and Media Relations
Editor: Faye Bittker
Text: Patricia Golan, Orli Gold-Haklay, Allison Kaplan Sommer, Ehud Zion Waldoks, Jacqueline Watson-Alloun
Translation: Jacqueline Watson-Alloun
Photos: Dani Machlis, Wolfgang Motzafi-Haller

Design: www.image2u.co.il

Further details of the research projects described here may be obtained from: newsdesk@bgu.ac.il, Tel: 972-8-646-1753

Join us on Facebook
<http://tinyurl.com/BGUonFB>

Follow us on Twitter
<http://twitter.com/BenGurionU>

Ben-Gurion University of the Negev
P.O.Box 653, Beer-Sheva 84105, Israel
www.bgu.ac.il, Vol.1 No.1