



Technion Fund Report

Fiscal Year 2022

Oct. 1, 2021 – Sept. 30, 2022



AMERICAN
TECHNION
SOCIETY

Thank you for your generous support of the Technion Fund.

Today, more than ever, Technion innovation is essential to meet the rapidly changing needs of science, medicine, and society. The Technion Fund gives the University the flexibility to do just that.

When the Technion enrolled its first students in 1924, no one could have fathomed the impact it would have on Israel's economic development and global scientific advancement. As the Technion approaches its Centennial, your support will continue to nurture the next generation of exceptional scientific leadership.



Meet Fellow Technion Fund Donors **Naomi and Jon Newman**

The daughter of Holocaust survivors from Vienna and the Czech Republic, Naomi Newman and her husband, Jon, prioritize support of the Technion to shape Israel's future. Naomi is active as president of ATS – Seattle and as a member of the ATS National Board, and she and Jon have made

the American Technion Society their top philanthropic endeavor. Their support has included important contributions to the Allen & Jewel Prince Center for Neurodegenerative Disorders along with ongoing support of the Technion Fund to meet the overall needs of the University.

“Support for the Technion is an investment that strengthens Israel and benefits the world. Innovations coming from its labs and alumni are shaping the future of technology, medicine, and more. We hope others will derive as much inspiration from the Technion's achievements as our family does.”

– Naomi Newman



BAREQET HADAD

Technion **students** are impressive, diverse, and accomplished. The University's graduate students and even its undergraduates are already creating novel technologies and tackling some of the greatest challenges of the 21st Century. Your gifts to the Technion Fund help nourish students with extracurricular activities, tutoring and mentorship programs, and competitions that provide opportunities to excel.

- Technion students were lauded at the prestigious iGEM synthetic biology competition for their research using bacteria to reduce hair loss caused by chemotherapy. They aim to create a substance that could be added to haircare products.
- Bareqet Hadad grew up ultra-Orthodox and was expected to become a teacher. The Technion helped her earn an engineering degree – often with her third child in her arms – and become a model for her community.
- While strolling on the beach, Ph.D. candidate Yaniv Shlosberg noticed a rock covered with seaweed resembling electrical cords. He used the ah-hah moment to develop an eco-friendly method of harvesting electricity from seaweed.

Biomedicine



PROF. ROY KISHONY

The Technion is uniquely equipped to meet the complex medical and healthcare challenges of the 21st century. The newly launched **Technion Human Health Initiative (THHI)** capitalizes on the University's expertise in the physical sciences, data analytics, engineering, and a dedicated medical school to spur multidisciplinary research that touches lives everywhere. Your contributions to the Technion Fund help to support these initiatives and their potentially life-changing biomedical innovations.

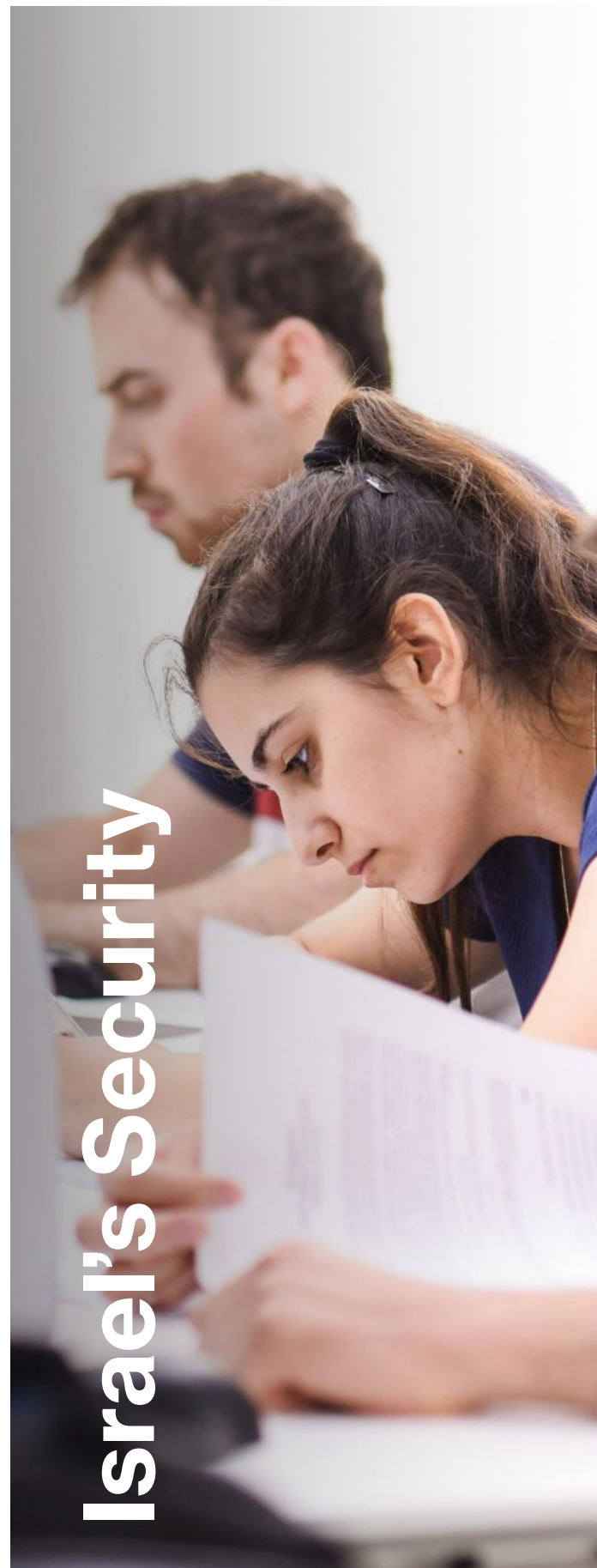
- Professor Arie Admon and Ph.D. student Sofia Khazan-Kost discovered that proteins

found in a patient's lung fluid could be used to diagnose lung cancer.

- Technion researchers developed a unique technology using light to remotely control the cell's internal stores of calcium. It could regulate the body's immune system, head off disease, and control the sensation of pain.
- A new algorithm developed by Professor Roy Kishony could help doctors select more effective, personalized antibiotic treatments for patients by taking into account clinical guidelines and other criteria.

The Technion has long helped ensure the **safety of Israel** on the ground, in the air, and increasingly – in cyberspace. Cyber sabotage can disrupt many aspects of a nation's vital infrastructure, from power plants to hospitals. Fortunately, researchers from many disciplines are developing technologies to make the world a safer place.

- Neta Blum '14, M.S. '18, and Ph.D. '22 was named among the *Jerusalem Post's* 50 Most Influential Jews of 2022. The Technion alumna heads the Cyber Section of Israel's Defense Ministry's Directorate of R&D.
- Computer science researchers intentionally “hacked” into a Siemens control system, among the most secure in the world. The attack allowed Siemens to close security gaps in the system that is used in transportation, power stations, and factories.
- Alumnus Zohar Halachmi '96 co-founded D-Fend Solutions to thwart suspicious drones by taking over their navigation systems. It is already in use to protect airports, stadiums, and VIPs, and detected a rogue drone during an open-air mass led by Pope Francis.



TECHNION STUDENT DURING THE CS HACK EVENT ON CAMPUS

Faculty



PROF. EMERITUS MOUSSA YODIM

Technion **faculty** have made important breakthroughs and discoveries and received numerous prestigious awards over the past year, solidifying the University's status as a leading global research institution. Your generosity helps the Technion hire new top-tier faculty members and maintain its academic edge.

- Four female early-career Technion researchers received European Research Council starting grants, recognizing the great promise they have and the strides they are making in their respective fields. The recipients are Assistant Professors Ofra Amir, Naama Geva-Zatorsky, Noga Ron-Harel, and Inbal Talgam-Cohen.
- Assistant Professors Volodymyr Kuleshov and Emma Pierson from the Jacobs Technion-Cornell Institute won National Science Foundation Awards for their research in genome sequencing and reducing healthcare bias, respectively.
- Three Technion Professors Emeritus were awarded the prestigious Israel Prize for their contributions to their fields and to society. Prof. Moussa Youdim won in Life Science, Prof. Yoram Palti won the Prize for Entrepreneurship and Technological Innovation, and Prof. Joshua Zak won for Physics and Chemistry Research.

Food scarcity, water quality, and energy provision are some of the biggest challenges facing the world in the 21st century. Visionary research in the new Carasso FoodTech Innovation Center, the soon-to-be-launched **Stewart and Lynda Resnick Sustainability Center for Catalysis**, and other Technion labs and centers makes possible the critical breakthroughs that will bring about solutions. Your contributions to the Technion Fund help support sustainability-focused projects that have global impact.

- Technion students won top prizes at the European Institute of Innovation &

Technology Food Solutions Project for their creative innovations in various vegan, high-protein, and low-sugar treats that used environmentally-friendly packaging.

- Professor Adi Radian and postdoctoral researcher Samapti Kundu developed an efficient technology for eliminating pollutants from drinking water.
- Technion researchers created a proof-of-concept for a rechargeable silicon battery that reversibly discharges and charges the silicon, making it a green source that could pave the way toward enhanced battery technologies.

STUDENTS FROM THE FACULTY OF BIOTECHNOLOGY & FOOD ENGINEERING

Sustainability



Who knew that one day we'd have a baseball cap with air streaming from its visor to shield wearers from our modern-day plague, COVID-19? That's exactly what Professors Moshe Shoham and David Greenblatt devised, following in the footsteps of numerous Technion scientists who have **invented technologies and products for the good of mankind**. And this past year, the Technion established the Mehoudar Center for Inventors to provide the resources, mentorship, and makerspace that are key to innovation.

- BreezoMeter was recently acquired by Google for more than \$200 million. Co-founded by alumni Ran Korber '10, Ziv Lautman '12, and Emil Fisher '09, the AI-driven technology provides real-time air monitoring of pollen levels, pollution, and fires.
- Extending an existing partnership, Pfizer invested another \$20 million in Professor Shai Shen-Orr's CytoReason to expand the pharma company's drug development programs.
- Professor Marcelle Machluf launched Meatafora to grow meat from animal cells on edible, plant-based scaffolds in an affordable and sustainable process without harm to animals.



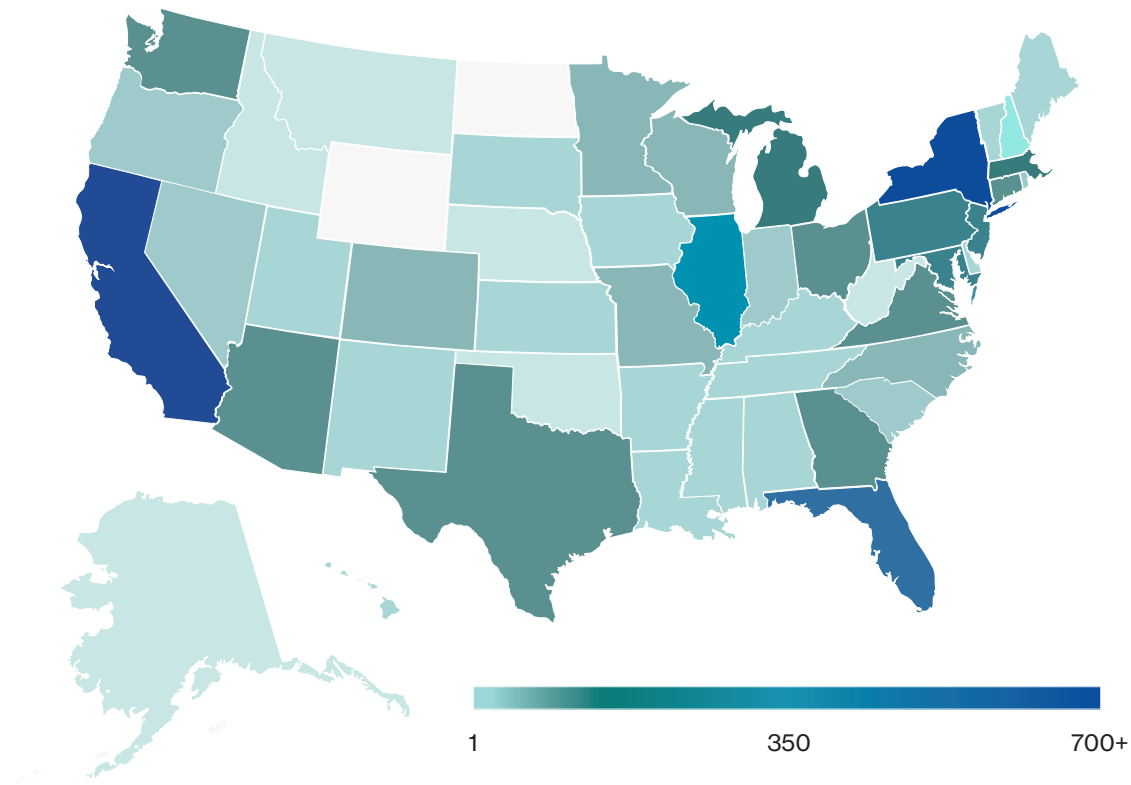
Entrepreneurship & Innovation



PROF. MARCELLE MACHLUF AT THE 2022 FALL ATS NATIONAL BOARD OF DIRECTORS MEETING

By the Numbers

Technion Donors by State



Greater Payments to You. Larger Impact for the Technion.

How a Charitable Gift Annuity Works

You can fund a charitable gift annuity at the American Technion Society with a minimum gift of \$20,000. The annuity can be funded with either cash or stock. In turn, you will receive fixed income payments for life at attractive rates that can supplement your retirement income.

Hoping to get greater income in retirement? Now might be the perfect time to consider an ATS Charitable Gift Annuity. **Effective January 1, the annuity and deferred annuity rate have gone up.**

ATS will provide fixed payments for life at attractive rates that just got better. You can also receive an immediate income tax deduction, significant partial tax-free income, and capital gains tax savings. The remainder of your gift will support the future of the Technion.

Best of all, your gift will ultimately support Technion's students, faculty, and research.

To learn more about charitable gift annuities, contact Judy Sager, Executive Director of Planned Giving, at judy@ats.org or 781.531.0441.

ats.plannedgiving.org

Technion People

14,996

Number of students for the 2021-2022 academic year

11,043

Undergraduate Students

2,633

Graduate Students

1,320

Doctoral Students

582

Academic faculty for the 2021-2022 academic year

222

Professors

193

Associate Professors

152

Assistant Professors

15

Lecturers/Other



DISTINGUISHED PROF. ILAN MAREK, SCHULICH FACULTY OF CHEMISTRY AND CHAIR OF THE SOON-TO-BE-LAUNCHED STEWART AND LYNDY RESNICK SUSTAINABILITY CENTER FOR CATALYSIS

From Visionary Education to a World of Impact

The American Technion Society supports visionary education and world-changing impact through the Technion - Israel Institute of Technology. Based in New York City, we represent thousands of U.S. donors, alumni, and stakeholders who invest in the Technion's growth and innovation to advance critical research and technologies that serve the State of Israel and the global good. For more than 80 years, our nationwide supporter network has funded Technion scholarships, research, labs, and facilities that have helped deliver world-changing contributions and extend Technion education to campuses in three countries.

Visit ats.org/our-impact to learn more about the latest Technion breakthroughs.



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