KALANIYOT

Dartmouth Kalaniyot Newsletter

Volume 1, Number 2 | June 05, 2026

Our mission is to advance academic excellence by deepening ties with Israeli scholars and building a supportive campus community.



Message from the Directors

Dear Friends,

Welcome to the second issue of the Dartmouth Kalaniyot newsletter. Since launching our inaugural edition earlier this year, Dartmouth Kalaniyot has continued to expand its role as a catalyst for academic collaboration and scholarly exchange between Dartmouth and Israeli institutions. We were delighted to be able to share our progress just last month with the Dartmouth Jewish Alumni Group.

This issue reflects the remarkable momentum of our growing community. We are excited to share the outcomes of our **Spring 2026 Collaborative Funding Awards**, which supported eight new interdisciplinary research partnerships spanning fields from neuroscience and microbiology to archaeology, mathematics, and environmental science. The breadth of participation across Dartmouth departments and Israeli universities underscores the strength and vitality of these collaborations.

We are also pleased to announce the newest recipient of the **Kalaniyot Kesher Grant**, **Professor Tor Wager**, whose upcoming visit to Hebrew University will help foster new connections in psychology, neuroscience, and neuroimaging research.

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A major highlight of this edition is the arrival of our **Visiting Scholars** and **Fall 2026 Kalaniyot Postdoctoral Fellows**. Their work represents the interdisciplinary spirit at the heart of Kalaniyot, with research initiatives spanning artificial intelligence and robotics, ecological networks, planetary geomorphology, cognitive neuroscience, and astrophysics. We are thrilled to welcome these scholars to Dartmouth and look forward to the collaborations and discoveries their work will inspire.

We are equally proud to celebrate **Kalaniyot's first supported published works**, marking an important milestone for the program and reflecting the growing impact of the research partnerships we are helping to build.

Finally, we continue to be encouraged by the engagement of our broader academic community through the **Kalaniyot Lunch and Learn Series**. These conversations have helped strengthen connections across disciplines and institutions, and we look forward to continuing them in the coming academic year.

Dartmouth Kalaniyot remains a faculty-led, strictly apolitical initiative dedicated to advancing research partnerships, fostering scholarly exchange, and building enduring academic connections between Dartmouth and Israeli institutions. We are deeply grateful to the faculty, students, researchers, and supporters who make this work possible. With your help, Dartmouth is becoming known across the country and even around the world as a model for collaborative engagement with the Israeli academy.

Best wishes,

Dan Rockmore, Director
Jeremy Manning, Associate Director

Donors' Corner

We would like to recognize with gratitude those who have given to Dartmouth Kalaniyot. We can't sustain this high level of activity without your help — thank you! In particular, we would like to thank the **Harvey Grable '58 Trust** for their founding and continuing support.

We would like to recognize the **Robert Lemelson Foundation** for a generous grant that is providing matching funds to support two Collaborative Ventures proposals relevant to anthropology. We would also like to thank **Amanda ('93)** and **Michael ('84) Salzhauer (P'24, '27)**, **Nancy and Josh ('90) Korff (P'27, '29)**, and **Joie Jager-Hyman ('00) and Josh Zizmor** for their continuing support. Additionally, there have been a number of donors who wish to remain anonymous. Thanks to all.

Giving online is now easy and can be done at this link. Once again, thanks to all who have been able to help. We know that there are many deserving targets for philanthropy, and we appreciate being considered among them.

Announcements



Tel Aviv in summer

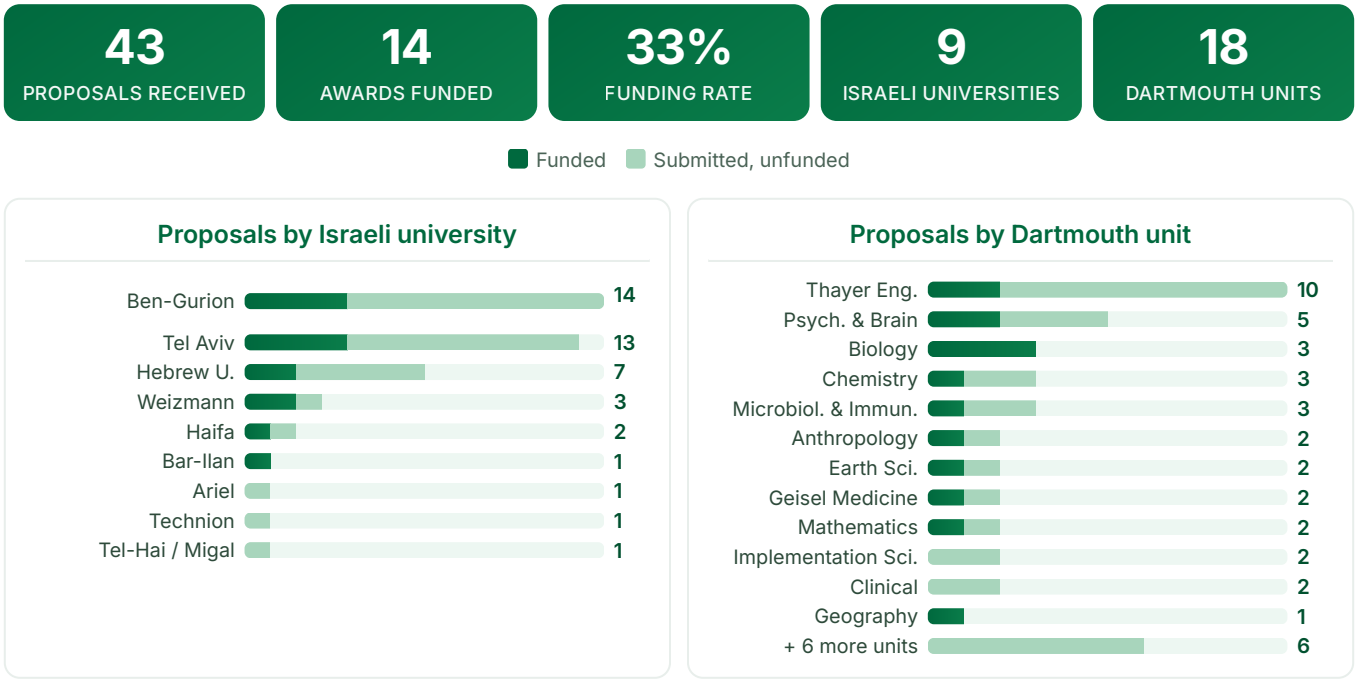
Welcome to Our Newest DKS Advisory Board Members

We are delighted to welcome Prof. Mark McPeek (David T. McLaughlin Distinguished Professor of Biological Sciences) and Prof. Marnie Halpern (Andrew Thomson, Jr., MD 1946 Professor; Chair, Department of Molecular and Systems Biology) to the **Dartmouth-Kalaniyot in the Sciences (DKS) Advisory Board**. Both bring distinguished records of scientific leadership and broad expertise in the life sciences, and we look forward to their guidance on DKS programming and strategy.

From Connection to Collaboration: Dartmouth–Israel Research Momentum Accelerates

Dartmouth Kalaniyot's Collaborative Ventures program is quickly becoming a catalyst for new global research partnerships. This year alone, the initiative received 43 proposals, funding 14 collaborative projects across 18 Dartmouth academic units and 9 Israeli universities — a remarkable sign of growing engagement.

The graphic below highlights the expanding reach and impact of these collaborations. Together, they show how Dartmouth faculty and Israeli scholars are building new interdisciplinary connections, launching first-time partnerships, and creating a durable bridge for future research, innovation, and academic exchange.



Dartmouth Kalaniyot Collaborative Ventures, by the numbers (2025–2026)

Spring 2026 Collaborative Funding Awards

We are pleased to announce the recipients of the Kalaniyot Spring 2026 Collaborative Funding Awards. This funding cycle highlighted the strength of interdisciplinary and international research partnerships between Dartmouth and Israeli institutions.

Competition Overview

- **Total proposals submitted:** 35
- **Awards funded:** 8
- **Total funding requested:** $1.8 million
- **Total funding awarded:** $388,000
  - Dartmouth-Kalaniyot contribution: $298,000
  - Tel Aviv University contribution: $20,000
  - Ben-Gurion University contribution: $50,000
  - Hebrew University contribution: $20,000
- The competition included participation from 12 Dartmouth units and 8 Israeli institutions, reflecting the breadth and vitality of collaborative research across the partnership.

Funded Projects



Benjamin Ross
Dartmouth



Asaf Levy
Hebrew University

Deciphering the Rules of Engagement for Gut Bacterial Colonization

This project investigates how bacteria in the human gut compete and survive by studying the interactions between harmful bacterial toxins and protective immunity proteins. Using machine learning and bioinformatics, the team will predict which proteins work together and test those predictions in bacteria such as Bacteroides fragilis and E. coli, with the goal of mapping the hidden "battle network" between gut bacteria and improving our understanding of gut health, probiotics, and infection.



Tor D. Wager
Dartmouth



Lital Cohen-Blum
Ben-Gurion University



Or Duek
Ben-Gurion University

Neural and Psychological Mechanisms of Pain Reprocessing Therapy for Chronic Pain Relief

This project will examine how Pain Reprocessing Therapy (PRT) reduces chronic pain by studying people with long-term neck or back pain, comparing full PRT — which combines psychoeducation and body-based techniques — with a modified version without the body-based techniques, and usual care. Using MRI brain scans, EEG, and wearable devices, the team will track changes in brain activity, heart rate, sleep, and behavior, with the goal of identifying how psychological and neural mechanisms work together to relieve chronic pain.



Olga Zhaxybayeva
Dartmouth



Uri Gophna
Tel Aviv University

Searching for Gene Transfer Agents and Extracellular Vesicles in High-Salinity Environments

This project investigates how bacteria and archaea exchange genetic material in extreme high-salt environments by studying gene transfer agents and extracellular vesicles — two poorly understood systems that move DNA and RNA between microbial cells. Focusing on hypersaline habitats such as Dead Sea sinkholes and coastal salt ponds, the team will use DNA sequencing, microscopy, and bioinformatics to identify and examine the contents of these particles in environmental samples, and link the particles to their host organisms. The project will help explain how microbial life evolves and adapts to changing environmental conditions.



Amanda Amodeo
Dartmouth



Eran Meshorer
Hebrew University

Deciphering Specific Functions of Histone Variants H3.3A and H3.3B in Mouse and Fly

This project investigates how two genes, H3.3A and H3.3B, which encode the same histone protein, differentially regulate genome organization and gene activity. Using advanced genetic engineering in mouse stem cells and fruit fly embryos, the team will rapidly remove each protein and study its immediate effects on chromatin structure, gene expression, and development, aiming to uncover how cells maintain genome stability and to inform research on epigenetics, stem cell biology, and diseases linked to chromatin dysfunction, including cancer.



Margaret Ackerman
Dartmouth



Biana Bernshtein
Tel Aviv University

Discovering Pathways of Tolerance in Mucosal Tissues

This project investigates how the immune system protects the body at mucosal surfaces, focusing on IgA — an antibody that defends against harmful bacteria and viruses while maintaining balance with healthy microbes. The team will build laboratory models that mimic the intestinal environment to examine how immune cells respond to IgA-coated pathogens such as Shigella and Poliovirus, aiming to identify protective immune pathways and improve tools for vaccine research against intestinal infections that affect millions worldwide.



Eric Schaller
Dartmouth



Dan Mishmar
Ben-Gurion University

Investigating the Regulatory Interactions between the Mitochondria, Chloroplast, and Nucleus under Environmental Challenges

This project examines how the mitochondria, chloroplast, and nucleus coordinate their gene expression to allow plants to respond to environmental stress. By studying the regulatory interactions between these three genomes, the team aims to reveal fundamental mechanisms by which plants adapt and maintain function under challenging conditions.



Jesse Casana
Dartmouth



Emmanuel Nantet
University of Haifa



Michael Lazar
University of Haifa

Bridging Marine Archaeology and Geophysics: New Approaches to Ancient Mediterranean Harbor Systems

This project combines marine archaeology with advanced geophysical technology to better understand ancient Mediterranean harbor systems. Using remote sensing tools such as sonar, drones, and radar, the team will study ancient ports in diverse settings such as France, Italy, and Greece — detecting underwater and buried features that are difficult to see with traditional methods, and helping reconstruct ancient coastal environments and reveal how harbors functioned as complete systems.



Sergi Elizalde
Dartmouth



Yuval Roichman
Bar-Ilan University



Ron Adin
Bar-Ilan University

Positivity Problems for Permutations

Positivity problems involve proving that certain mathematical quantities are positive integers, and they arise frequently in algebraic combinatorics and representation theory. One way to prove positivity is by describing specific combinatorial objects that are counted by these numbers. This research explores positivity problems that originate in the study of symmetric functions, with the goal of better understanding the structure of permutations, binary trees, and lattice paths.

We congratulate all award recipients and thank every applicant for contributing innovative proposals that advance collaborative scholarship and deepen academic partnerships between Dartmouth and Israeli institutions.

Kesher Grant Award

The Kesher Program is pleased to announce that **Professor Tor Wager (Department of Psychological and Brain Sciences)** has been selected to receive a Kalaniyot Kesher Grant. The Kesher Grants pilot program awards $5,000 to support a one-week visit to Israel aimed at fostering new scientific collaborations with Israeli institutions and researchers.

Professor Wager's grant will support an interdisciplinary visit to Hebrew University of Jerusalem in February 2027, bringing together researchers across psychology, neuroscience, pain research, and neuroimaging. Planned activities include lectures, collaborative meetings, and trainee engagement focused on emotion, pain and placebo, beliefs and expectations, and neuroimaging methods.

Click to learn more about Kesher Grants

Kalaniyot's First Supported Published Works

Kalaniyot is proud to celebrate its first supported published works, marking an exciting milestone for our community of scholars and researchers.

Congratulations to our contributors on their 2026 conference publications:

- Shmuel, A., Greenspoon, L., Mankin, J., & Milo, R. (2026). The daily timing of a given temperature has shifted by over an hour since 1980 (No. EGU26-16985). Copernicus Meetings.
- Shmuel, A., Gottlieb, A., & Mankin, J. (2026). Regional acceleration of climate change (No. EMS2026-543). Copernicus Meetings.

These works reflect Kalaniyot's commitment to advancing impactful, interdisciplinary climate research and supporting emerging voices in the scientific community. We look forward to many more achievements ahead.

Kalaniyot on Campus

Visiting Scholars in the Sciences | Summer 2026

Dr. Ofer Hadar

School of Electrical and Computer Engineering, Ben-Gurion University of the Negev



Professor Ofer Hadar joins Dartmouth as a visiting scholar bringing internationally recognized expertise in multimodal AI, computer vision, and adversarially robust perception systems. His research focuses on developing trustworthy AI-driven robotics that can interpret visual scenes, understand natural-language commands, and navigate complex environments safely and reliably.

Working alongside **Professors Peter Chin and Bryce Ferguson** at the **Thayer School of Engineering**, Prof. Hadar will help lead a collaborative project using Dartmouth's Boston Dynamics Spot robot to explore how vision-language models can improve robotic reasoning and interaction in real-world settings. The research will also investigate defenses against adversarial visual attacks — such as deceptive "cyber patches" designed to confuse AI systems — while integrating reinforcement learning and advanced control methods to create more resilient autonomous robots.

As the collaboration develops, the research direction may continue to evolve within the broader areas of AI and robotics. Additional areas of exploration may include efficient video communication and compression between the robot and cloud-based AI systems, particularly under real-world bandwidth and latency constraints.

This collaboration advances Dartmouth's growing leadership in embodied AI, robotics, and trustworthy machine learning, while creating new opportunities for student engagement, interdisciplinary research, and future partnerships.

Dr. Shai Pilosof

Department of Life Sciences, Ben-Gurion University of the Negev



We are delighted to welcome **Professor Shai Pilosof** as a visiting scholar to the **Department of Mathematics at Dartmouth College** this summer and fall. During his sabbatical visit, Professor Pilosof will collaborate with **Professor Peter Mucha** on developing new predictive frameworks for ecological interaction networks, such as host–parasite and plant–pollinator systems.

Their work will explore how diverse sources of ecological information — such as species traits, evolutionary history, environmental context, and network structure — can be integrated using advanced statistical and network-based approaches. A major focus of the collaboration will be the development of multi-modal predictive models capable of improving ecological prediction across systems.

Dr. Alon Shepon

The Steinhardt Museum of Natural History and the Department of Public Policy, Tel Aviv University



Dartmouth College is pleased to welcome **Professor Alon Shepon** from Tel Aviv University as a visiting scholar during the summer of 2026.

Professor Shepon's research focuses on sustainable food systems, agriculture, nutrition, and environmental policy. More specifically, his research examines the complex relationships between food production, human nutrition, environmental impacts, and public policy, with the goal of identifying pathways toward more sustainable and equitable food systems. By integrating approaches from environmental science, public policy, and quantitative modeling, his work addresses some of the most pressing challenges at the intersection of food security, climate change, and agricultural sustainability.

A central objective of the visit will be to develop new collaborative research initiatives that connect expertise across disciplines and explore innovative approaches to sustainable agriculture and food-system transformation. These efforts will help build long-term partnerships between researchers at Dartmouth and institutions in Israel while advancing research on the environmental and social dimensions of food production and consumption.

Throughout his stay, Professor Shepon will interact with faculty and students through campus activities and informal discussions, contributing to Dartmouth's community of researchers working on sustainability and food system challenges.

Dr. Shahar Arzy

Director, Computational Neuropsychiatry Lab, Hebrew University; Lead Neurologist, Neuropsychiatry Clinic, Hadassah Medical Center



Professor Shahar Arzy joins Dartmouth as a visiting scholar this summer. As Director of the Computational Neuropsychiatry Lab at Hebrew University and lead neurologist at the Neuropsychiatry Clinic at Hadassah Medical Center, Professor Arzy bridges clinical neurology and computational cognitive neuroscience, studying how the brain represents self, memory, and meaning under both healthy and disordered conditions.

His visit will foster cross-disciplinary collaboration with Dartmouth researchers in psychological and brain sciences, neurology, and cognitive science, with a particular emphasis on ecologically valid behavioral paradigms and the neural underpinnings of life significance and personal meaning.

Kalaniyot Postdoctoral Fellows | Fall 2026

We are pleased to announce the arrival of the Fall 2026 Kalaniyot Postdoctoral Fellows, an outstanding cohort of early-career scholars whose innovative research spans planetary science, neuroscience, and astrophysics. Working alongside Dartmouth faculty mentors, these fellows will contribute to cutting-edge scholarship and interdisciplinary collaboration across campus.

Dr. Elhanan Harel

Mentor: Dr. Marisa Palucis (Earth and Planetary Sciences)



Dr. Elhanan Harel joins Dartmouth from Ben-Gurion University of the Negev, where he earned his PhD in Earth and Environmental Sciences. His research integrates geospatial analysis, modeling, and fieldwork to investigate the evolution of drainage networks and sediment transport systems, from mountainous headwaters to deep marine environments.

At Dartmouth, Dr. Harel will work within the planetary geomorphology group led by Dr. Marisa Palucis, focusing on Martian drainage systems. His research combines field observations with quantitative geomorphic analysis to better understand the fluvial processes that shaped planetary landscapes and influenced the geological history of Mars.

Dr. Gabriel Braun

Mentor: Dr. Emily Finn (Psychological and Brain Sciences)



Dr. Gabriel Braun is completing his PhD in neuroscience at Tel Aviv University. His interdisciplinary research explores how people process and represent truth, trust, and commitment in communication, drawing on cognitive neuroscience, psychology, linguistics, and computational modeling.

Using behavioral experiments, naturalistic narratives, and language models, Dr. Braun investigates how the processing of truth influences the ways individuals and their brains respond to information and misinformation. As a Kalaniyot Postdoctoral Fellow, he will continue this work at Dartmouth in collaboration with Dr. Emily Finn.

Dr. Tamar Simhon Kravtzov

Mentor: Dr. Robert Caldwell (Physics and Astronomy)



Dr. Tamar Simhon Kravtzov joins Dartmouth to collaborate with Dr. Robert Caldwell on research at the frontiers of astrophysics. She earned her PhD in Physics with a dissertation centered on the "frozen star" model, a singularity-free alternative to traditional black holes.

Her current research seeks to test the frozen star model using gravitational waves, investigating whether gravitational wave "echoes" could provide a distinctive observational signature separating frozen stars from standard black holes. The project will also simulate extreme collisions between frozen stars to better understand how exotic internal matter behaves under immense pressure and radiates energy.

This pioneering work aims to translate theoretical predictions into observational targets that may guide future discoveries with the upcoming LISA Space Telescope mission in the coming decade.

The Kalaniyot Postdoctoral Fellowship program reflects Dartmouth's commitment to advancing innovative research and fostering global academic partnerships. The College looks forward to welcoming these exceptional scholars to campus and supporting their contributions to the Dartmouth research community.

Upcoming Events

Lunch and Learn Series

Join us for our year-round program featuring research presentations by faculty at Israeli universities. Lunches are **Mondays, 12:00 PM – 1:00 PM** in **Haldeman 252**.

Summer 2026 Events

Stay tuned for upcoming summer Lunch and Learn lectures and events. We look forward to announcing the next series of conversations and presentations in the coming weeks. If you would like to be added to our events mailing list, please email us at kalaniyot.dartmouth@gmail.com.

Previous Events

Date	Speaker	Topic
May 20, 2026	Prof. Shahar Arzy (Hebrew University)	What Makes a Life Significant? Ecologically Valid Behavior and Brain Evidence
April 15, 2026	Dr. Mor Nitzan (Hebrew University)	Decoding Layers of Spatial and Temporal Organization in Multicellular Systems
February 9, 2026	Prof. Ariel Goldstein (Hebrew University)	Exploring High-Level Cognition through Large Language Models
January 26, 2026	Prof. Derya Akkaynak (University of Haifa)	Underwater Image Color Reconstruction: Challenges and Opportunities
November 10, 2025	Dr. Assaf Shmuel (Weizmann/IIASA)	Machine Learning-based Perspectives on Climate Change

Leadership

Faculty Board

- David Feller-Kopman
- Cecilia Gaposhkin
- Michael Herron
- Susannah Heschel
- Prasad Jayanti
- Adam Kleinbaum
- Jane Lipson
- Jeremy Manning (founding member)
- Mark McPeek
- Daryl Press
- Dan Rockmore (founding member)
- Helene Seroussi

DKS Advisory Board

- Dan Rockmore (Director)
- Jeremy Manning (Associate Director)
- David Feller-Kopman
- Marnie Halpern
- Michael Herron
- Prasad Jayanti
- Jane Lipson
- Mark McPeek
- Helene Seroussi



The Kalaniyot Foundation serves as an umbrella organization for chapters focusing on local community building and strengthening ties with Israeli research institutions.

Contact: kalaniyot.dartmouth@gmail.com

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The Kalaniyot Foundation is the umbrella organization for Kalaniyot-affiliated universities supporting faculty-led initiatives focusing on building stronger local campus communities and deepening ties with Israeli researchers.

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