BIU Grad Dawn Bachar
On the Fast Track to Military Intelligence
A spectacular performance by a renowned sand artist – accompanied by rousing music and an enlightening explanation of nano writing techniques by a staff member of the Bar-Ilan Institute for Nanotechnology and Advanced Materials (BINA) – was one of the highlights at BIU’s National Science Day events. Drawing 1,000 Jewish and Arab youth from all over Israel, the Science Day celebrations also featured DNA-model building, scientific code cracking, scientific demos and TED-style lectures on engineering, physics, chemistry, biology, and designing smart cities. This year’s events – held at the Leslie and Susan Gonda (Goldschmied) Nanotechnology Triplex – focused on the innovative technologies being developed in BINA’s labs.
Strategizing for Transformational Change

Bar-Ilan University’s newly-inaugurated president, Prof. Arie Zaban, is an avid proponent of challenge-driven research that can create meaningful change and impact upon key areas of our lives. He seeks to improve the university’s international ranking, make academic education more relevant to the times, and transform the BIU campus into a vital social, intellectual and cultural hub.

Bar-Ilan today ranks among the world’s top 500 universities and in some areas of academic performance numbers among the leading 400. The new BIU President, Prof. Arie Zaban, is now setting an even more ambitious goal: to become one of the 250 best universities among the world’s top 500.

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The pursuit of excellence and academic achievement is only part of Prof. Zaban’s vision for the future of the university. Of prime importance is Bar-Ilan’s capacity, as an academic institution, to make a significant impact on our lives. This he hopes to accomplish through the Impact Centers — which he initiated and launched in his previous position as Vice President for Research.

The Impact Centers present an innovative approach to academic inquiry at Bar-Ilan, called “challenge-driven research.” Zaban explains that “the emphasis in these centers is on the universal challenge that needs to be confronted in general and the specific application of that challenge here in Israel.” In a global society, many of the same challenges are broad and far-reaching in most nations of the world, although the manifestation might be specific to the individual country and culture. These BIU Impact Centers bring together researchers and students from different academic disciplines to solve these complex problems, and will contribute significantly to generating major change in our world. “The impact may be social, economic, political, technological, medical and even cultural.”

Bar-Ilan University currently has 11 Impact Centers, including, for example, the Network Science Impact Center, which addresses the need to prevent the rapid and random collapse of complex networks such as those supporting the Internet, traffic lights, rail and air travel. “We all remember the great power outage in the US, the collapse of the railroad network in Italy and the outbreak of the Ebola epidemic which was spread by infected airline passengers. The dilemmas — how to avert the shutdown of complex networks and how to safeguard them from hacking — are challenges that these researchers confront.”

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Using Smell to Shoo Disease-Carrying Mosquitoes Away

Every year millions of people die from mosquito-transmitted diseases. Last year the Zika virus, which can spread from a pregnant woman to her fetus resulting in microcephaly and other birth defects, raised fears among those travelling to Latin America and the Caribbean. In addition to killing people, certain mosquitoes and pests cause immeasurable damage to agriculture and farming to the extent of endangering the global food supply. However, conventional pesticides can be detrimental to our health and to the environment.

Dr. Rafi Haddad of the Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center intends to revolutionize this field through groundbreaking research done in his Neural Circuits, Neural Computations and Olfaction Lab. The research employs novel techniques to detect the way in which the olfactory system signals the mosquito brain to approach or withdraw from certain odors.

“The sense of smell for animals is as acute as that of vision in humans,” explains Haddad. “It provides animals with an important layer of information about nature. In our lab we explore how animals, and especially mosquitoes, find their food. We are studying their navigation mechanism which is based on their sense of smell. A more thorough understanding of this neural circuit in mosquitoes will enable us to develop new techniques to keep them and other pests away from people and crops, or lure them to traps, without using poisonous pesticides.”

Improving Treatment for Diabetics

At BIU’s Azrieli Faculty of Medicine in the Galilee, Dr. Ron Piran is working on a new treatment method that could improve the condition and quality of life of diabetic patients. “Diabetes is a condition where the body does not produce enough insulin because of beta-cell destruction,” explains Piran. “Since insulin is the substance that allows glucose entry into the cells, they are deprived of food and energy. A side effect is an increase in blood sugar levels. In extreme cases, this may cause gangrene of certain organs, arteriosclerosis, renal failure, strokes and more.”

In his lab Piran revitalizes the beta-cells that create insulin in the pancreas by using the compound Caerulein, which is based on a toxin found in the Australian tree frog. Caerulein transforms the alpha-cells, also found in the pancreas, into insulin-producing beta-cells. The efficacy of this drug which Piran discovered has already been proven but there are negative side effects. “What we are working on is improving the treatment and reducing the severe side effects of the toxin.”

“This specific portion of diabetes research is very significant,” explains Dr. Piran, “because if we are able to regenerate beta-cells, patients could be completely healed of the disease.” The implications of this research could mean that one day the world may be diabetes free.
Improving Our World

Empathy and the Jewish-Arab Conflict

How does the Jewish-Arab conflict influence empathy among Jewish and Arab teens? Research by Prof. Ruth Feldman, of the Susan and Leslie Gonda (Goldschmied) Multidisciplinary Brain Research Center, establishes that despite initial feelings of compassion, ultimately national identity trumps empathy, but there still may be hope.

In addition to the feeling of empathy, the brain possesses another mechanism – one that identifies potential danger and hostility. According to the study, when a person of one nationality is exposed to the suffering of the other nationality, their empathy mechanism is initially set off, but within half a second it becomes selective and feelings of hostility take its place.

According to Prof. Feldman, over time, the empathy mechanism has played a hierarchy of empathy. The good news is that since this is a mechanism influenced by external messages, Prof. Feldman and her team believe that positive dialogue and collaboration have the potential to lead to favorable change.

Feldman’s research team studied the level of empathy and extent of hostility to the suffering of others. Groups of Jewish and Arab teens aged 16-18 underwent brain scans while watching images of pain inflicted on one or the other group. By using the Gonda Center’s MEG (Magneto Encephalograph – the only such instrument in Israel) to map real time brain activity, the scientists were able to assess the locations, strength and length of brain functions in a resolution of a millisecond.

The scans revealed significant differences in the teens’ cognitive reactions between the pain experienced within their group to that endured by the other. The scientists further examined the significance of these differences in brain function, and whether they were predictive of the subject’s feelings and views of the other. They brought the two groups together, and further studied their behavior using social interaction coding software developed by Prof. Feldman. This software, analyzing body language and other extreme behavioral expressions, revealed that the lower the hostility level, the higher the empathy level as it relates to the pain of the other, and vice versa: the higher the level of hostility, the lower the empathy level.

The study demonstrated that the basic empathy mechanisms are affected by external factors and prejudice creating a hierarchy of empathy. The good news stemming from the study, however, is that since this is a mechanism influenced by external messages, Prof. Feldman and her team believe that positive dialogue and collaboration have the potential to lead to favorable change.

When a person of one nationality is exposed to the suffering of the other nationality, their empathy mechanism is initially set off, but within half a second it becomes selective and feelings of hostility take its place. However since this is a mechanism influenced by external messages, positive dialogue and collaboration may have the potential to lead to favorable change.

Using Martial Arts to Improve Social Behavior

How do the martial arts improve cognitive skills and behavior, and even reduce violence and aggressiveness among youth? That’s the subject of an intriguing neuropsychological study conducted in the sports lab of Prof. Yuri Rassovsky, Head of the Clinical Rehabilitation Division in Bar-Ilan University’s Department of Psychology.

“Neuropsychology focuses on understanding the brain-behavior connection and aims to use this understanding to help people,” he explains. “In order to explore the impact of martial arts on mental, emotional and physical wellbeing, the sports lab enlists students who are athletes and certified fitness instructors to explore a broad spectrum of topics related to this phenomenon.”

The BIU lab’s flagship research project is directly related to Rassovsky’s personal experience in the martial arts, and his vision of incorporating this sport in school curricula. In addition to the anticipated health benefits provided by any type of sport, “martial arts also instill mutual respect, self-control and restraint.”

The study Rassovsky is conducting takes place in a school for at-risk youth in Modin where doctoral candidate Anna Harwood examines how martial arts intervention improves cognitive and emotional processes. Two trained instructors teach 40 sophomores and juniors Dennis Survival – a method incorporating elements of karate, judo and jujitsu.

“We organize the participants into two groups – a control group which does not partake in sports classes and a research group which does. We measure and compare their respective cortisol and oxytocin hormone levels while they are active,” explains Rassovsky. “Cortisol is related to stress and violence, and oxytocin, the communication hormone, affects social abilities. Although still ongoing, it is anticipated that we will see a rise in oxytocin levels in the research group, as opposed to those in the control group. As such, we also expect to witness an improvement in their interpersonal behavior.”

This innovative program is being conducted under the supervision of the Israeli Ministry of Education. “We have witnessed a decline in impulsivity and an increase in self-control,” reports Rassovsky, a black belt in jujitsu. “People who train in traditional martial arts are usually less violent than others. We hope that this research will help us lobby for the implementation of martial arts in the general curriculum, thus allowing teenagers to benefit from its health and educational values.

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Erdoğan’s Turkey

For years, Turkey has been a key player in the Middle East, taking a lead role in the conflict between two superpowers while also positioning itself in the European arena. How will recent changes in Turkey impact on its future and what are the implications for the Middle East?

When European leaders criticize the repression of freedom of expression and human rights violations that his regime inflicts, Erdoğan replies that he faces much more serious threats than do the Europeans.

“Surprisingly,” says Dr. Aviv, “the middle ranks of the military were responsible for the last attempted coup, while earlier uprisings in Turkey were led by those of the highest ranks. Erdoğan blames the uprising attempt on Fethullah Gülen, the exiled religious leader in the United States. He argues that Gülen’s people have deeply permeated all spheres of influence in Turkey – the military, academia, the media, the legal system, and government offices. This argument is at the base of the sweeping cleanse with which he is carrying out in those areas today.”

Dr. Aviv says that there is a grain of truth in Erdoğan’s claim, but that it is an exaggeration to say that Gülen’s people control or influence the government. Gülen and Erdoğan collaborated in the past. When the Islamic party of “Justice and Development” (AKP) came to power under the leadership of Erdoğan in 2002, Gülen – who was already in the United States – was considered a spiritual mentor of the party, even if not formally.

A rift broke out between the two which became public in 2013, apparently as a result of media reports regarding the corruption of Erdoğan and his son. The source of the reports, as it seems, was Gülen, in response to the closing of the academies held by his movement. As a result of this and other events, Gülen has suffered greatly in recent years, Turkey has made to undermine his rule, so the uprisings against the uprising in July 2016. She says it happened because Turkey today is a more civil and less militaristic state, and therefore less tolerant of military interference in politics.

“When European leaders criticize the repression of freedom of expression and human rights violations that his regime inflicts, Erdoğan replies that he faces much more serious threats than do the Europeans.”

During Erdoğan’s rule, Turkey has enjoyed economic growth. In 2002, the GDP was around $3,000 per capita and today it is over $10,000. During these years there was also a decrease in unemployment and inflation. These impressive economic achievements in recent years have definitely had a positive effect on public wellbeing, and now it seems that most people, left and right, religious and secular, support his regime.

Alongside domestic policy achievements, Erdoğan also tried to lead a political revolution accompanied by statements regarding the centrality and importance of Turkey in the Arab world. “Erdoğan aspired to make the Turkish democracy a model that would catapult the region forward, in contrast to the Turkey of Atatürk (founder of modern Turkey), which was traditionally reluctant to excessively intervene in the Middle East and tended to divorce itself from the Arab world. Erdoğan changed this approach from the ground up,” explains Prof. Nachmani.

“Atatürk viewed the Arab nations as being ignorant and pulling Turkey back in time, causing economic, industrial, and cultural backwardness in relation to Europe. His approach idealized disengagement from the Arab nations and Islam, and believed in a secular, westernized Turkey. And in comes Erdoğan in the early 2000s and launches new policy that embraces the Middle East and Islam, a change of 180 degrees.

“At the end of 15 years of rule, those ambitions suffered humiliating defeat,” argues Prof. Nachmani who notes that Erdoğan’s policies led Turkey to conflicts with Egypt, Syria, Israel, Lebanon, and reignited an ancient dispute with Greece and Cyprus. The climax was the shooting down of a Russian fighter jet that entered Turkish airspace, which worsened the crisis with Russia in November 2015. “As a result, Erdoğan decided to change course and act to repair relations with neighboring countries. Prime Minister Ahmet Davutoğlu sought reconciliation with Russian President Vladimir Putin, reconciliation that had significance for...
commerce and tourism. The warming of relations with Israel is also a result of Turkey's change in direction. Efforts were made to repair the relationship with Egypt as well, but the rift in this case is deeper, because in the eyes of the Egyptian president, Abdel Fattah al-Sisi, Erdogan shares the same view as the Muslim Brotherhood who threatens his rule.”

The Turk Has No Friend but Himself

According to Prof. Nachmani, Turkey’s relationship with ISIS is very complex. “This is a Sunni organization which sprouted from the Shiites oppression of Sunnis in Iraq. Erdogan, a Sunni, helped ISIS by allowing the passage of volunteers from Turkey to Syria and even traded oil with the organization. However, the regional turmoil which ISIS caused and the disintegration of Iraq and Syria, led to the strengthening of nationalistic sentiments among ethnic minorities and particularly among the Kurds in northern Iraq and northern Syria. All of this has touched a raw nerve in Turkey, which is very fearful of the implications on its ethnic minorities, and especially the Kurdish demands for territorial contiguity.”

Prof. Nachmani adds that the strong criticism voiced by Europe and the US regarding such lenient treatment towards ISIS, led Erdogan to join the coalition against the Islamic State, a decision that made Turkey the target for ISIS terror attacks and drew criticism from Erdogan’s opposition. Many Turkish citizens do not understand why it was necessary to make ISIS an enemy.

Still, the attack on the Kurds along the border and the distancing between them and the minority of Turkish Kurds is more of a priority for Turkey than the attack on ISIS. Turkey’s military ground operations in August 2016 proved just that, and even earlier, when Turkey reported bombing ISIS camps, for the most part these were the Kurdish forces acting.

This situation also reflects the drastic decrease of US involvement in the region, which has led to attacks on Kurdish militias who cooperate with the Americans. Notes Prof. Nachmani: “The decline in the US standing in the Middle East is the most significant development occurring in the region since the Yom Kippur War. It’s not mentioned often that it is indeed a process of ‘deliberate withdrawal,’ but it is happening and there are already those who are jumping at the opportunity, especially Russian President Vladimir Putin, who acts as he pleases in the area, and Erdogan, who is not afraid to hurt American interests as it serves him.”

According to Dr. Aviv, Turkey’s foreign policy is reflected in the saying, “The Turk has no friend but the Turk himself.” Despite the Islamic tendencies of the AKP, Turkey does not identify ideologically with a particular side. Turkey sees everything through its narrow interests. It has agreements with European countries, but also has understandings with countries hostile towards the West.

Prof. Nachmani also points out the Turkish duality and adds that this is at the root of the states’ unique character: “The Turks have been negotiating to join the European Union for over 40 years, or over 28 years, depending on when one started counting. All this effort although it is clear to all that Turkey has no chance of becoming a member of the EU. To be accepted Turkey would have to change a large number of laws, and constitutional change like this can’t occur during Erdogan’s reign. While it is incorrect to call the regime a dictatorship, since officially there is still a parliament and an opposition, de facto it is a particularly authoritarian government.”

Another issue which distances Turkey from the EU is the freezing of the refugee agreement, which would net Turkey six billion dollars in return for its agreement to resettle refugees who pass through its borders on their way to EU countries. “The reason for this,” says Prof. Nachmani “is the section in the agreement which is supposed to ensure Turkish citizens can go to EU countries without a visa.”

Prof. Nachmani: During Erdogan’s rule Turkey has enjoyed economic growth. During these years there was also a decrease in unemployment and inflation. Now it seems that most people, left and right, religious and secular, support his regime. During Erdogan’s reign, a Sunni, Erdogan, who is frozen and Erdogan threatens to flood the continent with refugees.”

The Microbiome and Weight Gain

“At that time, other studies were being published about the correlation between microbiome and weight gain, researchers examined mice raised in a sterile environment whose digestive systems were implanted with the feces of obese and lean mice. The transplanted mice, all with the same genetic makeup, gained or
lost weight, respectively. “Implanting feces is currently the latest trend in western medicine, and has even been FDA approved for Clostridium difficile infection,” smiles Koren. “In China it has been recognized since the fourth century. It’s also been used by European veterinarians for hundreds of years. The idea is to bring about physiological processes by changing the composition of the body’s bacterial population.”

Koren’s post doctoral thesis focused on “healthy” weight gain, typical to pregnant women, as opposed to “unhealthy” weight gain, i.e., obesity. He discovered that the gut microbiome behaves in a similar way in each of these situations.

Today Koren is working on a follow-up study with Beilinson Hospital that can potentially assist in early detection and prevention of pregnancy-related complications such as gestational diabetes and pre-eclampsia. Koren says that in the future we might be able to predict a predisposition to such complications as early as the first trimester.

Koren’s study focuses on bodily fluids. This aspect of human existence is sometimes perceived as embarrassing and filthy. Koren is actually surprised by that, although he understands why: “I personally don’t feel that way. On the contrary, I study something that’s at the forefront of scientific research, and I feel the entire scientific community is eagerly awaiting our next discovery. Up until a few years ago this was a completely orphaned field, investigated by literally no one, and today it’s one of the hottest topics around. The public’s aversion to provide samples of bodily fluids is something we are familiar with. Indeed, people who had no problem with us drawing blood found it very difficult to participate in a study that requires sampling their excrement. This phenomena often slows down our progress.”

The Microbiome – A World of Endless Wonders

For Dr. Koren, the microbiome is a world of endless wonders. “Microbes affect not only the body but the soul. For instance, depression is usually accompanied by an inflammatory reaction which may very well be controlled by bacteria. In studies on fruit flies we discovered that a simple round of antibiotics eliminates bacteria, and alters behaviors. Naturally, in humans everything is more complicated,” notes Koren. “Fruit flies only have a few types of bacteria, whereas in humans there are thousands. We know that bacteria are involved in hormone production, but this research is still in its very early stages. The possibilities are endless: imagine that we find a microbe that produces serotonin, and can replicate it within the body rather than having to use anti-depressants.”

Dr. Koren is also collaborating with Uri Mayer-Chissick, a food historian. Together they pickle, leaven and ferment foods, recreating ancient recipes from Roman times and learning how to utilize the properties of the probiotic bacteria which are formed. Koren suggests a tried and proven recipe for pickled lemons:

“Take 7-8 fresh lemons, wash and cut into quarters. Use 7 fresh peeled garlic cloves, one peeled onion cut in four, a pinch of turmeric and ground cumin. Put everything in a sterilized jar and fill with salt water (one teaspoon of coarse sea salt per cup of water) until the lemons are completely immersed in the fluid. Cover, shake, and leave in the sun for three months.”

“I feel the entire scientific community is eagerly awaiting our next discovery. Up until a few years ago the study of microbiota was a completely orphaned field, investigated by literally no one, and today it’s one of the hottest scientific topics around.”
Leadership and determination in the face of intimidation and bullying are necessary in these struggles. Not every battle can be won, but when victories are achieved, they serve as a deterrent against those who might otherwise embrace BDS, and help to demoralize the other side.

In the United States, many states have passed legislation prohibiting boycotts of Israel, and Congress included an anti-BDS clause in important trade legislation, instructing negotiators to give high priority to this issue in talks with the European Union. In January 2017, US Senators presented a bipartisan bill which would encourage states and local authorities to initiate steps against the BDS movement. The law would provide protection for state and local governments that decide to ban work and investment with companies that target Israel for boycott, divestment, or sanctions. In a similar spirit, the Canadian House of Commons voted in favor of a strong resolution calling on the government to denounce and condemn the BDS movement.

...
Advocating for Israel

As an Israel advocate dynamo from Atlanta, Ashley Garrett articulately confronts anti-Israel rhetoric and BDS by lobbying in favor of pro-Israel bills, and working to empower students in order to strengthen the pro-Israel community on campus. During her senior year of BA studies in International Affairs at the University of Georgia (UGA), she served as campus president of Christians United for Israel (CUFI) – the largest pro-Israel organization in the US. Through her involvement in CUFI she helped organize a benefit race at UGA for Save a Child’s Heart (SACH), an Israeli-based organization that provides urgent pediatric heart surgery for indigent children from developing countries.

After graduation, Ashley became a campus coordinator for another Israel advocacy organization, the David Project, and accompanied 240 student leaders (mostly non-Jews) to see Israel.

Recently in Israel for her fourth time, Ashley just completed a one-year program at BIU, maximizing every minute. After finishing Magen David Adom’s first responder course, she was excited to volunteer on the ambulances.

“Israel is a beacon of hope, people have a right to exist and they really want to live in peace. Where else do they have hospitals with facilities underground in case they get bombed? They even help those who might bomb them,” says Ashley, who visited Israel during Operation Protective Edge in 2014. “That’s when I decided to become a doctor.”

What’s effective for fighting the BDS in the US? “Building relationships with organizations, such as the college democrats and republicans on campuses so there’s bipartisan support; also teaming up with minority students, faith-based groups, and fraternities and sororities; and creating allies with the Student Government Association to stop BDS at that level.” Ashley stresses that “it’s very important to reach students because they are going to be tomorrow’s leaders.” She relays that on college campuses, 10% tend to be very pro-Israel, 10% anti-Israel, and 80% unaligned.

“Students for Justice in Palestine (SJP) are very active on campus. They hosted an ‘apartheid week’ and at the same time we hosted a ‘peace week.’ It was a good opportunity for people to learn about Israel.” She contends that “Students for Palestinians” skew facts and pictures, and many students are affected more by emotions than by facts.” When they held BDS 101, Ashley walked in, and later posed some tough questions about Palestinian and Hamas civil rights violations.

Recipient of her local Hillel’s Israel Advocacy Award, Ashley maintains that “we have to find common ground and make Israel relevant for students. Israel is about family. Israel is the only democracy in the Middle East. We need to acquaint them with Israel’s humanitarian work and make it fun by arranging coffee dates, a shakshuka night, interfaith dialogues, and other events. The point is to get others excited about Israel, especially when they see the country for themselves.”

Using accurate semantics is important, she notes. For example, referring to the security fence and not the wall or barrier, and bringing stats to show how it has brought down the number of terror attacks.

After returning to the US this past summer, Ashley has been working to intensify her Israel advocacy efforts among diplomats and others, before starting medical school. With her eloquence, experience, and devotion to the cause, she will undoubtedly create waves. Hers is a voice that cannot be ignored.

Ancient Health Remedies

Modern medicine relies on ancient sources as well as traditional health remedies. However as time goes by, these health remedies are slowly disappearing, and along with them – a grand tradition of healing and a nurturing way of life. Prof. Zohar Amar of the Martin (Szusz) Department of Land of Israel Studies and Archaeology has been amassing and examining these ancient remedies for two decades, thus preserving this extensive knowledge for generations to come.
Almost all plants have some sort of medicinal quality. Even “bad” plants have healing properties. One such plant is the Small Nettle (Urtica urens). After cooking it, it no longer stings and its juice can be used to help cure urinary tract infections and kidney stones.

Almost all plants have some sort of medicinal quality,” says Prof. Amar. “Even ‘bad’ plants have healing properties. One such plant is the Small Nettle (Urtica urens). After cooking it, it no longer stings and its juice can be used to help cure urinary tract infections and kidney stones.

Originally, the plants were harvested and processed by hand, which was laborious and time-consuming. However, the Bar-Ilan University team has developed a method for mass-producing the extract, making it available to a wider audience.

The study spanned several years, and included a trip to Ethiopia and numerous interviews with Ethiopian elders in Israel. During the study, Amar collected hundreds of samples, mostly plant-based and some animal-based.

“In the modern world, traditional remedies are often seen as less effective than modern medicine,” says Amar. “But our research has shown that these remedies can be just as effective, if not more so.”

The “mummy” medicine was known among other communities in the Persian Gulf and in Russia. They would produce it from local minerals. This treatment has been rejuvenated in the modern age and today is sold in the form of extracts and capsules. One day, my eyes caught sight of a jar marked ‘Trangenbin.’ This name was familiar to me from the writings of Maimonides and Ibn Ezra, and moreover, there’s a Karate tradition that links this name to the story of the manna that the Children of Israel ate in the desert.

“Egyptian pyramid robbers sold mummy parts soaked in these good remedies. This form of commerce crossed borders into Europe, and questions arose in Jewish Halakhic literature: Are we allowed to derive benefit from the dead? Are we allowed to use mummies? And so we learn that our people were no strangers to this trade and these products. There are many remedies. This form of commerce was partly made of organic substances saturated in various remedies.

“The mummy medicine was known among other communities in the Persian Gulf and in Russia. They would also produce it from local minerals. This treatment has been rejuvenated in the modern age and today is sold in the form of extracts and capsules.”

The extensive collection includes folk medical tools and devices found throughout Israel. Unlike the many similarities in ethnic remedies, a certain honey called “tazme” is unique to Ethiopian culture. This honey is produced by a type of bee that does not exist in Israel. Their hives are built underground, and locals expend much effort using sticks to extract the honey. This honey is used to treat throat and respiratory infections mostly during the winter season.

Ethiopians who immigrated to Israel in recent years are quickly adopting a modern lifestyle. Prof. Amar says that “other ethnicities took 30 to 50 years to acclimate and forget their old way of life, but among Ethiopians this is happening much faster. Working on this book provided an opportunity for me to meet with traditional folk healers, whose generation is gradually disappearing, and to preserve their legacy for generations to come.”
The French Ascent to Israel

Some go to synagogue on the Sabbath and then bathe in the sea, wear a yarmulke and dress très chic. They are educated, affluent, and prefer to send their children to French-speaking schools in Israel. Unlike the North African immigrants from the 1950s, the French olim are considered to be a well-established community, providing a great opportunity for the Israeli economy to thrive. This is the French aliyah of the last decade.

Mass immigration from France began in the 1970s, following the Six-Day War. Since then, an estimated 120,000 olim have come to Israel from France. From the mid-2000s there has been an increase in their aliyah rate which peaked in 2014-2016 when 20,000 French immigrants arrived. "Generally speaking this is an aliyah rate which peaked in 2014-2016 when 20,000 French immigrants arrived. "Generally speaking this is an aliyah rate which peaked in 2014-2016 when 20,000 French immigrants arrived. "Generally speaking this is an aliyah rate which peaked in 2014-2016 when 20,000 French immigrants arrived." said Dr. Yitzhak Dahan, former executive member of the World Zionist Organization and current postdoctoral fellow at BIU’s Department of Sociology and Anthropology.

France’s Jewish community – second in size only to that of the US – currently comprises nearly a half a million Jews. Dr. Dahan divides the community into three categories – about one third is observant, active in the community and has a strong connection to Israel. Another third are what he refers to as "Yom Kippur Jews," who don’t wear yarmulkes and don’t necessarily observe Jewish law, but do occasionally take part in community events and have a certain connection to Israel. The last third is comprised of secular Jews who are far removed from community life, and tend to assimilate.

Those who immigrate, says Dahan, are members of one of the first two categories, and usually are traditional or religious. About 15% of these are even considered Ultra-Orthodox (Haredi), although French Haredi Jews are a new breed, resulting from the return to Jewish roots, common among French Jews in the new millennium. Dahan elucidates: "The French exhibit a new model of traditional-religious society, which doesn't shun the secular world and even incorporates elements into their lives. Some French olim are redefining norms and breaking stigmas – they go to synagogue on Shabbat, and from there head to the beach. They wear a yarmulke and dress très chic. The French traditionalists want to be accepted for who they are, and are outraged when the local religious schools suspend their children for going to coed beaches. The French community seeks to legitimize their new form of traditionalism, similar to the American community which sought to legitimize liberal streams."

Since the 1990s the French aliyah has been fueled by Zionism and ideology, with immigrants seeking to live in a Jewish environment and provide their children with a Jewish education. This is coupled with increasing security threats and terror attacks, due to the rise of Islam and proliferation of anti-Semitism across Europe.

But like every aliyah, this one also has its challenges. Despite ideological and religious motivations, there is still a language barrier, the difficulties in finding employment and in helping the children acclimate to the Israeli school system. About 13% of French olim fail to meet the absorption challenges and return to France. Although Dr. Dahan notes that most of the returnees are people who left hastily following a terror attack, without planning their move carefully beforehand.

The Francophone Bubble

French olim tend to live in their own "Francophone bubble" in Israel. In recent years they have established their own magazines, websites and newspapers in French. Education is another realm in which many of them separate themselves from Israeli society. Some have opened French-speaking kindergartens for their children, and some high schools allow French students to matriculate in their mother tongue. Some, usually the Ultra-Orthodox olim, have gone so far as to establish French-speaking elementary schools. Dahan notes that this sect views the French language as the way Ashkenazi Haredim view Yiddish – as a wall separating their children from secular Israeli society. Dahan adds that there is a concern that these children, who grow up in this insular society, will be hard-pressed to earn a living, despite growing up in wealthy, well-educated homes.

Employment challenges, Dahan says, created the "Boeing Aliyah", where the main provider (usually the husband), flies on Sunday to work in France and returns to Israel on the weekends. “It’s problematic,” says Dahan. “It’s like being on the fence. It’s unhealthy for family life.”

Dahan feels that this sort of seclusion will not last. The second and third generations will leave the educational, cultural and professional enclaves. Unlike the first generation of immigrants...
**Dr. Vitzhak Dahan:** The French exhibit a new model of traditional-religious identity which doesn’t shun the secular world and even incorporates elements into their lives. Some French olim are redefining norms and breaking stigmas.

from the former USSR, who tended to live amongst their own out of a sense of superiority, the French segregation is motivated by religious and communal reasons. “It’s interesting to see how these olim, who initially emigrated from the former USSR, who tended to invest all its efforts in promoting these traditions to North African Israelis who came here in the 1950s.”

**Contribution to the Economy**

“In the coming decade, there is a potential aliyah of 100,000 Jews from France,” predicts Prof. Elise Brezis, of BIU’s Department of Economics, and Director of the Aharon Meir Center for Banking and Economic Policy, (and herself French-born). In her essay “The Effects of French aliyah on the Israeli Economy”, she notes that about one half of French aliyah in 2014/15 had an academic profession, as opposed to 25% of Israelis, and as to years of study, their average is slightly higher than that of the typical Israeli. Her data also shows that the rate of unemployment among these olim is very low, and their potential to become dependent on welfare is lower than the national average. “As such this is a golden opportunity for the Israeli economy to gain a valuable workforce which was trained by another country (France).” concludes Brezis. “In addition, the French immigrant is a devoted worker, and wants to contribute to Israel,” she relays. “Therefore, it would be a shame for the State of Israel not to invest all its efforts in promoting this aliyah by providing incentives and helping with all the logistics and red tape.”

Prof. Elise Brezis: In the coming decade, there is a potential aliyah of 100,000 Jews from France. As such this is a golden opportunity for the Israeli economy to gain a valuable workforce which was trained by another country (France). In addition, the French immigrant is a devoted worker, and wants to contribute to Israel.

When Shira and Massimo Duhamel were finishing up their bachelor’s degree in Human Biology in Lyon, France, they heard about the possibility of completing their MD training at Bar-Ilan’s Azrieli Faculty of Medicine in the Galilee. “It was hard to believe that there was really a medical school in Safed,” relates Massimo, but within weeks, the young couple was preparing for the entrance exams and aliyah. Once in Israel, they enrolled in a Hebrew Ulpan, and in Fall 2016 commenced BIU’s three-year program in medicine at the Azrieli Faculty in the Galilee.

“I am pursuing my clinical work with lots of motivation,” enthuses Shira. Massimo notes that the school’s preliminary clinical foundations course has given them a “solid professional basis that will serve them well as they begin their hospital rounds.” The two, who worked as surgical assistants in French hospitals, are intent on becoming doctors and see the Galilee as their home. “From what we’ve experienced in Safed this year we are very pleased with the quality of life in the Galilee,” says Massimo, who plans to specialize in either radiology or psychiatry (“two different ways to see what’s inside”). Shira, who hopes to pursue a broad specialty such as internal medicine or anesthesia, relays: “I’m very connected to this amazing region, and I believe that we need to develop the north for the benefit of the local population. It’s very exciting to be part of this development and it seems that most of the hospital physicians in the area are delighted to have students, and invest in us as much as possible.” Shira believes that ultimately the ties that she establishes with hospital physicians will influence her choice of a future specialization. “When training with good doctors who have a humane and personal approach with patients and students, who encourage, guide and involve us – it changes everything. These extraordinary and inspirational encounters are fascinating.”

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Fifteen years ago, when Shira’s family attempted aliyah and spent several months on a kibbutz (before returning to France) she recalls visiting the local zoo every afternoon. “As a child I wanted to be a veterinarian because I loved to take care of animals. Later, I became very interested in the life sciences and physiology, and was enamored by the human body’s capabilities. From the age of 14, I knew I would study medicine and felt that I could flourish in this profession and help others. My family was very supportive.”

Raised in France by her Canadian father and Italian mother, Massimo admits to having other motivations initially. “At the end of high school I was concerned that if Shira chose to study medicine, and I learned something else, we wouldn’t see each other. It influenced my decision, although I always had thought to pursue engineering or medicine. My studies reinforced my desire to become a doctor and to treat people and, today I don’t see myself being anything else.”

When training with good doctors who have a humane and personal approach with patients and students, who encourage, guide and involve us – it changes everything. These extraordinary and inspirational encounters are fascinating.

Shira, an instructor of Krav Maga (a military self-defense system developed for the IDF and security forces) says that she takes opportunities as they come. “A year and a half ago, I couldn’t have imagined that I’d be both here at the BIU Azrieli Faculty of Medicine in Safed, and expecting a baby. This dual reality works perfectly in my overall life plan. I see myself as a doctor who aspires to help others, and as a warm, caring mother.” Shira and Massimo are sure that this special period of their lives will help build a strong foundation for family and career.
Choosing the Right Research Topic

Doctoral fellows are the spearheads of academic excellence. The dissertation defines the researcher’s academic interests, and sometimes sows the seeds for groundbreaking scientific discoveries. With this much at stake, how do PhD students choose a doctoral dissertation topic?

“Choosing a research topic is a crucial decision, especially for those planning an academic career,” says Prof. Miriam Faust, Bar-Ilan University Rector. “It’s an enormous investment of about five years, which is a considerable chunk of time in terms of academic productivity. During this period you often become the leading expert in your field. If you opt for experimental research, it’s usually a full-time job.”

Prof. Faust believes in the academic ideal of “Curiosity-Driven Research” – the scientist’s prerogative to study that which he finds interesting, regardless of application, finances, or any other factor. She feels that any solid research providing new knowledge advances society and by extension, humanity. “Additionally,” she says, “research motivated by interest and passion will always succeed and will always produce discoveries and valuable insights.”

“The Most Important Thing is to Not Stop Questioning”

This approach’s most notable champion was Albert Einstein. In an interview published in LIFE magazine under the title “Old Man’s Advice to Youth,” Einstein posited that – “curiosity has its own reason for existence. One cannot help but be in awe when one contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery each day.” And so it is that Einstein’s work was perceived at the time as holding no relevance to human existence. Today, we owe laser technology, space studies and the atom bomb to this “esoteric” research, and even 100 years later, there are still gems of potential knowledge enshrined in his body of work that we have yet to decipher. We learn from Einstein that “pure research” is not necessarily rooted in the here and now – but does it really work like that in real life?

“At the end of the day, it’s all about the people,” says Prof. Faust. “The doctoral candidate must find an advisor who believes in him and his topic, and who is an expert in the field. It’s an essential, absolute correlation. If your chosen topic is outside the scope of the experts’ interests, you might not be able to find a suitable advisor.”

Scientific inquiry requires doubting and keeping an open mind, and one of the conditions for that is making mistakes and missing your target. If your question is interesting and your methodology solid, you will produce valuable results, even if they are not those you had anticipated.

“Another imperative component is the zeitgeist, the trends of the time. Every so often new topics rise to the forefront of research. These trends enable the candidate to find an advisor, grants and other resources more easily. Academia is not entirely dissociated from the market forces.”

Scientific Research – A Highly Creative Vocation

Prof. Faust, whose research focuses on the psychological and neural processes involved in creative thinking, notes that scientific research is a highly creative vocation. This is especially true when writing the doctoral dissertation, which must include novel ideas or insights: “creativity is not solely about creating a new connection between never-before-correlated elements, or reorganizing existing data. It also requires gumption and risk-taking, even at the cost of finding yourself back at square one, empty-handed.”

“The wise man doesn’t give the right answers; he poses the right questions.’” If your question is interesting and your methodology solid, you will produce valuable results, even if they are not those you had anticipated.

Choosing a dissertation topic is a series of concentric circles, at the center of which is the student, with his hopes, aspirations, and skills. The next circle includes the student and his advisor. This personal and professional relationship is vital to the project’s success. The third circle adds the dissertation committee to be exceedingly open-minded, but eventually, they were convinced by my findings.”

The Importance of a Competitive Research Grant

The PhD track sometimes begins as early as the undergraduate studies, and is definitely set during the graduate studies phase. In many cases, the topic of a research paper will be extended to the doctoral dissertation, and the student will use the same advisor throughout his studies. The dissertation committee comprises the advisor and two examiners – one external and one from the university faculty. They are the ones who must be convinced of the validity of the hypothesis and methods, and of the likelihood of the work’s success.

At this point, the establishment and practical consideration take charge: “when it’s a trendy topic, it’s easier to receive research grants, scholarships and funds. Exact sciences research is very costly and we need to prove its necessity and potential. However humanities research, which does not require expensive lab equipment, also needs funding. A competitive research grant is one of the strongest validations that the topic is deserving and vital, and naturally, that contributes to the university in many ways,” says Prof. Faust.

Consequently, says the BIU Rector, “choosing a dissertation topic is a series of concentric circles, at the center of which is the student, with his hopes, aspirations, and skills. The next circle includes the student and his advisor. This personal and professional relationship is vital to the project’s success. The third circle adds the dissertation committee to be exceedingly open-minded, but eventually, they were convinced by my findings.”

Prof. Miriam Faust

“The best word to describe it is serendipity, a happy discovery made accidentally. For example, in my own doctoral dissertation, which studied language processing in both brain hemispheres, I realized mid-way that my original research hypotheses needed to change. This required the dissertation committee to be exceedingly open-minded, but eventually, they were convinced by my findings.”
The Prophecy Was Given to Them

Some arose from the social elite; others from the poorest strata of society. They included renowned leaders, as well as those perceived as underdogs. Some served as military strategists and others focused on correcting social injustices. They would console, grieve or rage according to the dictates of the biblical zeitgeist, and with the drop of the curtains they disappeared into the shadows of history.

The “classic” prophets were involved in daily life and reacted to the events of their time. Consequently, reading through their prophecies isn’t just a theological or poetic exercise, but contributes to the understanding of life in their time. From their words we can learn about key events, the mood and perceptions of that time.

These prophets didn’t predict exact events in the near future, and they did not bear the burden of leading the people, they did not engage in wondrous acts or in proving their power,” emphasizes Dr. Zimran. “Their prophecies mostly dealt with rebukes, divine punishment, or consolation, and were aimed at keeping the kingdom and nation on the correct path.

The “classic” prophets also focused on social issues and demanded of the king and nation on the correct path. They would console, grieve or rage, as underdogs. Some served as military strategists and others focused on correcting social injustices. They would console, grieve or rage according to the dictates of the biblical zeitgeist, and with the drop of the curtains they disappeared into the shadows of history.

Dr. Yisca Zimran

“Despite the large number of prophets found in every important juncture of the Bible, says Dr. Zimran, “When it comes to researching the phenomenon of prophecy, there is more hidden than revealed. We still don’t know how the prophets received these prophecies. How they conveyed them to the people. What is the ratio between what they said and what was preserved in their books? What is the significance of the prophecies that were not fulfilled and how the true prophets were distinguished from the false ones? What caused the change in the different work patterns of the prophets? Why did prophecy vanish in the mid-fifth century CE?”

These questions, says Zimran, are what is fascinating about the field. The different issues arising from the books of prophets, the interesting world revealed in these texts and the consequences of the debate on wider-scale biblical issues, preserve the relevance of these texts, and inspire our thoughts and curiosity even today.”
Spurring on Urban Revival in Lod

BIU alumnus Michael Manchik first came to the city of Lod as a student volunteer in a community outreach project. Today, he is working in the local youth center, encouraging Lod’s youngsters to pursue higher education and breathe new life into their hometown.

Michael Manchik’s leadership skills and charisma first came to fore when he was a combat soldier and commander in the Israeli Navy. He later developed an interest in social activism while preparing teens for army service in the framework of the Aharai! (Follow Me) organization.

Later, as a political studies and communication major at BIU, he served as the Student Union coordinator for social involvement responsible for community volunteer projects. That’s when the Rishon LeZion native became acquainted with the Ayalim Association – which promotes student settlements in the periphery – and decided to re-locate to Lod to advance social projects under the Municipality’s auspices.

For years, the city of Lod suffered from high crime rates, budgetary deficits, poor management, weak municipal infrastructures, neglected educational facilities, a paucity of employment opportunities, and a shrinking population. But recently, it has received a vital boost from Israel’s student unions, which are working to improve the city’s condition and image. Student villages have been constructed in the heart of Lod’s old run-down neighborhoods, and dozens of students from Bar-Ilan and other universities have moved in. The students benefit from subsidized rental fees, in return for volunteering in the community and initiating social projects.

After graduating, most students move out, but not Michael. He is one of the few who remained actively committed to improving quality of life in Lod.

The large events we organize are a major part of improving the city’s image. They bring hope to local residents and attract newcomers to the city. There are still many challenges, Michael notes. “The students’ activities constitute just one piece of a puzzle. We are facing a lengthy process, whose broad implications will only be evident years from now.”

In his current position, Michael oversees higher education and cultural activities in Lod’s youth center. One of his great professional challenges is to incorporate the local Arab community in his projects. “Many people were skeptical at first but the community and local institutions are embracing us and adopting these projects,” says the BIU grad who is working to spur on urban revival in Lod. “More and more young residents are joining in, and I hope students keep coming to Lod to advance our ventures.”

During his undergraduate degree studies at BIU, Michael served as deputy manager of Ayalim housing villages, organizing a Sukkot fair, the Purim parade which has now become a local tradition, and initiating a film festival. “Students living in the community come up with most of these ideas, and they also take charge of organizing and implementing the first stages of the plan. The city gradually takes these initiatives under its wings,” says Michael.

One of his most prized initiatives is the Lod Marathon. “We re-invented an old tradition. In the first reinstated Lod race in 2013 we had 1,500 runners. A year later, that number grew to more than 3,500. The third race, which was already under the city’s auspices, included thousands of runners. This project contributes to the sense of community in the city, and local pride. The large events we organize are a major part of improving the city’s image. They bring hope to local residents and attract newcomers to the city.” There are still many challenges, Michael notes. “The students’ activities constitute just one piece of a puzzle. We are facing a lengthy process, whose broad implications will only be evident years from now.”

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have helped reduce violence in Israel and abroad. However, with respect to verbal violence in school, the State of Israel may be a global leader. These are some of the conclusions of Prof. Rami Benbenishty’s groundbreaking studies that measure the extent and type of school violence in Israel, and undertake to grapple with this issue head on. This work, which has contributed to a marked decline in school violence, has won Benbenishty of BIU’s Lou and Gabi Northfield School of Social Work, the prestigious EMET prize for Art, Science and Culture, in the Social Sciences category.

The Many Faces of Violence
In the past, studies on school violence focused on such all-encompassing terms as “bullying,” “tormenting,” and “teasing,” whereas Benbenishty’s long-term monitoring studies, conducted over two decades, prove that violence can appear in many ways: “We distinguish between verbal and social violence, as well as physical violence. Israel is ranked among the leading countries in school verbal and social violence, which include the use of knives and firearms. The Bad News: Israel is ranked among the leading countries in school verbal and social violence which is expressed through insults, slights and swearing.

Continued Monitoring
Benbenishty, one of the first researchers to study school violence in Israel, notes that focusing on the topic is a relatively new trend. For many years, school violence was viewed as being inevitable for children maturing and testing their limits. A few extreme cases, mainly in the US, led to a shift in the education system’s perceptions and a conscious attempt to address the problem. Israel was no different. “The fact that until the new millennium there was only one (part-time) officer assigned thereof) in coping with violence, and the extent of violence in a given school is not determined solely by its surroundings. There are other contributing factors.

“Indeed, schools play an active role in creating an internal culture promoting or prohibiting violence within its walls,” he relates. “The manner in which teachers treat their students, give them attention, demonstrate concern and love, express their confidence in the students’ ability to succeed, and at the same time set clear and fair rules, directly affect the level of violence in the school.

In addition to positive emotional reinforcement, the school also needs to consistently uphold the rules and regulations and unequivocally maintain a clear non-violence policy across the board. The results of the violence-monitoring studies prove that the combination of these two aspects is the best way to create a violence-free school climate.”

Evaluating Scholastic Achievements and the School Climate
Benbenishty’s violence-monitoring method used by the Israeli Ministry of Education is conducted on the national, municipal and school levels, using “Meitzav” – a battery of tests reflecting scholastic achievement levels, as well as the social and pedagogic climates in Israeli schools. “As part of the follow-up research we introduced the concept that a secure school environment is vital for attaining academic excellence. So as part of the Meitzav–standardized tests results, every school today receives an evaluation of its social environment as well,” he explains.

Integrating evaluations of both academic achievements and the school environment is unique to Israel, and its success has prompted other countries to explore implementing the model. “We are currently in touch with the French government and the Ministry of Education in Chile, and working with institutions in India and Kosovo,” relay BIU’s Prof. Rami Benbenishty.
On the Fast Track to Military Intelligence

Completing both her BA and MA in record time, Dawn Bachar is headed for officer training and intriguing IDF service

Dawn Bachar, from Eilat, feels like a pioneer. “I’m the first in my family to study for an academic degree,” says the 20-year-old BIU fast-track student who has just completed both her BA (Communication and Political Studies) and MA (Military Intelligence, Political Studies) in a record three years! Enrolled in the Israel Defense Forces’ Atuda (Academic Reserve) program, Dawn will soon attend an officer training course prior to beginning six years of IDF service in Intelligence.

“The army gave me three years to finish my BA. But I also wanted to do BIU’s MA track which focuses on cyber, Islam, the Middle East, and homeland security,” says the 20-year-old Bachar, who added that it was a “warm and welcoming” experience.

Our lecturers required us to develop good arguments and debate – skills that will help us in life.” Describing the staff as “warm and welcoming,” she makes special mention of the supportive academic coordinator of her MA program, Dr. Ephraim Lapid, former IDF spokesperson and a leading authority on public and military affairs. “It was great knowing that there is such a nurturing environment here at BIU.”

In the future, she aspires to be an IDF spokeswoman like another BIU alumna, Miri Regev (now a Member of Knesset). She might also consider working in the Israeli Foreign Service, or as an emissary (shaliach) to a Diaspora Jewish community.

While she enjoys Eilat’s ubiquitous sunshine (and Vitamin D), she feels there’s much more opportunity and cultural happenings in the center of Israel. “Today most of my friends are from Bar-Ilan and I just love the cultivated and tranquil BIU campus grounds,” relays Dawn who resided in neighboring Givat Shmuel and “commuted” to the university on an electric bike.

Having just finished her intense BA-MA studies at BIU and awaiting her induction to IDF Intelligence, she notes that her father (a phone technician) and her mother (a secretary) are very proud of her achievements. “Thanks to their encouragement and support, I have succeeded.” As to her siblings, they look up to her as a model and pathblazer.

I wanted to specialize in a discipline that encourages me to explore and think out-of-the-box. Our lecturers required us to develop good arguments and debate – skills that will help us in life.

A PhD candidate in BIU’s Conflict Resolution, Management and Negotiation program, Nir Levitan is exploring a topic close to home

As an Israeli with Danish roots and a fascination with international negotiations, BIU Doctoral Fellow of Excellence Nir Levitan is exploring a topic that is close to home: Scandinavian-Mediation in the Middle East. Enrolled in Bar-Ilan’s Graduate Program in Conflict Resolution, Management and Negotiation (CRMN), he is interviewing the ambassadors of Norway, Sweden, Denmark and the EU (a Dane).

“Scandinavian politicians and statesmen see a lot of resemblance between Israel and Scandinavia in terms of values, goals, and issues affecting small states; he relays, adding that many of them (including the children of key negotiators), have spent a stint in Israel volunteering on a kibbutz.

“I like BIU’s diverse student population – religious and secular, right and left – a mosaic of Israeli society. There’s also a special connection with the IDF.

Nir is writing his PhD dissertation under the supervision of Dr. Amira Schiff (an authority on Norwegian involvement in peace processes), and Prof. Gerald Steinberg, CRMN program founder (and an expert in Mideast diplomacy and security). He has conducted archival research in Sweden and Denmark on the Oslo “peace process” that began in 1993 with secret talks between Israel and the PLO, and ended with the outbreak of the Second Intifada in 2002.

No stranger to Bar-Ilan, the former IDF combat medic earned both his BA (Political Studies and Government) and MA (International Relations and Affairs) on campus. His graduate thesis on US mediation in negotiations between Israel and Egypt following the 1973 Yom Kippur War was supervised by Political Studies Prof. Rami Gat (Dept. Chair) and Yehudit Ronen. “The role of the middleman is very critical in helping the two sides overcome their distrust of each other,” stresses Nir, who is intrigued by the “shuttle diplomacy” and realpolitik foreign policy approach of former US National Security Advisor and Secretary of State Henry Kissinger.

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Nir Levitan

Scandinavian-Israeli Connection

A PhD candidate in BIU’s Conflict Resolution, Management and Negotiation program, Nir Levitan is exploring a topic close to home
Synthesizing the Jewish and Democratic Character of the State of Israel

BIU’s new Center for Jewish and Democratic Law is setting the stage for integrating both value systems at the public, legislative, and judicial levels of Israeli society.

The messages of peace, tolerance, equality, and honor that we associate with the Free World all have a place in the great world religions. Yet, in the State of Israel today, one of the severest societal conflicts is playing itself out between proponents of Israel’s liberal-democratic character and advocates of the Jewish identity of the State.

For example, all Israeli citizens have the right of unobstructed movement. Strictly speaking, this means that anyone has the right to drive where and when he or she wants. Torah observant communities, however, close off roads passing through their neighborhoods on Shabbat. While there are legal restrictions concerning public transportation on the Sabbath and the public sale of leavened bread during Passover, Israel’s secular Jews flout these laws in many parts of the country. Despite the rhetoric appearing in the media, the great majority of Israel’s citizens are sympathetic to both ideals. They want a state that is both Jewish and democratic.

For me, the struggle between Judaism and democracy is not only a political-intellectual one. It is a necessity for people who want to live in both worlds.

For example, MKs Bezalel Smotrich (of the right-wing religious Zionist Jewish Home party), Tamar Zandberg (of the left-wing Meretz), and Rachel Azaria (of the centrist Kulanu) are political rivals representing vastly different agendas were sitting at the same table finding that there were many things they agreed upon. MK Zandberg sees Shabbat as the national day of leisure, as opposed to MK Smotrich’s religious day of rest. However, even

For me, the struggle between Judaism and democracy is not only a political-intellectual one. It is a necessity for people who want to live in both worlds.
Do the Center’s activities have any relevance for Diaspora Jewry? Prof. Lifshitz’s response: “The unfolding drama of Israel as a Jewish and democratic state is a reflection of the dilemma of Jewish identity in the Diaspora.” The conflicts between the needs and values of a Jewish community in the Diaspora and those of its host country cannot be ignored if they are to be overcome. The Center is designing tools for dialogue. An example is the guided textual study format. Imagine inviting local jurists or politicians to a morning study session reminiscent of the Beit Midrash. Two or three related texts from different points of view are presented, followed by a lively discussion of the similarities, differences, and implications. There is nothing like shared learning to bring us to mutual understanding and — ultimately — to agreement.

Zandberg said that, “Commerce can be ruled out because... a day of rest is an important social value.”

Supreme Court Judges, Scholars & Religious Leaders Convene at Conference
Public awareness is enhanced by high-profile events, such as last year’s inaugural International Conference on Jewish and Democratic Law, funded by US philanthropist Moshael J. Straus. Nine Supreme Court judges, seven international scholars, prominent Israeli scholars, rabbis from various streams, and Christian and Muslim leaders participated in the conference. In one panel discussion, on “Religion and the Human Rights Challenge,” Prof. Silvio Ferrari (University of Milan) argued that, practically speaking, governments can only reduce the infringement on freedom of religion by a case-by-case approach. National security might require the removal of a head-covering for identification purposes, which infringes on the rights of Muslim women to cover their face. Prof. Ferrari suggested that the government ought to discuss this with the religious group in question and agree on a minimal amount of exposure absolutely required for security. Prof. Yuksel Sezgin (Maxwell School, Syracuse University) argued that the only way to true freedom of religion is total separation of Church and State — that there should be no legislation or state opinion regarding religious practice at all.

Agent of Change
“We train 1,500 law students each year to think ‘Jewish and democratic,’” relays Lifshitz. “We offer courses that address the legal and practical implications of legislation based on shared democratic and Jewish values, and these students eventually become agents of change by bringing a fresh perspective into Israel’s legal and legislative system.”

“Photography is a medium which enables us to visually self-reflect on our thoughts and desires, and provides the therapist with a tool through which they can reflect on the patient’s personal world,” says photo therapist Shaya Ei-Magor, Head of the Safed-Kinyat Shmona district at Enosh. “Photography is the intersection between the psychiatric patient who ‘puts something out there,’ and the viewer who gets a glimpse into the photographer’s inner world. The image’s artistic effect enables a subtle closeness, sometimes to the point of blurred boundaries between the normative and the impaired.”

The 10-week therapeutic phototherapy course for individuals suffering from severe mental illness was delivered under the auspices of the Raphael Program, founded by Prof. Mary Rudolf, Head of the Department of Population Health at BIU’s Azrieli School of Medicine in the Galilee. The Raphael Program operates a social incubator where select organizations from the Galilee region work with the School to develop innovative solutions to advance the health of local residents.

The great majority of Israel’s citizens want a state that is both Jewish and democratic.

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Select Academic Conferences and Events

A sampling of academic conferences and events that took place in the past year

**April 2016**
- "Order and Chaos in the Quantum World" [Department of Physics]
- Fourth Jewish-Arab Conference, Sr. Dr. Naim Dangoor Program for Universal Monothesism [Faculty of Humanities]
- Agosim: A Visual Representation of the Old [Lous and Gabi Wexsfeld School of Social Work]
- First BIU Cyber Acatihon [Center for Research in Applied Cryptography and Cyber Security]

**May 2016**
- Integrating Haredim into the Workplace [Administration of Colleges and Academies]
- "Carmonium – The Reborn City of the Roman Emperors" [Martin (Sas) Department of Land of Israel Studies and Archaeology]
- Market/Mechanism Design in Israel [Department of Computer Science]
- 50 Years since the Founding of the Louis and Gabi Wexsfeld School of Social Work [Faculty of Social Sciences]
- Visual Forum for Jewish and Democratic Discourse on Shabbat in the Public Sphere [Faculty of Law]
- 2016 Conference of the Israeli Society for Translation Studies [Department of Translation and Interpreting Studies]
- Tenth Annual Shaindi-Rudolf Memorial Conference in Creative Writing [Department of English Literature and Linguistics]
- "Always Hungarians"? Hungarian Jews in Modern Times [Aharon and Rachel Dahan Center for Culture, Society and Education in the Sephardic Heritage]

**June 2016**
- HIIF Consortium Workshop [School of Engineering]
- The Day after Abu Mazan [Begin-Sadat Center for Strategic Studies]
- Mission, Empire and Early Modern Globalization. The Portuguese 'Padroados' [General History Department]

**July 2016**
- The Inner World of a Music Therapist: Personal and Professional [Department of Music]
- Globalization, Immigration and Education at the Edge of the Diaspora [Churgin School of Education]
- "From Terra Incognita to Terra Cognita: Tenth Annual National Festival and Artistic Photography Exhibition" [Wurzweiler Central Library]

**September 2016**
- Engineer and Architect’s Conference: Engineering and Manufacturing Natural Gas in Israel [School of Engineering]
- Fighting Terror: History, Ethics, and Jewish Law [Rudaig and Erica Jusselson Institute for Advanced Torah Studies]

**October 2016**
- Annual Conference of Israel Association for the Study of European Integration: The Transatlantic Trade & Investment Partnership (TTIP): Economic and Social Implications [Faculty of Law]

**November 2016**
- "Trump: Makeover: Reasons and Consequences" [Begin-Sadat Center for Strategic Studies, Centre of Excellence for National Security (CENS)]
- "History's March and Islamism's Hopeless Goal" [Begin-Sadat Center for Strategic Studies]
- "Marking the Departure and Deportation of Jews from Arab Countries: Aharon and Rachel Dahan Center for Culture, Society and Education in the Sephardic Heritage"
- "Israel from a New Eye: Tenth Annual Conference in Creative Writing [Department of Computer Science]

**December 2016**
- "50 Years since Shmuel Yosef Agnon received the Nobel Prize for Literature [Joseph and Norman Berman Department of Literature of the Jewish People]
- Ackerman Conference on Corporate Governance [Corporate Governance Chair]
- Inter-University Meeting of Yiddish Scholars in Israel [Rena Costa Center for Yiddish Studies]
- Deliberative vs. Non-Deliberative Choice and Public Policy [Faculty of Law]
- Kidnapped: Family Drama, the Case of the Kidnapped Children of Yemen [Aharon and Rachel Dahan Center for Culture, Society and Education in the Sephardic Heritage]
- The Nineteenth Israel Mini-Conference in Applied and Computational Mathematics [Department of Mathematics, Faculty of Exact Sciences, in cooperation with Israel Mathematical Union]

**January 2017**
- Lecture on New Solar System Discoveries [Department of Physics]
- "Praise Him with Loud-Sounding Cymbals" Conference on Sounds, Meaning, and Judaism [Midiach, Ludwig and Erica Jesselson Institute for Advanced Torah Studies, Department of Music]
- Rethinking Care Responsibilities: Using Market Mechanisms to Promote Gender Equality [Bar-Ilan and Tel Aviv University Faculty of Law]
- Conference on Women at Mid-Life [Gender Studies Program]
- "Israel Autism Conference: Autism-Israel in collaboration with Azriel Faculty of Medicine]
- "2017 Model UN Conference Technology and the Developing World [Israel Model UN Association, Bar-Ilan Model UN Society]
- The Challenge of Countering Antisemitism: An International Perspective [Aharon and Rachel Dahan Center for Culture, Society and Education in the Sephardic Heritage]

**March 2017**
- Research Workshop on Procedural and Declarative Memory, Language Acquisition, and Cognitive Processes: Developmental Trajectories and Impairments in Monolingual and Bililingual Children [Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center, Churgin School of Education, Department of English Literature and Linguistics, Israel Science Foundation]
- "2017 Israel Science Day: Making Innovative Technologies [Ministry of Science, Technology & Space, BINA]
- "A Glance at the World of a Child, Society, Culture and Creativity" – The Second Annual Multidisciplinary Seminar on Research of Child Culture [Joseph and Norman Berman Department of Literature of the Jewish People]
- "Heaven for thy Voice, Cause me to hear it." [Song of Songs] "Awake, Awake, Utter a Song" [Judges] Event in Honor of International Women’s Day [in cooperation with Ben-Gurion University, Achiot, Aharon and Rachel Dahan Center for Culture]
- "Archetypes of the Masculine and Feminine and their Reception throughout the Ages [Department of Classical Studies, Lily and Philip Schwebel Foundation, Prof. Miriam Faust – Rechter, Lechter Institute for Literary Research, Lewis Family Foundation for International Conferences in the Humanities]
- "Decision-Making and Mental Health [Department of Psychology in cooperation with University of Hatra]

**April 2017**
- "The Annual Israeli Genome Stability Meeting [Mina and Everard Goodman Faculty of Life Sciences]
- The Second Conference on Experimental Engineering [School of Engineering, AEAI, Ariel College of Engineering, Jerusalem]
- Opening Ceremony and International Conference in Vision Science [Mina and Everard Goodman Faculty of Life Sciences]

**May 2017**
- The NCNST-BINA Workshop on Nanoscience and Nanotechnology [Bar-Ilan Institute of Nanotechnology and Advanced Materials, National Center for Nanoscience and Technology (China)]
- "The Second Annual Conference 2017 [Department of Management, ORSIS – Operations Research Society of Israel]
- "Social Aspects of Monitoring and Supervision [Faculty of Social Sciences, Israeli Sociology Society, STS – BIU – Science, Technology and Society]
- "Cognitive Improvement: Approaches, Mechanisms and Applications [Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center, Faculty of Science, Technology and Space]

**June 2017**
- "Archetypes of the Masculine and Feminine and their Reception throughout the Ages [Department of Classical Studies, Lily and Philip Schwebel Foundation, Prof. Miriam Faust – Rechter, Lechter Institute for Literary Research, Lewis Family Foundation for International Conferences in the Humanities]
- "Decision-Making and Mental Health [Department of Psychology in cooperation with University of Hatra]

- "Zionist Activities in Arab Countries and Eastward. Celebrating the 120th Anniversary of the Zionist Congress [Aharon and Rachel Dahan Center for Culture, World Zionist Organization]"
- "Field: Women’s Successes and Challenges in Science and Business [Department of Psychology]"
BIU’s 101 New MDs

Throwing their caps in the air, 101 graduates of BIU’s Azrieli Faculty of Medicine in the Galilee celebrate becoming doctors. The new MDs include 59 members of the Faculty’s first graduating class of the four-year track (geared for Israeli BSc recipients) and 42 who completed the Faculty’s second cycle of the three-year program (which enables Israelis who began medical studies abroad to return home to complete their medical training). Earlier in the ceremony, Safed Mayor Ilan Shohat noted that six years after its founding “the Azrieli Faculty of Medicine is making a significant contribution to the development of Safed and the region.”

BIU’s Expanding Alumni Community

Bar-Ilan University’s Alumni Community (Kehillat HaBogrim) is broadening its operations. This past year 4,100 BIU graduates were welcomed into its ranks as the Alumni Community advanced its networking efforts and expanded its portal that provides BIU alumni with a growing array of career opportunities in the Israeli job market. The 2017 Career Fair, held on campus grounds, drew over 1,000 young men and women, and featured numerous companies seeking BIU grads, among them Israeli Aerospace Industries (IAI), BASHAN engineering projects consulting and management, and Futures First-international financial market consulting. Another successful event was the meeting with the Israeli Secret Intelligence Unit (Mossad) and Israeli Security Agency (Shabak) about career and employment options in Israeli intelligence, which targeted alumni and students in their final year of study.

The Alumni Community is working to launch additional initiatives, including a Mentoring Project intended to strengthen ties between influential alumni and young graduates at the outset of their careers; an exciting Campus Tour for alumni and their children, which will guide them through leading BIU departments and labs, and an alumni evening at the museum.

Active membership in the BIU Alumni Community expands one’s social network and can open many opportunities for personal and professional advancement. In addition, one can continue to enjoy academic enrichment offered by the university by participating in lectures, conferences and academic and professional seminars that are frequently held both on and off campus.

The BIU Alumni Community is working to engage alumni in serving as ambassadors of good will to future students, supporters of philanthropic projects, and career “door-openers.”

BIU grads are invited to visit the Alumni Community website at www.biubogrim.org.il/eng

Photo Op: New Grads

Alumni Community

BIU’s 2017 Alumni Achievement recipients: Irad Eichler (Class of 2003), social entrepreneur, founder and chairman of the non-profit Shekulo Tov, which integrates people with mental illness into the community; and Sarah Blau (Class of 1997), celebrated Israeli author, playwright and media personality.

Throng attend the Career Fair on the Bar-Ilan University campus.
This past year an unprecedented number of prizes and grants were awarded to BIU academicians

- **Prof. Zohar Amar**, of the Martin (Szusz) Department of Land of Israel Studies and Archaeology, won the “Rabbi Kook” prize for his book Ha’Zomeach ve’Ha’Chai B’Mishnat Ha’Rambam.

- **Prof. Izhar Bar-Gad** and **Dr. Dana Cohen**, of the Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center, won the [MAFAT] Prize for Creative Thinking.

- **Dr. Ittai Bar-Siman-Tov**, of the Faculty of Law, was awarded the 2016 Gomi Award for Young Researchers of Excellence in Public Law.

- **Prof. Rami Benbenishti**, of the Louis and Gabi Weisfeld School of Social Work, won the 2016 EMET Prize in Social Sciences for Social Work. He also received the Distinguished Career Achievement Award from the Society for Social Work Research (SSWR).

- **Rabbi Dr. Joshua Berman**, of BIU’s Zalman Shamin Bible Department and recipient of the Rotenstreich Fellowship of the Council of Higher Education, has been appointed to the International Advisory Board of the Museum of the Bible in Washington DC.

- **Prof. Dror Fixler**, of the Department of Land of Israel Studies and Archaeology, won the “Rabbi Kook” prize for religious literature.

- **Prof. Shmuel Refael**, of the Joseph and Norman Berman Department of Literature of the Jewish People, was elected as an advising member of the Royal Academy of the Spanish Language.

- **Prof. Moshe Rosman**, of the Israel and Golda Koschitzky Department of Jewish History and Contemporary Jewry, was awarded an Honorary Doctorate by Wrocław University in Poland, for his contribution to the study of Polish Jewry.


- **Prof. Emeritus David Schaps**, of the Department of Classical Studies, was elected President of the Association for Classical Studies.

- **Dr. Marcela Sulak**, of the Shaindy Rudoff Graduate Program in Creative Writing, won the INDEEFAB Gold Award for Adult Nonfiction for Family Reassemblages, an anthology of hybrid literary genres.

- **Prof. Haim Taitelbaum**, of the Department of Physics, was appointed a member of the Israeli Council for Higher Education.

- **Prof. Eli Vakil**, of the Department of Psychology, has been awarded the Distinguished Career Award by the International Neuropsychological Society (INS) for his contribution to neuropsychology.

- **Prof. Chaim Milikowsky**, of the Department of Talmud, won the “Rabbi Kook” Prize for religious literature.

- **Prof. Avi Zadok**, of the School of Engineering and the Bar-Ilan Institute for Nanotechnology and Advanced Materials, was appointed a member of the Israeli Academy of Sciences and Humanity.

- **Prof. Zeev Zalewsky**, Director of BINA’s Nano-Photonics Center, was awarded a Guest Professorship Fellowship as an Adjunct Professor in the Department of Physics at Ryerson University, Toronto, Canada. He also received the Fellow of the IET [Institution of Engineering and Technology] Award, and the Professorship Program Award at ITMO University in St. Petersburg, Russia.
Awards & Prizes

146 Research Grant Recipients in Academic Year 2016-2017

• Dr. Karen Agyi-Shay, of the Azrieli Faculty of Medicine, was awarded a research grant from the Israel Ministry of Environmental Protection.
• Prof. Sharron Aron-Lotem, of the Department of English Literature and Linguistics, was awarded a German-Israeli Foundation (GIF) Research Grant.
• Dr. Amir Azin, of the Department of Psychology, was awarded research grants from the Israel Science Foundation (ISF) for institutional equipment and new lab equipment.
• Prof. Aron Armon, of the Faculty of Jewish Studies: Sowmel & Oral Law, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Ronen Avraham, of the Department of Chemistry, was awarded a research grant from the Israel Council for Higher Education and the Israel Science Foundation (ISF) for research cooperation.
• Prof. Tal Awad, of the Department of Management, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Ronen Avraham, of the Department of Biology, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Noga Agay-Darshan, of the Department of Hebrew and Semitic Languages, was awarded a research grant from the Israel Science Foundation (ISF) for publication.
• Prof. Lior Eyal, of the Louis and Galia Weizfeld School of Social Work, was awarded a research grant from the Israel Science Foundation (ISF) for workshops and conferences.
• Prof. Irena Berman-Frank, of the Mina & Eunard Goodman Faculty of Life Sciences, was awarded a research grant from the US-Israel Binational Science Foundation (BSF).
• Prof. Dror Brezno, of the Department of Mathematics, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Stav Bure, of the Department of Physics, was awarded a research grant from the Mina & Eunard Goodman Faculty of Life Sciences (ISF) for workshops and conferences.
• Prof. Kimm Kagan, of the Israel and Golsh Koshitzky Department of Jewish History and Contemporary Jewry, was awarded a research grant from the Israeli Cancer Association (ICA).
• Prof. Ilan Kallay, of the Department of Physics, was awarded a research grant from the ICA - Israeli Cancer Association (ICA) for institutional equipment.
• Prof. Talia Ben-Ami, of the Department of Chemistry, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Tamar Ben-Ari, of the Department of Computer Science, was awarded a research grant from the ICA - Israeli Cancer Association (ICA) for institutional equipment.
• Prof. Aharon Gedanken, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Ran Geles, of the School of Engineering, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Gilad Segal, of the School of Engineering, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Dori Segal, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Ranit Shemer, of the School of Engineering, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Moshe Zussman, of the School of Engineering, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Tamar Kalem, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Nofir Tzion, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Nezrali Aharon, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Beena Kalisik, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Nishal Liao, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Tamar Laks, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Arieh Laks, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Dr. Tamar Laks, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Moshe (Jean-Paul) Letourneau, of the Department of Computer Science, was awarded a research grant from the ICA-Israel Cancer Association (ICA) for institutional equipment.
• Prof. Eyal Ben-Dov, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for workshops and conferences.
• Prof. Shalom Lessen, of the Department of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for workshops and conferences.
• Prof. Rami Feigenbaum, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Rachel Fish, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
• Prof. Yaacov Fish, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
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• Prof. Yaacov Fish, of the School of Computer Science, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.
Dr. Renyi Muto, of the Mina & Everard Goodman Faculty of Life Sciences, was awarded a research grant from the Israeli Ministry of Health, ERANET, and the Israeli Ministry of Science: Israel-Korea Cooperation.

Dr. Jonathan Rubin, of the Martin (Szus) Department of Land of Israel Studies and Archaeology, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.

Dr. Sharon Ruthstein, of the Department of Chemistry, was awarded a Horizon 2020 ERC Starting Grant.

Dr. Horacio Sabata, of the Faculty of Jewish Studies: Samuel & Bar-Ilan Law, was awarded a research grant from the Israel Science Foundation (ISF) for individual research.

Prof. Joseph Tabory, of the Faculty of Jewish Studies: Biblical and Israelite Studies, was awarded a research grant from the Israel Science Foundation (ISF) for workshops and conferences.

or the very first time, four Bar-Ilan University faculty members have been awarded prestigious grants from the European Research Council (ERC) in a single year! The researchers are Dr. Ayal Hendel, Prof. Nathan Keller, Dr. Yuval Mandel and Dr. Sharon Ruthstein.

The ERC supports frontier research, cross-disciplinary proposals and pioneering ideas in new and emerging fields introducing unconventional and innovative approaches. The ERC Starting Grants program is open to outstanding, independent researchers in any field who wish to carry out innovative research demonstrating scientific excellence. ERC Starting Grants are designed to support outstanding principal investigators at the beginning of their independent research careers.

Within this framework, BIU's Research Authority submitted 14 ERC grants, of which six passed the first stage of evaluation and the researchers were invited to Brussels for interviews. In July 2017, BIU was notified that four out of these six candidates won the highly competitive ERC Starting Grants, representing a significant addition of €6 million to the university’s research activities.

This remarkable success can be attributed to the unique multi-phase process devised by the Research Authority which includes assistance in proposal preparation, interview training and support to researchers applying for ERC funding. In addition, grant-seekers have access to a collaborative team of mentors and supervisors who include the Research Authority staff, external consultants, and former grant recipients to guide and advise the applicants.

"This is a noteworthy achievement for Bar-Ilan University and a vote of confidence in our gifted early career researchers,”

says Dr. Eli Even, Head of BIU’s Research Authority. "Only 6-8% of applicants receive this generous grant of €1.5 million over five years. The fact that four BIU researchers won this prestigious award in 2017 underscores the originality and promise of their groundbreaking studies, and the huge sum of this award provides the financial resources for young scientists to focus on their research.”

Dr. Ayal Hendel, who heads the Genome Editing & Gene Therapy Laboratory in BIU’s Mina and Everard Goodman Faculty of Life Sciences, has received an ERC grant for his lab’s novel research in gene correction and treatments for genetic diseases. Dr. Hendel is working to develop the innovative CRISPRI technology — which employs a miniscule tool, a RNA molecule to help repair broken genes — thus leading the way to better treatment options for children suffering from such illnesses as sickle-cell anemia and cancer, and immune diseases like the "bubble boy" syndrome.

Prof. Nathan Keller, of the Department of Mathematics and the BIU-partnered National Center for Research in Applied Cryptography and Cyber Security, has received an ERC grant for his crypographic project which deals with the security of Internet-of-Things devices [e.g. smart cars, smart homes, medical implants]. Many classical encryption methods cannot be used since these devices are too small to support classical ciphers [algorithms for performing encryption or decryption], and since cyber-attackers have become more sophisticated Dr. Keller’s lab is developing new classes of ciphers, which will enable society to use billions of devices more securely.

Dr. Yuval Mandel, a certified ophthalmic surgeon who holds a PhD in Bioengineering and heads BIU’s Ophthalmic Science and Engineering Lab [and has co-founded the university’s new School of Optometry and Vision Science at the Mina & Everard Goodman Faculty of Life Sciences], examines methods for vision restoration in patients suffering from retinal degeneration.

With the ERC award, his lab aims to develop a breakthrough in retinal prosthetics technology by devising a hybrid retina implant composed of neurons integrated in a high density electrode array. In this unconventional approach, the goal is to restore vision to blind patients to an almost natural visual acuity and quality.

Dr. Sharon Ruthstein, of the Department of Chemistry, focuses on various electronic magnetic resonance imaging methods which examine chemical and biological processes. Her laboratory has received an ERC grant for its three-phase research method for her innovative work, with copper ions which will help create biomarkers for oxygen-deficient cells and ultimately small molecules that will provide exciting new treatments for copper-ion hearing diseases such as Alzheimer’s and Parkinson’s disease.

The awardees (l to r): Dr. Sharon Ruthstein, Dr. Yossi Mandel, Prof. Nathan Keller, and Dr. Ayal Hendel.
To our Friends and Visitors,

Run to Bar-Ilan... or walk... or ride a free bike... or take the shuttle around campus.

BIU is proud to announce its new Open Campus program, which makes the beautiful BIU campus accessible to visitors and the community until the stars twinkle bright.

Choose your transportation mode, and now enjoy BIU not only during the day, but until midnight.

Bar-Ilan University Open Campus
Make a "sporting" effort to join us