

Catalyzing Solutions to  
Climate Change

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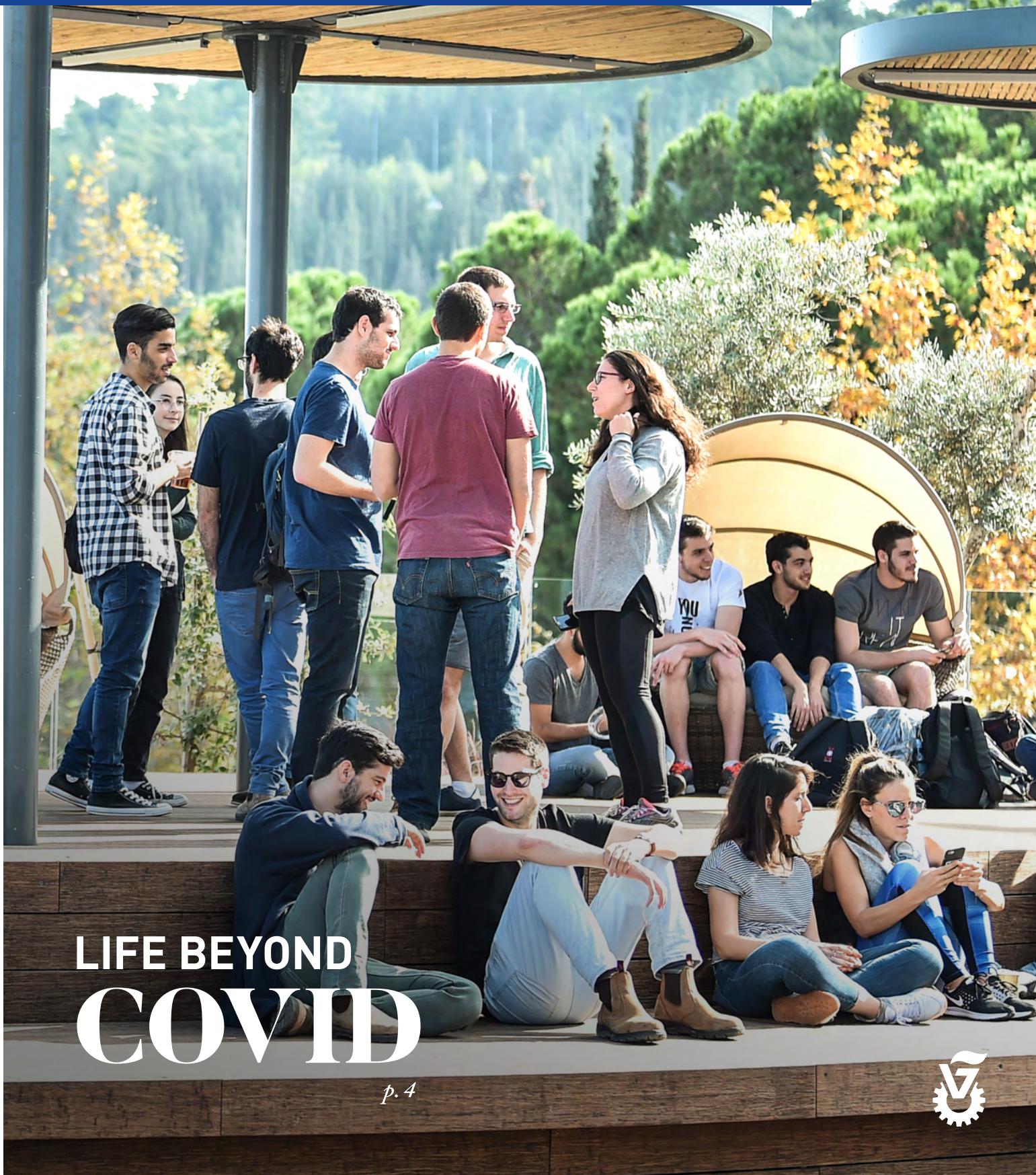
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# TECHNION USA



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## CONTRIBUTORS

- Jenny Partivit**  
Director, Marketing  
**Kevin Hattori**  
Associate Director,  
Communications & Content  
**Jennifer Frey**  
Editor and Writer  
**Poornima Apte**  
Contributing Writer  
**Iwan Bann**  
**Jeff Weiner**  
**Nitzan Zohar**  
Major Photography  
**Stephanie Schuyler**  
Graphic Designer

## LEADERSHIP

- Steve Berger**  
President  
**Zahava Bar-Nir**  
Chair of the Board  
**Michael Waxman-Lenz**  
CEO

**National Office**  
55 East 59th Street  
New York, NY 10022  
212.407.6300  
ats.org

## Letter From ATS Leadership

**A**s we write this, more and more people are receiving the COVID-19 vaccine. Children are returning to in-person education. Businesses are reopening. Every day, we're seeing more reasons to feel hopeful.

Much of that hope is thanks to what has unfolded at the Technion over the past year. Researchers quickly pivoted to address the pandemic, developing more than 50 COVID-19 research studies and innovations. Some COVID-19 research went from the drawing board to deployment in hospitals in Israel and the U.S. in less than two months. Students adjusted admirably to all-virtual classes, still finding the time to pack food and distribute meals to local senior citizens who were self-isolating. And as of April, students were once again permitted on campus.

Yet the Technion also looked beyond the pandemic, knowing that even though the coronavirus consumed society's attention, other crises — our planet's dwindling resources, devastating diseases like cancer and Parkinson's, and the defense and protection of Israel — still rage on. We're pleased to share that even as the Technion made extraordinary efforts to tackle COVID-19, scientists continued to produce innovative research and breakthroughs across the board.

Sincerely,



*Steve Berger*  
Steve Berger  
President



*Zahava Bar-Nir*  
Zahava Bar-Nir  
Chair of the Board



*Michael Waxman-Lenz*  
Michael Waxman-Lenz  
CEO

You will get a firsthand look at this inspirational work — as well as some of the phenomenal Technion people making it possible — in this issue of *Technion USA*. This edition is brimming with stories of determination, creativity, and sheer genius. We recognize that every page and every accomplishment was made possible by the devotion and dedication of this community. Despite the tumult of the past year, the ATS community has remained committed to a strong Technion and thriving Israel. Your support and encouragement is making that vision real every single day.

Meanwhile, ATS is busier than ever before. Since Technion faculty can no longer visit us in person, we launched a virtual event series. From March of last year through March 2021, we held nearly 20 *Live From Technion* national webinars as well as many local and alumni events, attracting more than 1,000 participants. In one webinar, we had the opportunity to virtually meet the 2021 Berger Visiting Fellows, Israel's next generation of global leaders and innovators. It is only a matter of time before this diverse and brilliant group of graduate and undergraduate students becomes the influential scientists and entrepreneurs of tomorrow. We look forward to sharing their accomplishments with you in a future edition of *Technion USA*.



**We have to start embedding leadership skills in a more general arena, on nontraditional studies like entrepreneurship, ethics, environmental awareness... We believe these are essential for the technological leaders of tomorrow.**

- Prof. Uri Sivan

# LIFE BEYOND COVID

## President Uri Sivan's Vision for a Stronger Technion

**W**

hen Professor Uri Sivan began his presidency in October 2019, the world was a very different place. While he was prepared to lead the Technion through many challenges, he could not have predicted weathering a global pandemic would be one of them.

Yet more than a year into the pandemic, the Technion is flourishing. New collaborations with hospitals and other research institutions have been established, yielding valuable new insights in artificial intelligence (AI), health care, and sustainability. The Technion is moving full steam ahead on ambitious campus expansion plans that will keep the Technion competitive with the top universities in the world. Students came back to campus this spring to finish the 2020–21 academic year in person. And the Technion had a record year in faculty recruitment, bringing on 36 new professors, which is 50% more than most years.

"During the pandemic, we learned how strong and cohesive the Technion family is in times of crisis," said President Sivan. "We established emergency funds together with Technion Societies around the world, and the response was overwhelming. The ingenuity and improvisation shown by our researchers was remarkable."

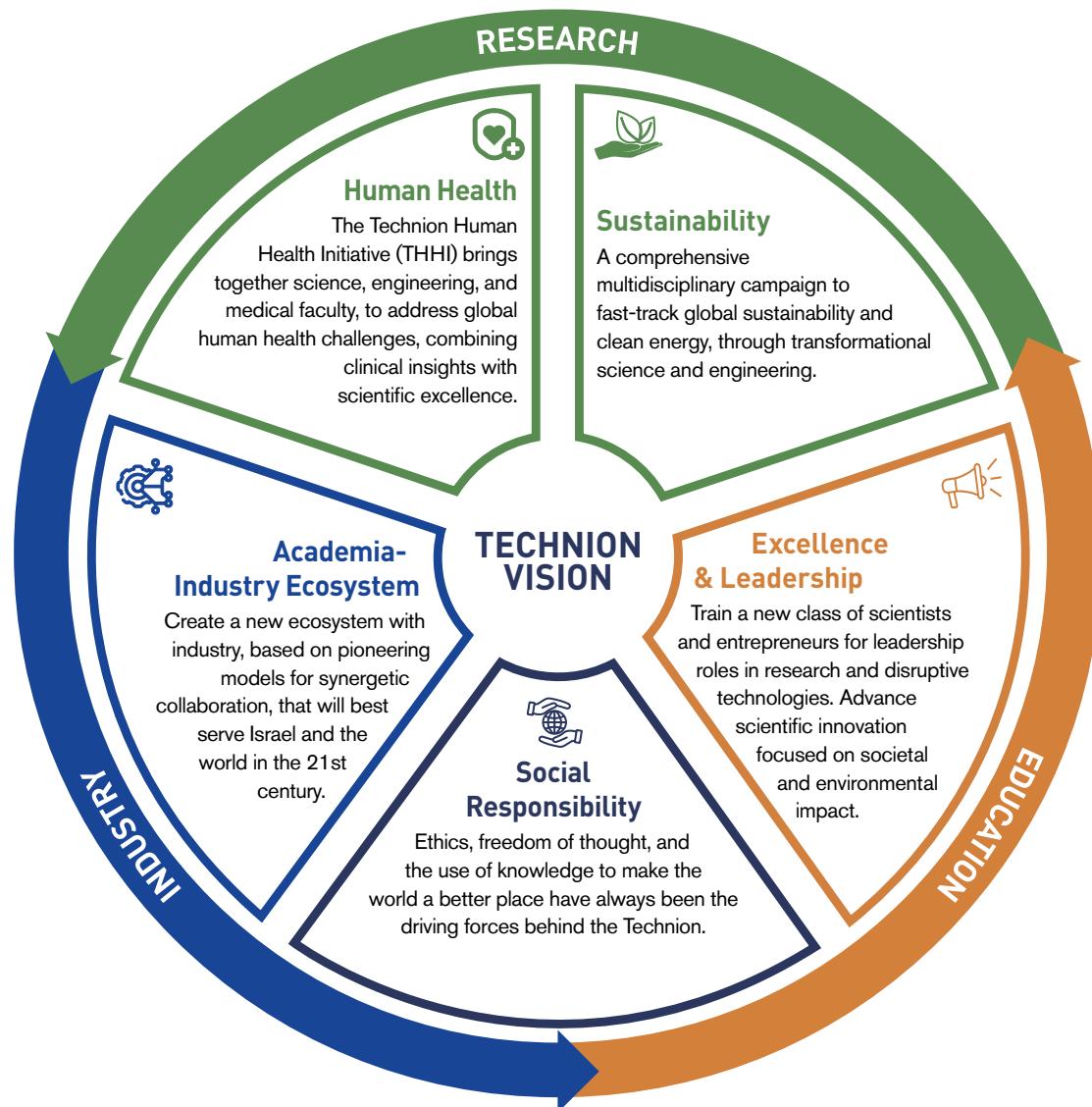
Some of this success is no doubt due to classic Israeli grit — Israelis are no strangers to staring down challenges. But much of this is thanks to the Technion spirit of relentless innovation and agility — qualities President Sivan had in mind when formulating a strategic vision for the Technion's future.

To tackle the challenges of the 21st century, the Technion must entirely reimagine research, education, and industry. These areas form the pillars of President Sivan's vision for the Technion's continued prosperity.

### Boundary-Breaking Research

The Technion has long eschewed the typical silos of academia, encouraging faculty and students to build research partnerships outside their areas of expertise. This approach has brought together the basic sciences and engineering to develop medical devices and countless other technological breakthroughs, helping Israel earn the moniker "Start-up Nation." "The Technion vision has prepared, shaped, and empowered the high-tech nation, which is the Israel of today," said President Sivan.

Notwithstanding the hardships brought on by COVID-19, the crisis has remarkably accelerated opportunities for commercialization. This year, the Technion launched a record 15 new companies. To catalyze even more breakthroughs, the Technion is establishing a network of multidisciplinary research institutes focused on the grand challenges of the new century: human health,



energy, sustainability, and advanced manufacturing. These centers will cross disciplines and approaches to bring out the best in the Technion and its people.

## Education to Equip the Next Generation

The world is changing. "Just a few years ago, university professors were the sole source of information and authority," President Sivan said. "This is not the case now. People have easy access to information."

To prepare the next generation of scientists, entrepreneurs, and innovators, our education methods must match the needs of the 21st century — which is exactly what the Technion is doing.

"We have to start embedding lead-

ership skills in a more general arena, on nontraditional studies like entrepreneurship, ethics, environmental awareness — skills that are different from conventional engineering," President Sivan said. "We believe these are essential for the technological leaders of tomorrow."

By giving students a broad perspective in addition to a world-class science and engineering education, the Technion is setting graduates up to better understand the ethical, environmental, and societal ramifications of their professional endeavors.

## Revolutionary New Partnerships Between Industry and Academia

Increasingly, major corporations are

building their own research teams, competing with universities for the best and brightest minds.

Where some see a formidable barrier, President Sivan sees opportunity.

"We need to reach a new understanding with those companies," he stated. "They need to understand that their long-term interest is in preserving academic interest and protecting curiosity-driven research. We need to streamline the technology transfer from the university to tech and startup companies."

By bringing industry deeper into campus, the Technion immediately benefits from industry researchers' deep bench of knowledge and resources in the lab. This gives the Technion firsthand access to technology



and information from some of the world's most cutting-edge companies. Technion students also immensely benefit from the opportunity to learn from these experts as teachers and mentors, further enriching their Technion education.

## Getting Back to Campus Safely

As President Sivan was envisioning this strategic direction for the Technion, he could not have imagined campus would grind to a halt as the world dealt with a bruising global pandemic. The Technion adjusted quickly to remote learning, but students and faculty are eager to get back to "normal" life in classrooms and labs across campus.

As part of the Technion's "Open and Safe Campus" initiative, the Technion is using technology developed in part by Associate Professor Eran Friedler to monitor wastewater on campus for signs of COVID-19. And they are testing students, faculty, and visitors alike with NaorCov19, a rapid test developed by Assistant Professor Naama Geva-Zatorsky.

"It is extremely important to bring students, faculty members, and staff back to campus in order to return to a healthy and safe routine of teaching and researching on campus alongside the virus," said President Sivan. "The Technion campus is one of the first places to implement this innovative technology for constant monitoring of the coronavirus. As a result, we will

be able to deal with issues at an early stage and block the spread."

Solving a 21st-century challenge with Technion innovation? Sounds like the Technion is well on its way to realizing the extraordinary vision set forth by President Sivan. ■

**Pictured Top Left /** An illustration representing the Technion Strategic Vision

**Pictured Top Center /** Prof. Eran Friedler (top l) with members of his lab testing wastewater on campus during the coronavirus pandemic

**Pictured Top Right /** Prof. Naama Geva-Zatorsky showing her NaorCov19 rapid test to Prof. Uri Sivan

# CATALYZING SOLUTIONS TO CLIMATE CHANGE

The Technion Center for Sustainable Processes and Catalysis will take on a formidable challenge — and has the deep talent to do so.

**Catalysts will be game-changers for resolving challenges such as the exponential growth in the consumption of power and natural resources.**

- Prof. Ilan Marek

Laundry stain remover. Penicillin. Stone-washed jeans. Catalysts help manufacture more than 90% of such everyday products. Now this class of compounds is set to tackle one of our biggest existential threats: climate change. And the Technion is responding by launching the Center for Sustainable Processes and Catalysis. It comes not a moment too soon.

The world's population is projected to reach 8.5 billion by 2030, and **Professor Ilan Marek**, who is chair of the Catalysis Center and the Sir Michael and Lady Sobell Academic Chair, argues that we need all hands on deck. "We need to [maintain] progress but do it in a different manner," he said. "We need to preserve our planet." The Center

will serve as an incubator for new fields of catalysis research that can scale easily and benefit humanity.

Catalysts accelerate chemical reactions without being consumed, so they can be created and reused. **Assistant Professor Graham de Ruiter** of the Schulich Faculty of Chemistry likens catalysts to a tunnel that cuts through a mountain, connecting two villages on either side. You could travel between the villages by climbing the mountain or by using the tunnel. The catalyst is like the tunnel: It gets you there faster.

**Professor Gideon Grader**, whose research is rooted in catalysis, is part of the



Pictured Top / Breakthrough prototype system for efficient and safe production of hydrogen using only solar energy



Center's interdisciplinary team. He will focus on advancing the development of inexpensive and clean hydrogen using water-splitting technology. Prof. Grader helped launch the startup H2Pro, backed by Bill Gates to build the research to a commercial level. He is one of five recipients of the 2020 Eric and Sheila Samson Prime Minister's Prize for Global Innovation in Smart Mobility and Alternative Fuels. H2Pro was also a winner at the New Energy Challenge competition hosted by Shell.

**Professor Ayelet Fishman** researches biocatalysts to create plant-based meat and dairy alternatives. She also works on bacteria that devour formaldehyde, a water-polluting toxin found in everyday products including furniture and carpeting.

These projects are just a few of the many related to catalysis at the Technion, which boasts Israel's largest number of researchers in the field. "Catalysts will be game-changers for resolving challenges such as the exponential growth in the consumption of power and natural resources," Prof. Marek said.

Our planet's natural resources will only become more strained in the coming decades. To build a more sustainable world — one that ensures all of humankind has the water, food, and energy needed to survive — the world will ask a lot of the Technion. And the Center is ready to deliver. ■



## NEW BREAKTHROUGHS

### Keeping Technion Medical Science on the Cutting Edge

As one of the few engineering institutes worldwide with its own medical school, the Technion has transformed our knowledge of human health. Its scientists have made great strides in cancer research, personalized medicine, targeted drug delivery, and COVID-19 testing. Here are just two recent medical breakthroughs.

**Professor Shai Shen-Orr** is helping Pfizer fast-track drugs to the marketplace. The pharmaceutical giant, which won accolades for developing one of the most widely used COVID-19 vaccines in record time, turned to Prof. Shen-Orr's startup, CytoReason, to help determine which conditions and patients would benefit from a specific drug.

Pfizer had developed a compound that seemed to effectively treat autoimmune diseases, but it covered a wide range of conditions, from lupus to inflammatory bowel disease. Using CytoReason's machine-learning platform, Pfizer narrowed down the drug's possible uses, determining that it would work best in treating ulcerative colitis. In addition, CytoReason technology, which combines AI with reams of data to develop digital models of the human immune system and diseases, allowed Pfizer to bypass animal testing. This move saved about 18 months of drug development and related costs.

"The results we found in partnership with CytoReason supported Pfizer's decision to begin the clinical development

of this drug," said Mike Vincent, chief scientific officer of Pfizer's Inflammation and Immunology Research Unit.

Technion researchers are inching closer to creating implantable bone tissue in the lab — a game-changer for reconstructive surgery. Until now, surgeons performing reconstructive surgery have had to transplant a patient's healthy tissue from one part of the body to the damaged site. In rebuilding the jaw of a car accident victim, for example, surgeons might use part of the patient's fibula bone and surrounding soft tissue for the implantation. But this approach is painful and can cause complications.

Seeking an alternative, **Dr. Idan Redenski** and a team of researchers in **Professor Shulamit Levenberg's** Stem Cell and Tissue Engineering Laboratory are developing a *de novo*, or "from the new," lab-grown tissue flap from scratch. They tested their methodology to repair a bone defect in a rat. The rat recovered completely, and its cells grew around and replenished the implant.

Returning to the idea of a jaw implant, the scientists hope that in the near future, patients will be able to receive lab-grown bone, matched perfectly to the shape of their face, supported by artificial soft tissue cultivated on three-dimensional biomaterials. ■

Pictured Top / Prof. Shai Shen-Orr (l) and Prof. Shulamit Levenberg (r)

# A Campus Love Story Spanning Three Continents

**Nathan Fischel MD '83 and Fariba Ghodsian '83**



**S**he was studying chemical engineering and he was in his last year of medical school. Yet, their paths crossed. “I was taking a tennis class and Nathan spotted me,” said Fariba Ghodsian. The two later married. “Credit goes to the Technion,” she said. Now they are returning the favor.

Drs. Ghodsian and Fischel have generously supported the Technion with the Dr. Fariba Ghodsian and Dr. Nathan Fischel Graduate Fellowships Fund in the Nancy and Stephen Grand Technion Energy Program and the Ghodsian-Fischel Fellowship Fund in the Center for Security Science and Technology. Both serve on the ATS National Board and the ATS – Southern California Board. “Whatever you give to the Technion has a ripple effect because the Technion supports defense in Israel, high-tech, biotech, and many other industries,” said Fariba.

She and Nathan also work to introduce Technion alumni to ATS. “We have a lot in common and many of us are successful in our field,” said Fariba. “The ATS gives us an opportunity to get to know each other and network.” The couple thanks the Technion not only for serving up their “love match,” but also for jump-starting their careers.

Born in Germany, Nathan came to the Technion where he received preparatory classes to learn Hebrew. He was pleased with the academic seriousness of student life and was lucky enough to study with Nobel laureate Distinguished Professor Avram Hershko. “I kept those notes for 30 years,” he said. Nathan also did his thesis under a young professor then at the start of his career — former Technion President Peretz Lavie.

**It has been so gratifying to see ... the Technion become such a strong force in shaping Israel. We're grateful to be a part of it."**

*- Fariba Ghodsian*

Nathan’s career got off the ground with his acceptance into a residency program at Boston Children’s Hospital at Harvard Medical School, a move he attributes to his Technion training. Following a research fellowship in hematology/oncology at the University of Oxford and Harvard, he became a professor at Cedars-Sinai Medical Center and the UCLA School of Medicine, retiring in 2009. He also founded a genomics company and in 1999 started DAFNA Capital Management, a hedge fund that invests in biotechnology and medical device companies.

Fariba was born in Iran and started studying at the University of Tehran in 1977, just as the political situation was becoming uncertain. Transferring the following year to the Technion, she took a course with Nobel laureate Distinguished Professor Dan Shechtman and thrived in “an informal atmosphere that stimulated discussion and invited challenge.” The Technion paved the way for a master’s degree at MIT, “and everything built on that,” she said.

She then earned her Ph.D. in biomedical engineering at the University of Oxford, conducted postdoctoral research at Harvard Medical School, and received an MBA at UCLA. Gravitating from the biotech industry to investments, she was named one of the top five biotechnology analysts by the *Wall Street Journal* in 2002. Fariba then joined Nathan at DAFNA, where she is chief investment officer.

“It has been so gratifying to see our professors become Nobel laureates and the Technion become such a strong force in shaping Israel,” said Fariba. “We’re grateful to be a part of it.” ■



# The Technion Was My Dream ... Period.

**Alumnus Avraham Ashkenazi Recounts How the Technion Helped to Build Israel and His Own International Career**

mountains and forests, a lot will start happening when you start walking.” His advice could be the road map of his life.

Growing up in Bulgaria, Mr. Ashkenazi attended a Jewish school and was a member of a Jewish youth organization, the Young Pioneers. His mother, Shoshana, sang in a Jewish choir, while his father, Shemuel, played the violin and saxophone at the local Jewish orchestra. His grandfather trained youth to work the land in preparation for kibbutz life.

In 1948, at age 10, he and his parents sailed on the “Atzmaut” (Hebrew for “independence”) to Haifa, settling in a refugee camp. The family eventually found an abandoned house in Haifa, without electricity or water, and started building a life in Israel.

He attended a technical high school run by the Technion, and then joined the intelligence division of the Israel Defense Forces. “That was in 1957, just nine years after the creation of Israel,” he said. “Everything was fresh, and we were enthusiastic and did amazing things for the security of Israel.” After the service, he was accepted into the Technion.

“The Technion was my dream. I wanted to become an engineer — period,” he said. “It was Israel’s only engineering school so when we graduated, we filled most of

*continued on p. 13*



**Pictured Top /** Patricia z'l and Avraham Ashkenazi (center) receiving their Guardian pins from then President Peretz Lavie (l) and then Vice President Boaz Golany (r)

**Pictured Left /** Avraham Ashkenazi (r) with his late wife Patricia



AI

## The Future of Computer Science

You know that artificial intelligence (AI) helps power your smart home devices, your favorite social media sites, and even some of the health care innovations we rely on every day.

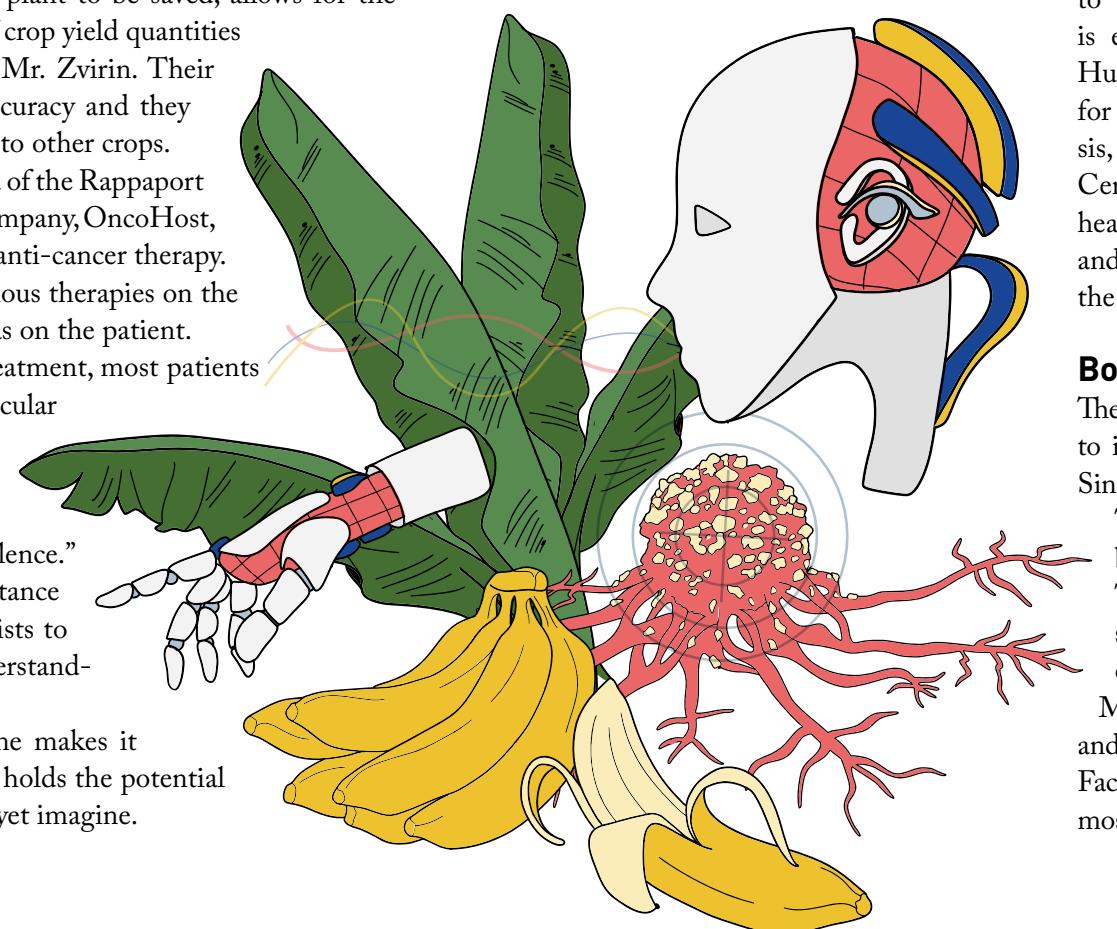
But what about the banana on your kitchen counter? It turns out that AI helps your banana grow, too, thanks to pioneering work from Technion research assistant Alon Zvirin; Professor Ron Kimmel, head of the Geometric Imaging Processing Lab and the Montreal Chair in Sciences in the Henry and Marilyn Taub Faculty of Computer Science; and chief engineer Yaron Honen.

The team developed smart technology that analyzes color photographs and thermal imaging using AI deep learning to monitor and predict banana crop stress and leaf segmentation. Being able to predict water and heat stress early allows growers to quickly intervene, avoiding premature death and crop loss. “The detection of drought stress enables the plant to be saved, allows for the identification of diseases and the prediction of crop yield quantities — crucial information for the grower,” said Mr. Zvirin. Their AI-powered technology worked with 90% accuracy and they are already applying this innovative technique to other crops.

Across campus, Professor Yuval Shaked, head of the Rappaport Technion Integrated Cancer Center, and his company, OncoHost, are using AI to predict a patient’s response to anti-cancer therapy. While scientists have studied the effect of various therapies on the tumor, few have analyzed the effect therapy has on the patient.

“Despite considerable advances in cancer treatment, most patients do not respond to therapy at all or from a particular stage,” said Prof. Shaked. “Without the ability to predict the effectiveness of treatment, many suffer from disease recurrence or spread, which sometimes erupts with even greater violence.” Their research is expected not only to curb resistance to cancer therapies, but also to allow oncologists to develop tailored treatment plans based on understanding the patient’s unique biological processes.

Profs. Kimmel’s and Shaked’s research alone makes it clear: AI does more than power computers. It holds the potential to make our lives better in ways we can’t even yet imagine.



### Harnessing the AI Revolution

Since its beginnings, the Technion has moved in lockstep with Israel as the country grew. The Technion trained the civil engineers who built the budding nation’s highways and infrastructure, the agricultural engineers who greened the desert, and the high-tech entrepreneurs who helped create Israel’s modern-day economy.

So when the Israeli government warned of a looming shortage of skilled high-tech personnel in 2017, the Technion and its supporters again answered the call.

In October 2018, the Technion inaugurated the Machine Learning and Intelligent Systems (MLIS) Research Center to advance AI research in areas including natural language processing and deep learning, and to deepen the university’s collaboration with industry. Intel was the first Fortune 500

company to announce its involvement.

Just months later, American Technion Society (ATS) supporters Eric and Jamie Gertler, acting as trustees of the Zuckerman Institute, committed to funding a variety of AI projects at MLIS. “Advancements in AI are critical to Israel’s continuation as a startup nation,” said Jamie Gertler. “And recent AI rankings show that the Technion is punching well above its weight.”

The Technion ranks #1 in Israel and #10 in the world in AI and robotics. In a move that would build on those strengths, the Technion and Carnegie Mellon University, the world’s top-ranked university in those disciplines, have recently announced a new partnership focused on advancing AI and robotics.

Other initiatives are in the works to address the way AI has changed our views on everything from medicine to consumer goods. The Technion is establishing the multidisciplinary Human Health Institute, the Center for Sustainable Processes and Catalysis, and the Advanced Manufacturing Center — all of which will lean heavily on AI to develop research and technologies that will shape the future.

### Boosting Computer Science

The Technion’s prowess in AI is linked to its excellence in computer science. Since the 1960s, the late Henry Taub and his wife, Marilyn, have been generous supporters of the Technion with a focus in computer science. They made possible the construction of the Henry and Marilyn Taub and Family Science and Technology Center, home of the Faculty of Computer Science. And most recently, their family foundation

provided a major donation to help support faculty recruitment, fund student scholarships and fellowships, and expand computer science research.

Their gift is crucial at this juncture, as it is expected to directly translate into a substantial increase of high-tech employees in the workforce to keep up with the incredible growth of the country’s tech sector. In honor of their decades-long commitment, the faculty was renamed in August 2020 the Henry and Marilyn Taub Faculty of Computer Science. “The generous contributions of the Taub family will help the Faculty of Computer Science maintain and advance its leadership position in Israel’s tech-based economy,” said Professor Dan Geiger, dean of the Faculty.

Once again, in response to Israel’s need for more skilled high-tech workers, the Technion launched a major expansion plan. In its current form, the Technion’s computer program has reached a saturation point, and can’t increase the number of graduates without adding physical space. Their plan includes a new 75,000-square-foot, state-of-the-art building that will house classrooms, seminar and meeting rooms, auditoriums, laboratories, faculty and researcher offices, study rooms, and underground parking.

At a time when prestigious universities and businesses are actively recruiting the most promising faculty members and students, this expansion — in conjunction with the Technion’s initiatives in AI — is crucial to helping the Technion continue to excel. That not only means a stronger Technion and more prosperous Israel — it also means we have even more exciting, AI-powered innovations to look forward to in our future. ■

*continued from p. 11*

the country’s engineering jobs, from water management to aerospace.” His studies were not easy, but he credits his education in industrial engineering for shaping his career. He started as a consultant for a variety of factories, then landed a job at Israel’s leading defense company, Rafael.

In 1970 he joined Koor Industries, a holding company started by Israel’s Histadrut labor union that was established to create jobs for Jews in Israel and those making aliyah after World War II. Mr. Ashkenazi managed a factory that manufactured steel and wire mesh for use in the construction industry. In 1977, he was sent to Iran to work for Koor’s business operations. He was there during the Iranian Revolution and was on one of the last El Al flights from Tehran to Tel Aviv in February 1979.

After he returned from Iran, he managed Koor’s MTLAM, a precision manufacturing plant for aviation and computer assemblies.

He eventually moved to Norfolk and founded IAT International Inc. in 1985, which he still runs today. IAT International provides equipment and services for the railway industry and maintains offices in the U.S., Israel, and the Czech Republic.

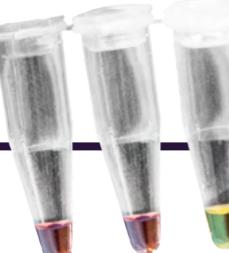
About six years ago, Mr. Ashkenazi and his wife were invited to an American Technion Society event, where then Technion President Peretz Lavie was speaking about recruiting Technion Ph.D.s from postdoc programs abroad, back to Israel to teach on the Technion faculty. The Ashkenazis were instantly inspired, committing to support three postdocs on the spot.

Soon after, Mr. Ashkenazi told his late wife Patricia he was thinking of getting involved in the Technion “a little bit,” he recalled. “That was it,” he said of his first step on a new road. ■

# Technion INNOVATIONS

 **Rapid COVID-19 Test**  
Developed by Prof. Naama Geva-Zatorsky

The **NaorCov19** test diagnoses SARS-CoV-2 from saliva in 40 minutes and processes dozens of samples simultaneously. The test has been approved by the EU.

 **Sniff Test for COVID-19\***  
Developed by Prof. Hossam Haick

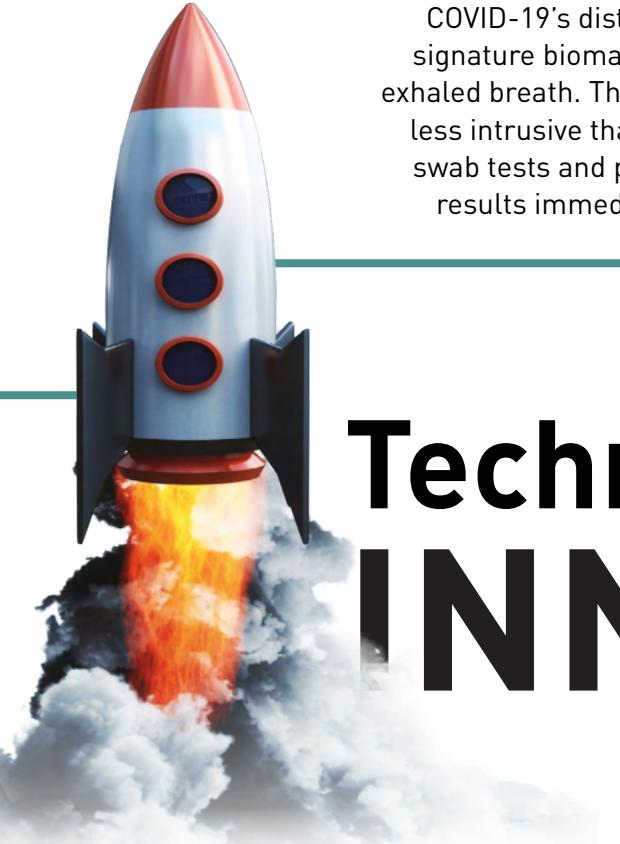
A device that uses nanomaterial sensors and machine learning can detect COVID-19's distinctive signature biomarkers in exhaled breath. The device is less intrusive than nasal swab tests and provides results immediately.

 **Lifesaving Aerospace Tech**  
Developed by Prof. Pini Gurfil and a team of students, researchers, and industry experts

Advanced satellite technology could save lives by precisely locating distress signals. Part of Israel's historic **Adelis-SAMSON** space mission, the system can be used for search and rescue and environmental monitoring.

 **Protective Sticker for Masks**  
Developed by Prof. Eyal Zussman

The 3D-printed **Maya™** sticker covers surgical masks to dramatically boost protection for frontline medical workers from viruses and bacteria. In mass production in Israel, the adhesive contains biocides and nanofibers to filter out even the tiniest infected particles.

 **New Generation Rocket Fuel**  
Developed by Prof. Benny Natan, scientific advisor, NewRocket

Startup **NewRocket** is developing gel fuel for rocket engines that is safer and performs better than conventional liquid and solid fuels. "**PowerGel**" is also environmentally friendly.

 **Hands-Free Surgery\***  
Based on research conducted in the lab of Prof. Moshe Shoham

A surgical robotic system performs biopsies, ablations, and other procedures by inserting and steering instruments to specific locations in the body. **XACT Robotics** received FDA clearance for its unique image-based planning and navigation.

 **Bionic Hands for Children**  
Developed by Prof. Alon Wolf and Haifa 3D

Children in need of an artificial hand receive colorful, 3D-printed hands, customized with their favorite superhero. More functional than existing prosthetics, they even allow children to catch a ball.

 **Medical Holography**  
Developed by Assoc. Prof. Carmel Rotschild, co-founder, RealView Imaging

**HOLOSCOPE-i™** allows physicians to manipulate real-time, interactive, touchable three-dimensional holographs of a patient's body during minimally invasive cardiac procedures.

 **Flying Cars\***  
Developed by Rafi Yoeli M.S.'84, Ph.D. '87, founder, Urban Aeronautics

The five-passenger **CityHawk** is the first flying car prototype to take off and land on city streets, rooftops, and evacuation zones. Service as a rescue vehicle could begin in 2026.

 **Portable PCR\***  
Developed by Adam de la Zerda '05, CEO, Visby Medical

This revolutionary PCR testing platform for infections such as COVID-19 is the first to receive FDA authorization for point-of-care usage. The product has been lauded for its accuracy and speed.

Some items pictured are mock-ups/prototypes or stock images.

\*Credit company/innovator's websites.

# TECHNION ALUMNI *IN THE U.S.*

## Where Are They Now?

With thousands of graduates working in industries all over the world, it's no exaggeration to say that Technion ingenuity is in action every single day.

If you rely on a smart home device or cloud connectivity, live in an urban area, or watch "Monday Night Football," you've got Technion alums like **Omer Schneider '05; Sharon Yavo Ayalon '01, M.S. '10, Ph.D. '19; and Alon Kremer '11** to thank. These Technion graduates are making the world better, safer, and more secure in some truly remarkable ways.

### ALON KREMER '11

#### Bringing Technion Know-How to the NFL

Even during his rigorous studies as a Technion computer science undergraduate and an MBA candidate at Harvard

Business School, Alon Kremer was obsessed with sports. As an avid Maccabi Haifa sports fan, Alon's dream was to pursue his passion and launch a career in sports. When his brother, Avichai Kremer, also a Technion alumnus, was diagnosed with amyotrophic lateral sclerosis (ALS), it sparked Alon's sense of urgency to fulfill his dream.

Today, he is a senior data analyst for the NFL. As such, he supports the league's 32 teams, analyzing fans, sponsors, media, ratings, and more. He's helped the NFL understand everything from how to maximize their sponsor partnerships, to how to create a better customer experience, to how many fans can safely enter stadiums in the era of COVID-19.

Kremer said the Technion taught him to learn independently, "giving me an edge in the job market and life in general," and to approach challenges with determination. "The intense academic load and long nights at the computer labs strengthened my resilience."



### OMER SCHNEIDER '05

#### From IDF to Microsoft

Omer Schneider had built a promising career in the Israel Defense Forces. But the lure of the Start-up Nation called to him. "I started to think, 'Are you the next guy to create something extraordinary?'"

He began brainstorming ideas with his business partner, Nir Giller. They knew that businesses would be looking to drive higher efficiency and productivity in the era of cloud connectivity and Internet of Things (IoT). The biggest barrier was doing that securely.

Schneider and Giller founded CyberX in 2013 to close that gap. Within a few years, the CyberX platform was being used by three of the top 10 U.S. energy utilities and five of the top pharmaceutical companies in the world. In 2020, Microsoft acquired CyberX in a multimillion-dollar deal.

To Schneider, none of this would have been possible without his Technion education. "The Technion taught me how to set goals and accomplish them while thriving in a smart and competitive environment," he said. That drive — and a dash of Technion know-how — means companies all over the world will be safer.

### SHARON YAVO AYALON '01, M.S. '10, PH.D. '19

#### Mapping Social Impact

Can architecture and data mapping address social inequalities in cities? Sharon Yavo Ayalon believes so. An architect and a post-doctoral associate at the Joan & Irwin Jacobs Technion-Cornell Institute's Urban Tech Hub, Ayalon strives to represent socioeconomic aspects of a city that are difficult to quantify but are just as important as the number of buildings per square mile.

During her Ph.D. at the Technion, she developed a social sciences methodology to depict these abstract phenomena. "I joined the Jacobs Technion-Cornell Institute to continue to explore this approach but take it a step forward into the world of advanced technology and big data."

She is developing a "digital twin," or three-dimensional interactive model, of New York's Roosevelt Island, home of the Jacobs Institute, to predict how the privatization of affordable housing will affect the island. This helps researchers and urban planners alike understand the impact of social inequality — and the power of community resilience.

And in a COVID-19 social-distancing project, led by Professor Wendy Ju, Ayalon uses video feeds from NYC Department of Transportation cameras across the city to understand population density, business occupancy, and mask usage. She hopes this data can be used to understand urban infection patterns, informing our response to the pandemic — and future outbreaks.





**Israel's Most Valuable Resource:**

## TECHNION STUDENTS

Israel's most important national assets are its students — the next generation of visionaries and innovators who will lead the country and propel it to new heights. But students at the Technion aren't waiting until they graduate to fulfill that responsibility: They're developing award-winning breakthroughs even as they complete their coursework.

### Detecting Strokes Early

A team of students from the Technion and the University of Missouri created Scan&Sound, an application that analyzes changes in a person's voice and facial expressions to recognize early, subtle signs of stroke. The data is collected by the user's cell phone. And if symptoms are detected, the application alerts the user to seek medical help.

The team won second place at MedHacks, a hackathon for developing medical technologies hosted by Johns Hopkins University. The students now hope to partner with neurological departments and rehabilitation centers across Israel and the U.S.

### Capturing COVID-19

For the seventh time, the Technion took the gold at MIT's iGEM (International Genetically Engineered Machine) Competition in synthetic biology. The Technion team — most of whom are students in the Faculty of Biotechnology and Food Engineering — won for the concept of an active gel that can capture SARS-CoV-2, the virus that causes COVID-19.

"We knew that when it came to the COVID crisis we had to take action, not to just wait in the hope of positive developments," said Tomer Antman '21, one of the students on the team.

The gel offers two prominent advantages over current sanitization solutions. The first is its long-lasting protec-

tion: The gel works for hours. The second is that the gel is selective: It does not harm the skin microbiome or the body's cells, as it specifically targets the coronavirus.

### Battling Food Spoilage

Technion students from the Faculty of Biotechnology and Food Engineering as well as the Faculty of Biology won first prize at the European MicroBiome-Push competition for researching a challenge presented by PepsiCo: combating *Alicyclobacillus acidoterrestris* (ACB). ACB is a bacteria that affects the quality of fruit juice, causing the juice industry to lose an estimated \$32 million annually.

"Since the problem has its origins in nature — a bacterium that lives in the soil — we looked for a natural solution," explained doctoral students Alon Romano '16, M.S. '18, and Itzik Engelberg '11, M.S. '18, Ph.D. '22.

They landed on a bacteriophage that specifically attacks and destroys ACB cells. The solution is inexpensive and doesn't involve genetic engineering, which means quick relief for the juice industry. ■

**Pictured Above** / Technion students from the Faculty of Biotechnology and Food Engineering and Faculty of Biology with Prof. Yechizel Kashi (top l), Prof. Uri Lesmes (top r); (bottom center r-l) Profs. Marcelle Machluf, Yoav Livney, and Avi Shpigelman

5

## Extraordinary Years for the Andrew and Erna Viterbi Faculty of Electrical and Computer Engineering

In just five short years, his groundbreaking gift has catalyzed impressive new research projects, attracted internationally acclaimed faculty and accomplished students, and much more.

Science and innovation moves fast. Thanks to Prof. Viterbi's generous investment, the Technion can stay five steps ahead, generating the advances that the State of Israel — and our world — depend upon.



2015

In 2016, then M.S. students **Maya Barkon** and **Ester Hait-Fraenkel '14, M.Sc. '16**, and undergraduate student **Mor Shpigel Nacson '16, M.S. '19**, won the Intel Award.

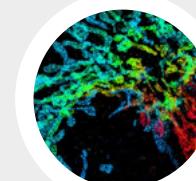
2016

2019

In 2019, **Tamar Rott Shaham '15, Ph.D. '20**, earned the Google Women Techmakers scholarship for her excellent academic performance, leadership, and impact on the community of women in tech.



2020



DeepSTORM3D, a microscope invented by **Associate Professor Tomer Michaeli** in 2020, is able to map images with a resolution 10 times that achievable through standard optical microscopy — transforming the field of biology.

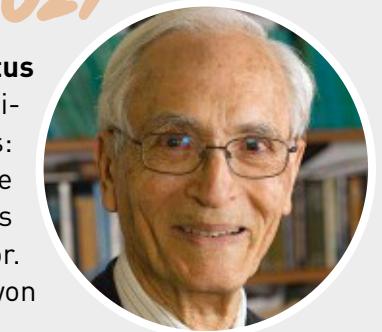
**Distinguished Visiting Professor Andrew Viterbi's** generous donation of \$50 million to the Technion Faculty of Electrical and Computer Engineering not only enhanced the Technion's position as an electrical engineering powerhouse — but it also secured Israel's place as a global leader in engineering innovation.



2017

Prof. Viterbi's gift has also enabled the Technion to build and expand needed laboratories and facilities — to stay on the leading edge of innovation. In **Assistant Professor Ido Kaminer's** Laboratory for Nanoscopic Electrodynamics (updated in the 2017–18 academic year), researchers have made a dramatic breakthrough in the field of quantum science: a quantum microscope that records the flow of light, enabling the direct observation of light trapped inside a photonic crystal. This breakthrough has numerous potential applications, including the design of new quantum materials for storing quantum bits with greater stability, and improving the sharpness of colors on the screens of electronic devices.

2021



**Distinguished Professor Emeritus Jacob Ziv** received one of science's most prestigious awards: the 2021 International Institute of Electrical and Electronics Engineers (IEEE) Medal of Honor. He is the first Israeli to have won this honor.

# HOME COMING

## Four Outstanding Faculty Return to Their Alma Mater

For newly minted Ph.D.s, choosing where to plant their academic roots can be an overwhelming decision. It shapes the direction of their research, where they live, and with whom they collaborate. The choice is also key for universities, which rely on recruiting top faculty to attract the best students.

That's why the Technion has long made faculty recruitment a priority. Donor-funded initiatives such as The First Steps Program, endowed Chairs, and the new Faculty Recruitment Fellowship Program allow the Technion to stay competitive with elite peers in the U.S.

Despite the pandemic, the Technion recruited 36 new faculty last year, including some who could not turn down the chance to return to their alma mater.



**"I've always wanted to come back to the Technion," said Prof. Fischer. "I am happy to be back, to start my own lab, and to be part of such a great institution and community."**

She started her studies at MIT before transferring to the Technion where she completed all three of her degrees. After a postdoctoral fellowship at Stanford University, the Zuckerman STEM Leadership Program supported her return by funding her laboratory.

### Arielle Fischer

After becoming a celebrity all-star tutor on campus, with undergraduates watching her videos long after graduation, **Assistant Professor Arielle Fischer '11, M.S.'13, Ph.D.'16**, joined the Technion faculty in October 2020. She is the first undergraduate alumna of the Technion's Faculty of Biomedical Engineering to return as a faculty member.

As head of the Applied Biomechanics and Wearable Technology Lab, she aims to broaden the applications of mechanical engineering concepts and technologies for patients suffering from musculoskeletal injuries and pain syndromes. Collaborating with hospitals, sports organizations, and the military, she and her team work to develop smart and user-friendly rehabilitative devices.

### Alon Grinberg Dana

Assistant Professor **Alon Grinberg Dana '10, Ph.D.'15**, was the first student enrolled in the interdisciplinary graduate studies program in the Nancy and Stephen Grand Technion Energy Program (GTEP). Today, he has come full circle, returning to the Technion and GTEP as a member of the Wolfson Department of Chemical Engineering.



**"I was filled with many burning research questions to pursue," he said. "There was only one place where I would feel truly at home and have the privilege of working with excellent people towards finding answers."**

Prof. Grinberg Dana's Fundamental and Applied Chemical Kinetics research group develops technology to predict reactive chemical systems, such as pollutant levels in alternative fuels or the shelf life of a new drug — reducing the number of experiments needed to understand a new system.

After earning his Technion degrees, Prof. Dana conducted postdoctoral research at MIT as a fellow of the Zuckerman STEM Leadership Program. His work has also received support from longtime American Technion Society supporters Dr. George Elbaum and Ed Satell.

### Ido Kaminer

Three years after joining the Technion, **Assistant Professor Ido Kaminer '07, Ph.D. '14**, won the prestigious 2021 Blavatnik Award for Young Scientists, for influencing fundamental physics research with real-world applications. The award recognized Prof. Kaminer for transforming our understanding of the quantum nature of light-matter interactions and developing technologies that could be applied to medical imaging and security scanning.

His wide-ranging work also includes: the development of an ultra-fast transmission electron microscope, research on the use of UV light to kill the coronavirus, and the Ramanujan Machine — a "conjecture generator" that creates mathematical conjectures considered the starting point for developing mathematical theorems.

**"The Technion allowed me to pursue an extremely ambitious research dream. This pursuit is now paying off and leading to important discoveries," he said.**



Prof. Kaminer heads

the Robert and Ruth

Magid Electron

Beam Quantum

Dynamics Lab-

oratory in the

Andrew and Erna

Viterbi Faculty of

Electrical and Com-

puter Engineering. He is

### Daniella Raveh

Professor **Daniella Raveh '92, Ph.D. '99**, divides her passions between research and teaching. What better place to do that than in the faculty from which she graduated?



**"The Faculty of Aerospace Engineering has always been home for me," said Prof. Raveh. "I get to work with students in different frameworks, to really know them, and to make a positive effect on their lives."**

Prof. Raveh focuses on aeroelasticity, the study of aerodynamic forces acting on flexible structures. Bringing the concept to life with her students, she guided them in designing, building, and flying a 3D-printed, "green" experimental plane. As the Faculty's undergraduate studies coordinator, she established a joint academic and

military excellence program to promote leadership in R&D departments of the Israeli Army.

After earning her Technion degrees, Prof. Raveh conducted postdoctoral studies at the Georgia Institute of Technology before returning to the Technion. She has received the Yanai Prize for Excellence in Academic Education, and her daughter is a Technion student in the class of 2022.



## A "Jewel" of an Opportunity for ASPIRING FEMALE ENGINEERS



American Technion Society (ATS) National and local board member Rosalyn (Roz) August ran a successful jewelry business at a time when and in a place where women rarely went into business. So perhaps it came as no surprise when she launched an outreach program at the Technion to support women in engineering — an area where women remain vastly underrepresented.

Created in 2015 with a name befitting to the onetime jeweler, The Rosalyn August Girls Empowerment Initiative, or GEM, exposes female high school students to opportunities offered by an education in engineering. Through GEM, Ms. August sponsors the yearly Tech Women event, where science-minded students from across Israel visit campus for inspiring activities with accomplished Technion women in academia and industry.

"I'm paying it forward, making it possible for these girls to go to the Technion and see what it's all about," said Ms. August. "Then they can become astrophysicists and go on and change the world."

Ms. August grew up in a very different world. She came from a family of retailers. Her father was in the jewelry business, and her relatives owned nearly 10 of the 50 stores in the small Virginia town where she was raised. While her friends

**I'm paying it forward, making it possible for these girls to go to the Technion and see what it's all about. Then they can become astrophysicists and go on and change the world.**

- Roz August

"I've always felt that women could do whatever they wanted to do," she said.

A longtime, generous supporter of the Technion, Ms. August has served on both the National Board and the regional leadership council for South Palm Beach. She lives in Boca Raton with her partner, Joel Goodman, and is introducing her children and grandchildren to the Technion. ■

Pictured Above / Technion students attending the 2018 Women in Tech event; Roz August [r]



# IRON DOME

## A Look at Israel's Anti-Missile Defense Technology

When sirens blared, warning of incoming rocket fire during this year's Israeli-Gaza crisis, those within a safe distance watched as rockets streamed across the sky and exploded in mid-air. The pyrotechnic display was Israel's missile defense system, Iron Dome, doing its job.

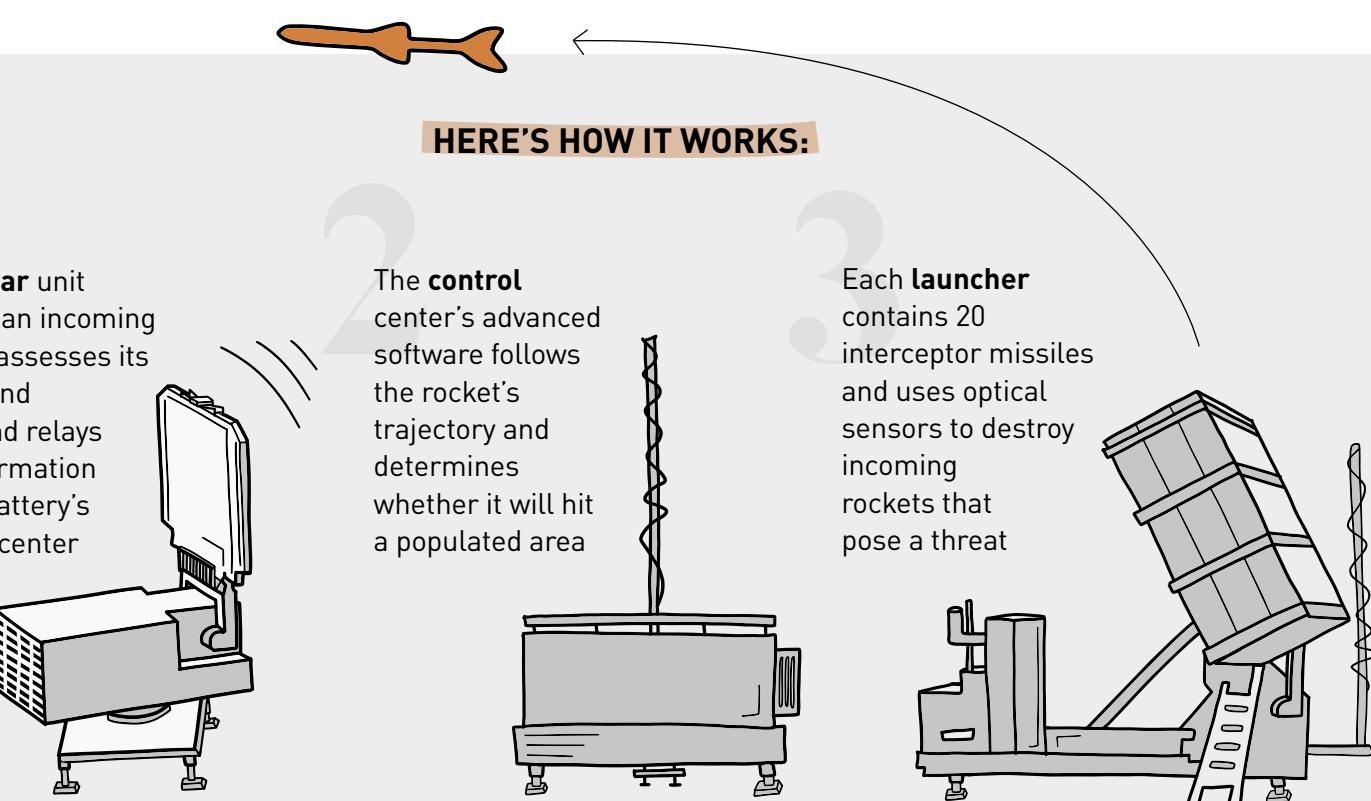
In the 11 days of fighting prior to the May 21, 2021, cease-fire, Hamas militants launched 4,369 rockets from Gaza towards Israel.

Nearly two-thirds missed their mark or malfunctioned, but Israelis still had to contend with some 1,500 rockets headed towards densely populated cities, including Tel Aviv. Astonishingly, Israel intercepted and destroyed 90% of them — thanks to Iron Dome.

Developed at Rafael Advanced Defense Systems by a team comprised mainly of Technion graduates, Iron Dome is able to locate a threat

up to 45 miles away, assess its damage potential, and knock it down within 15 seconds. Moreover, its components are mobile and can be moved where needed.

The U.S. reportedly purchased two Iron Dome systems last year. And Israel is improving the current technology to combat threats posed by unmanned drones. Iron Dome has saved countless lives and property since its introduction in 2011. ■



# A HUGE, HUGE OPPORTUNITY

**Technion Professor and Security Insider  
Brigadier General (Res.) Jacob Nagel  
Assesses the Historic Abraham Accords**

In September 2020, Israel, the U.S., the United Arab Emirates (UAE), and Bahrain signed the Abraham Accords, normalizing relations between Israel and the two Arab nations. Morocco and Sudan soon followed suit. ATS writer Jennifer Frey discussed the implications of the Accords with Visiting Professor Brigadier General (Res.) Jacob Nagel, who served as Head of Israel's National Security Council and Prime Minister Benjamin Netanyahu's Acting National Security Advisor just prior to joining the Technion in May 2017. He now heads the Technion's Advanced Defense Research Institute, home to the Center for Security Science and Technology (CSST) and the Peter Munk Research Institute.

**JF: How did this historic agreement come about?**

**JN:** You cannot sign a peace agreement like this after just five minutes of work. You have to build it on long-lasting relationships and mutual respect. Making such an agreement always hinges on a win-win situation, and in this case, it was a win-win-win with the U.S. becoming a major ingredient in this complex achievement. So why now? The moderate Sunni countries came to understand we have a common enemy in Iran. That, together with the technological and economic benefits Israel brings to the table as a very important high-tech nation in civilian and defense technologies, made the timing right.

**What impact will the agreement have on Israel's economy, tech exports, and higher education?**

This is a huge, huge opportunity to work with our new neighbors. It will be good for the spirit and atmosphere in our chaotic region, as well as the economy of all participants. They are looking to Israel and want our cooperation in sharing and developing technology, AI, agriculture, cybersecurity —

almost everything. Israel is among the leading entrepreneurial countries, the "Start-up Nation," and the Technion plays a huge part in powering the high-tech sector. The Emiratis can learn from our long experience, and there are things we can learn from them. It's important to note that the UAE already has good technologies on their own.

Regarding higher education: Maybe the Technion will see some joint research, but I don't anticipate many students coming from the Arab countries in the beginning, because of the language barrier. But this could change in the future. I can anticipate Hebrew language institutes opening in the UAE to teach Hebrew to those in business and academia, and the same with Arabic language schools in Israel. Of course, everyone is welcome; they would enhance the academic and technological collaboration.

**Can you elaborate on collaboration in cybersecurity, and traditional defense?**

Collaboration in cybersecurity is certainly possible, especially for protection. But there are things you can share with

your good friends, and there are areas that have to be kept to yourself. They want to share, and I think it will happen. The same is true for traditional defense technologies. I think there will be security cooperation between Israel and the Gulf countries against regional threats in areas allowed by the authorities on both sides. Some areas are non-classified, and some are a little bit more classified. But we have a common threat in facing the possibility of a nuclear Iran, so I hope we will be able to work together to prevent it.

**In light of the Israeli-Gaza conflict in May, what's next for the Abraham Accords and peace in the region?**

I hope the conflict in Gaza will not dramatically change the relations with the moderate Sunnis, for sure those who signed an agreement already. They entered the process because of their interests, which didn't change significantly because of the confrontation in Gaza. It is going to be slower, for sure, and rebuilding Gaza under Israel's terms will be another source for tensions, but also for cooperation. The crown jewel for the next agreement should be the Saudis, but this is going to be very difficult because of internal politics, and the change in the U.S., towards Iran. If the Saudis will come, they will really make an impact, because they can send a clear message to the region that things are changing.

**On a completely different note, can you highlight some of the most exciting research in the CSST?**

We're working on technologies to counter some underground threats in the southern and northern parts of

Israel. We now have new solutions on the borders but threats from tunnels will continue, so we are planning on new innovations in this area. Secondly, we're working on new image-processing technologies and electronic systems to improve our visual intelligence of hovering drones, unmanned aerial vehicles, planes, and our satellites. We're enhancing and miniaturizing our navigation systems. And lastly, we're continuing our research in developing quieter surveillance drones, while also working on technology to counter hostile drones in our urban and civilian areas, together with solutions for our borders.

**One last question: As Israel is a part of the global space race, could you comment on the significance of the Technion's work in space exploration?**

Israel is a world leader in space technology, both in LEO (low-Earth-orbit) launch capability and in minisatellite systems. Israel is using its assets in military and civilian areas, and as the **only institute in Israel with an aerospace faculty**, the Technion plays an important role in educating the scientists and engineers to build those technologies. The Technion just recently returned to space by launching a constellation of three nanosatellites. There is no doubt that space will be important in our future, and the Technion will always be part of this goal. ▀

**Pictured Below /** Visiting Professor Brigadier General (Res.) Jacob Nagel during a security event at the Technion





Joan &amp; Irwin Jacobs Technion-Cornell Institute

## CELEBRATING 10 YEARS

A decade after the Technion and Cornell University won an ambitious bid to build Cornell Tech, home of the Joan & Irwin Jacobs Technion-Cornell Institute, philanthropist, former ATS board member, and Jacobs Technion-Cornell Institute Steering Committee member **Mitch Julis** sat down with **Professor Ron Brachman**, Jacobs Institute director, to talk about accomplishments and what lies ahead.

### **Mitch Julis: Is the Institute helping NYC become a tech city, as was originally envisioned?**

**Ron Brachman:** Definitely. Cornell Tech and the Jacobs Institute are growing the tech workforce and adding entrepreneurial energy to the city. Nearly 70 Jacobs' master's students are graduating each year, receiving degrees from both the Technion and Cornell University. Our Runway Startup Postdoc Program has created more than 30 new companies, with almost 200 employees and over \$100 million in external investment. Each year we add to these totals. We are still small, but we think that we are having an outsized effect for our numbers.

### **Can you tell us about the Runway Startup Program?**

Runway aims to transform recent Ph.D. graduates with an entrepreneurial passion into successful startup CEOs. We start with the basics and build their understanding of creating and running a company, including the challenges of identifying customers and raising funding. Runway focuses on "deep tech" companies, where a technologically advanced but inexperienced entrepreneur comes in with a product idea based on significant scientific work. Through our program director, Fernando Gómez-Baquero, we have made numerous contacts with high-tech incubators, investors, and entrepreneurs across NYC.

### **What have been some of Jacobs' proudest moments?**

Runway continues to create exciting startups, such as Nanit (smart baby monitor), which was named one of *Time* magazine's 50 best inventions of 2018. Other accomplishments

include our outstanding success in hiring excellent faculty and staff. As of July 2021, we will have 11 faculty members, including six women.

We've also established the Urban Tech Hub — a master's degree concentration we hope will revolutionize urban tech studies. In one core course, students focused on pandemic recovery to design approaches to reopening schools, shops, and workplaces. As a sign of the importance of our efforts, we recently received a \$15 million gift to support the hub from Stephen Ross, chairman and founder of Related Companies.

### **What's next?**

CornellTech moved into its spectacular Roosevelt Island campus right on schedule, in 2017. In addition to the Bloomberg Center — its academic building — the Tata Innovation Center, and The House, two new buildings are just opening. Phase-two brainstorming is underway, and academic space, including labs, will be the top priority.

In time, we expect to grow Cornell Tech's faculty to 200 and the student body to nearly 2,000, with Jacobs representing one-third of those numbers. Our innovative hubs turn out graduates who are a step ahead in media, health technology, and urban tech. We want to continue building these existing hubs, but new hubs could include Fintech, cybersecurity, and design.

We keep experimenting, looking for novel ways to prepare students for the job market. It seems we break new ground every day. Because of our approach, the Jacobs Institute and our graduates are major drivers of leading-edge activities for the Technion, Cornell, and New York City. ■

## A Legacy to Support Technion Faculty and Students in Perpetuity

**Dr. Eric Albin recounts in this first-person piece why he chose to support Technion in his estate plans.**



Some time ago, I read that hedge fund manager John Paulson had gifted Harvard University's engineering school the fantastic sum of \$400 million. My thought was, and is, that the Harvard endowment fund has more than \$40 billion, so Paulson's gift, though very generous, would make absolutely no difference in the world. It was then that I began my personal search as to where my financial support would provide the most good for the world, for this and future generations.

Technion - Israel Institute of Technology graduates have a long history of innovations that have made this world a better place for all of humanity. My special interest is in the research the Technion performs in both the basic and applied sciences as well as medicine. Technion graduates, students, and faculty have consistently expanded the world's knowledge base, and their applied innovations have been a benefit to our planet and all of humanity.

Thus, I have found my place. My contributions are truly making a real and very positive impact on the health and well-being of people around the world and for generations to come.

I decided to start my philanthropy at the American Technion Society (ATS) with yearly gift annuities, which provide me with a guaranteed high fixed income for life as well as a sizable charitable income tax deduction. A few years later, I decided to designate the ATS as the beneficiary of my IRA at my death. By doing this, the ATS gets 100 cents on each dollar from my IRA without any tax consequences to my estate. Most importantly, my bequest will create a legacy to support Technion faculty and students in perpetuity. ■

**Pictured Above /** Dr. Eric Albin is an avid skier and also a mountain biker

### Contact Us

Planning your estate and legacy for future generations, including your charitable interests, takes careful evaluation.

**Judy Sager, Executive Director of Planned Giving**  
[judy@ats.org](mailto:judy@ats.org) / 781.531.0441



# LIVE FROM TECHNION

Webinars With Technion Experts

**Live From Technion: Webinars With Technion Experts** is a series designed to help inform and inspire our community. Hear about the great research coming out of the Technion, strengthening Israel, and changing the world.

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