



**HADASSAH
UNIVERSITY
MEDICAL
CENTER**

Founded by Hadassah, the Women's Zionist Organization of America



קרן מחקרים על ידי הסתדרות מדיצינית
הדסה (ע"ר), ע.ר. 580166387
Research Fund of the Hadassah
Medical Organization (R.A) R.A. 580166387



RESEARCH, DEVELOPMENT **AND INNOVATION** AT HADASSAH

**Annual Digital
Newsletter
2025**

In 2025, Hadassah Medical Center, via the Research, Development and Innovation Division, together with the Research Fund, garnered extraordinary achievements and successes.

We are pleased and proud to present the main impressive results, the fruits of our researchers' and physicians' hard work.

As part of its support and encouragement of research, RFHMO allocated approximately NIS 7.675 million in support of research, development, and innovation in 2025.

Hadassah physicians and researchers published approximately **1,003** scientific papers in leading international journals in 2025.

Here are the top five high-impact publications:

1

Efficacy and Safety of Anti-B-Cell Maturation Antigen Chimeric Antigen Receptor T-Cell for the Treatment of Relapsed and Refractory AL Amyloidosis

Lebel E, Asherie N, Kfir-Erenfeld S, Grisariu S, Avni B, Elias S, Assayag M, Dubnikov-Sharon T, Pick M, Alexander-Shani R, Bessig N, Herr S, Shehadeh A, Ishtay A, Pimienta S, Vainstein V, Zimran E, Cohen Y, Avivi I, Cohen C, Stepensky P, Gatt ME. J Clin Oncol. 2025 Jun 10;43(17):2007-2016.

Impact Factor = 43.4

<https://pubmed.ncbi.nlm.nih.gov/39653116/>



2

RORc-expressing immune cells negatively regulate tertiary lymphoid structure formation and support their pro-tumorigenic functions.

Cinnamon E, **Stein I**, Zino E, Rabinovich S, **Shovman Y**, Schlesinger Y, Salame TM, Reich-Zeliger S, Albrecht T, Roessler S, Schirmacher P, **Lotem M**, Ben-Neria Y, Parnas O, **Pikarsky E.** Journal of Hepatology, 2025 Jun;82(6):1050-1067. doi: 10.1016/j.jhep.2024.12.015

Impact Factor = 33.0

[https://www.journal-of-hepatology.eu/article/S0168-8278\(24\)02769-7/fulltext](https://www.journal-of-hepatology.eu/article/S0168-8278(24)02769-7/fulltext)



3

Empirical and targeted antimicrobial therapy in patients with febrile neutropenia and haematological malignancy or after haematopoietic cell transplantation: recommendations from the 10th European Conference on Infections in Leukaemia.

Averbuch D, Vanbiervliet Y, Baccelli F, Mikulska M, Neofytos D, Garcia-Vidal C, Aguilar-Guisado M, Blijlevens N, Munoz P, Cordonnier C, Akova M, Calandra T. Lancet Infect Dis. 2025 Nov 25:S1473-3099

Impact Factor = 31

<https://pubmed.ncbi.nlm.nih.gov/41314221/>



4

Lessons derived from a 3-year congenital cytomegalovirus screening programme in Israel: a prospective population-based cohort study.

Friedman SE, Shlomai NO, Oiknine-Djian E, Sido T, Gordon O, Greenberger S, Horowitz H, Merav L, Mehaber SD, Caplan O, Geal-Dor M, Simanovsky N, Averbuch D, Kunzweiler C, Hefter Y, Diaz-Decaro J, Paltiel O, Yassour M, Wolf DG.

Lancet Infect Dis. 2026 Apr;26(4):384-393. doi: 10.1016/S1473-3099(25)00620-6. Epub 2025 Dec 10. PMID: 41389804

Impact Factor = 29.4

[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(25\)00620-6/abstract?rss=yes](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(25)00620-6/abstract?rss=yes)



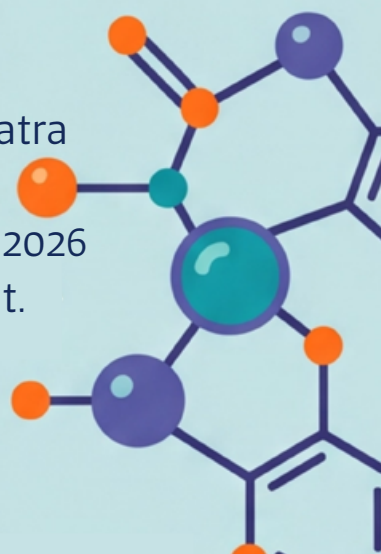
5

Psoriatic dactylitis: the association with HLA genetic susceptibility markers

Kharouf F, Abarza VC, Mehta P, Gao S, Ganatra D, Pereira D, Cook RJ, Poddubnyy D, Gladman DD, Chandran V. Ann Rheum Dis. 2026 Mar 5:S0003-4967(26) Online ahead of print.

Impact Factor = 20.6

<https://www.sciencedirect.com/science/article/pii/S0003496726000865>



INTERNATIONAL RESEARCH GRANTS

The European Union

The Horizon Program

In 2025, 2 Hadassah researchers received European Union research grants out of the 5 that were awarded to all Israeli hospitals in the Horizon Europe program.

EU New Awards	2024	2025
Hadassah	5	2
Other hospitals	5	3
Total	10	5

The 2 studies joined Hadassah’s 7 active Horizon grants. This is a **record number of 9 active grants** of the Horizon Europe program in 2025 compared with previous years.

Nine Active Grants in 2025:

- ITN: Prof. Michal Lotem, TOP
- Horizon: Prof. Michal Lotem, CANCERNA
- Horizon: Prof. Ronen Leker, VALIDATE
- Horizon: Prof. Dror Sharon, BETTER
- Horizon: Prof. Vernon Van Heerden, EPIC
- Horizon: Prof. Rachel Katz-Brull, RESPONSE
- Horizon: Prof. Rachel Katz-Brull, DDG-MRI
- Horizon: Prof. Mordechai Muszkat, AHEAD (NEW)
- Horizon: Prof. Rachel Katz-Brull, HOP-ON (NEW)

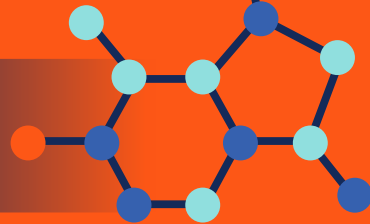
Congratulations to the winning projects:

Prof. Rachel Katz-Brull, Imaging
Horizon Europe: “HOP-ON For Cancer Detection - A Novel Medical Imaging Approach that Correlates to FDG-PET without Ionizing Radiation”

Prof. Mordechai Muszkat, Internal Medicine
Horizon AHEAD: “AI for Health: Evaluation of Applications & Datasets”



The Era-Net Program



Six Era-Net Active Grants:

Prof. Shai Rosenberg

Prof. Adi Vaknin Dembinsky

Prof. Ran Nir-Paz

Prof. Donna Zfat-Zwas

Dr. Aviad Zick

Dr. Joseph Lerner

Hadassah had a total of 15 active EU research grants in 2025:

Year	2023	2024	2025
Hadassah's total EU active grants	14	14	15

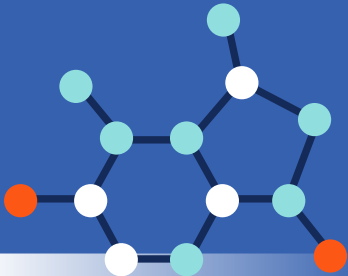
International Grant Applications

Hadassah researchers submitted **48** new international research proposals to organizations, including the European Union, the United States Armed Forces, National Institutes of Health, and the ICRF.

➤ For more information on applying, please contact Dr. Hadas Lemberg at hadasl@hadassah.org.il



ISRAEL RESEARCH GRANTS



The Israel Science Foundation (ISF)

The following are the Israel Science Foundation programs in which Hadassah researchers received grants in 2025:

- Personal Track in The Fields of Life Sciences and Medicine
- MAVRI Biomedical Research Grant Track for funding large-scale biomedical research in subjects that relate directly to human medicine
- MAVRI Startup Track for physician-researchers in hospitals for establishing and operating research laboratories
- MAVRI Post-Doctorate Research Scholarship Track for physicians
- Joint DFG-ISF Research Grant

ISF Program 2025	Hadassah	Other Hospitals	Total
MAVRI - Biomedical research	5 (33.3%)	10	15
MAVRI - Postdoctoral grant for physician-scientists	1 (100%)	-	1
Personal grant	3 (42.8%)	4	7
MAVRI startup	3 (one grant won without funding) (42.8%)	4	7
Joint DFG-ISF research grant	1 (33.3%)	2	3
Total	13 (39.3%)	20	33

The Personal Track in the Fields of Life Sciences and Medicine

Hadassah received 3 of the 7 grants that were awarded to hospitals in Israel in the fields of life sciences and medicine.

Congratulations to the recipients of the ISF personal Track program for 2025:

- Prof. Benjamin Glazer, Endocrinology

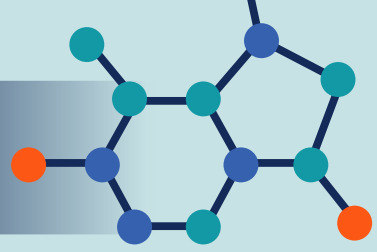
“Consequences of Glucose-induced Increased Aldolase B Expression in Pancreatic Beta Cells”
- Dr. Amit Lotan, Psychiatry

“Leveraging Desorption Electrospray Ionization Mass Spectrometry Imaging to Develop Novel Therapeutic Approaches for Brain Disorders”
- Dr. Noa Ofek Shlomai, Neonatology

“Antibiotic resistance in the gut microbiome of preterm infants and its implication on infant growth and overall health”



The MAVRI Program



The ISF announced the launch of the new MAVRI program in 2023.

The program's goals are: To lead a profound change in the scope and culture of biomedical research in Israel; to strengthen high-quality research; to encourage and nurture collaborations between researchers and physicians of different institutions; and to establish the status of physician-researchers in Israeli hospitals. The goals also include increasing the number of physician-researchers in Israel and supporting their ability to build careers that combine clinical work and in-depth research in the biomedical field.

The program has three funding tracks:

A A biomedical research grant track for funding large scale biomedical research in subjects that relate directly to human medicine.

In 2025, Hadassah received 5 of the 15 grants that were awarded to hospitals in Israel.

Congratulations to the recipients of the Biomedical Research Grant Track program for 2025:

Prof. Gil Leibowitz, Endocrinology

"Understanding Metabolic-epigenetic crosstalk in islet inflammation and β -cell dysfunction in diabetes"

Prof. Yael Houri-Haddad, Dentistry; **Dr. Rinat Tzach Nachman**, Dentistry; and **Prof. Adi Vaknin Dembinsky**, Neurology

"Effect of Dental Implants on Brain Health"

Prof. Lior Katz, Gastroenterology

"Exploring the role of alternative splicing in regulating neutrophil function in ulcerative colitis"

Prof. Avivit Cahn, Internal Medicine

"Decoding mechanisms and translational prospects of microbiome-mediated modulators of weight and cardiometabolic disease"

Prof. Itay Chowers, Ophthalmology

"A novel multidisciplinary approach to uncover genetic causes and pathophysiologic pathways that affect individual predisposition for AMD"



B A startup track for physician-researchers in hospitals for establishing and operating research laboratories:

In 2025, Hadassah received 3 of the 7 grants awarded to hospitals in Israel.

Congratulations to the recipients of The Startup Track for physician-researchers in hospitals program for 2025:

Dr. Oded Volovelsky, Pediatrics

"Peptidyl-Prolyl cis/trans-Isomerase Pin1 as a Potential Target in Tuberous Sclerosis Complex Kidney Disease"

Dr. Oren Gordon, Pediatrics

"Targeting Staphylococcus aureus Metabolic Perturbations to Treat Persistent Implant-Associated Infection"

Dr. Shlomo Elias, Bone Marrow Transplantation

"Innovative immunotherapy approaches targeting the NKp46 Receptor" (won without funding)



C Post-doctorate research scholarship track for physicians:

In 2025, Hadassah received the only grant that was awarded to hospitals in Israel.

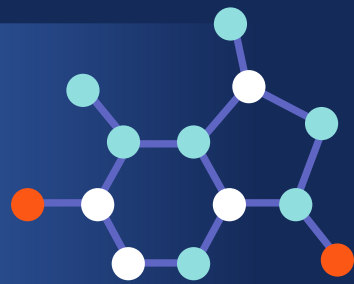
Congratulations to the recipient of the Post-Doctorate Research Scholarship Track for physicians program for 2025:

Dr. Adva Cahen-Peretz, Obstetrics and Gynecology

"Transplacental Immunity: From Basic Biology to Clinical Implications"



The Planning and Budgeting Committee's program to promote the recruitment of physician-scientists by Israel's state-funded research universities



In 2025, Hadassah received 3 of the 5 (60%) grants awarded to hospitals in Israel.

Congratulations to the recipients of The Planning and Budgeting Committee program to promote the recruitment of physician-scientists program for 2025:

Prof. Chamutal Gur, Rheumatology

"Integrating single-cell multi-omics and novel CAR-T modalities for treatment of incurable autoimmune rheumatic diseases"

Dr. Shlomo Elias, Bone Marrow Transplantation

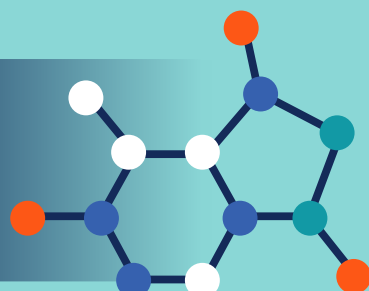
"Biological functions of regulatory T cells and develops innovative approaches to enhance immunotherapies based on regulatory T cells and natural killer (NK) cells"

Dr. Nir Pillar, Pathology

"Label-Free, Virtual Staining and classification of Systemic Amyloidosis"



Ministry of Innovation, Science and Technology



Within the framework of the 2025 work plan, the Ministry of Innovation, Science and Technology operated to advance applied research activities in academia and research institutes within national priority areas. This initiative was aimed at leading to the establishment of startup companies and the technological and scientific advancement of existing companies.



The main areas of this call for proposals included Health and Medicine, Bio-convergence, and Engineering and Advanced Technologies.

Congratulations to the recipients of The Health and Medicine Program for 2025:

Prof. David Leibowitz, Cardiology

"The association between the gut microbiome and cardiac structure and function in the elderly: a prospective echocardiographic study"

Prof. Batia Avni, Bone Marrow Transplantation

"Epigenetic liquid biopsy for detection of acute Graft versus Host Disease"

Dr. Amit Lotan, Psychiatry (**two grants**)

"Iron chelation for acute mania in treatment-resistant bipolar disorder: MRI guided clinical trial for repurposing deferiprone and N-Acetyl Cysteine"

And "Desorption Electrospray Ionization Mass Spectrometry Imaging-Assisted Design of Novel Therapeutic Strategies for Acute Mania"

Dr. Hadas Nachmani, Physical Therapy

"To determine the minimal effective dose of perturbation training on reactive balance reactions in post-stroke patients"

Dr. Amit Shalev, Child and Adolescent Psychiatry

"Smartphone-based Ecological Momentary Intervention for the Prevention of Suicidal Thoughts and Behavior in Adolescents"

Prof. Shraga Nahum Goldberg, Radiology

"Biodegradable Fiducial Marker for Mammography"



Congratulations to the recipient of the Engineering and Advanced Technologies Program for 2025:

Prof. Esi Sharon, Prosthodontics

"Forensic dental identification model of cadavers: innovative radiographic supervised embedding"



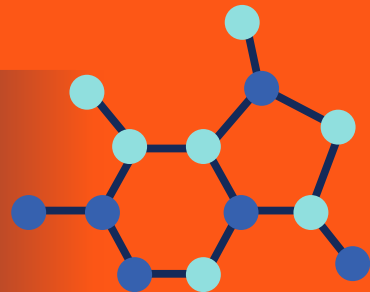
Congratulations to the recipient of The Israel-Germany (DKFZ) Program for 2025:

Dr. Jonathan Arnon, Oncology

"The Role of CD4 T Cells in KRAS Mutated Solid Tumors Towards T Cell Receptor Gene Therapy"



The U.S - Israel Binational Science Foundation (BSF)



The BSF Research Grants Program is funding American and Israeli scientists who wish to collaborate on research projects that address topics in basic science.

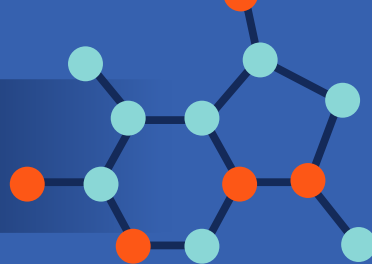
A record number of **25** proposals were submitted by Hadassah researchers. The results will be published in 2026.



For more information on applying, please contact Ms. Michal Agai at michalag@hadassah.org.il



The Ofek Program



The **Hadassah-Ofek** Program for Excellence locates, guides, supports, and promotes the next generation of physician-scientists of the first rank, who possess the potential to conduct medical research and management at **Hadassah**. The program has completed its sixth year.

The Ofek Program for Excellence offers researchers the following: allocation of “protected time” for research, a structured mentoring framework for professional guidance, an onboarding framework, and research grants of up to NIS 850,000. To date, 13 researchers have participated in the program (6 Years).

Congratulations to the 2025 recipients:

Dr. Oded Shamriz, Allergy and Clinical Immunology
“Deciphering the Metabolic Pathways Involved in STAT1 Gain-of-Function: A Novel Immuno-metabolic Approach with Therapeutic Potential”

Dr. Fares Darawshy, Pulmonology
“The Effects of Lung Dysbiosis on Lung Cancer Progression via Neutrophils' Phenotype Modification”



The 2021-2024 Recipients:

Dr. Oren Gordon, Pediatrics

Dr. Tal Falick Michaeli, Oncology

Dr. Joshua Stokar, Internal Medicine

Dr. Joshua Moss, Oncology

Dr. Nir Pilar, Pathology

Dr. Benjamin Stern, Ophthalmology

Dr. Dean Nachman, Cardiology



Prof. Ofer Beharier, **Dr. Samer Khateb**,
Dr. Liron Birimberg-Schwartz, and
Dr. Shlomo Elias completed the program successfully.



For more information on applying, please contact
Ms. Michal Agai at michalag@hadassah.org.il



The Bridging Fund



The Bridging Fund, an internal initiative, is aimed at promoting the submission of applications for research grants from external foundations. It provides financial support to researchers who are applying for competitive individual research grants until they receive responses from these external foundations.

This year, the Bridging Fund Committee evaluated 13 research proposals submitted to the Israel Science Foundation (ISF) and Israel Binational Science Foundation (BSF).

Congratulations to the grant recipients for 2025:

Dr. Yael Horev, Dentistry
“Dissecting Immunometabolic Pathways in Experimental Periodontitis”

Dr. Gabriel Mizraji, Dentistry
“Elucidating the Role of Opsonized Titanium Particles and Inflammasome Activation in the Pathogenesis of Peri-Implantitis”

Dr. Tal Benoliel, Neurology
“Functional Network Signatures in Temporal Lobe Epilepsy: Mechanistic Insights for Targeted Neuromodulation”

Dr. Gal Aviel, Cardiothoracic Surgery
“Myocardial protection in cardiac surgery: from patient to bench and from bench to patient”

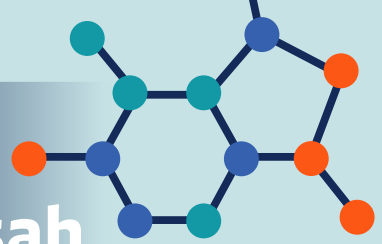
Prof. Maya Korem, Clinical Microbiology and Infectious Diseases
“Cross-kingdom interactions between Candida and Streptococcus species and their effect on biofilm characteristics and susceptibility to the cannabinoid Anandamide”



 For more information on applying, please contact Ms. Michal Agai at michalag@hadassah.org.il



Support Mechanisms for Researchers at Hadassah



In 2023, three new support mechanisms were established to assist physicians and researchers at Hadassah that offer three distinct tracks of assistance. These initiatives aim to provide initial support to interns and young researchers and, by so doing, increase the visibility of Hadassah researchers' contributions to global scientific research within the Israeli and international research communities.

The programs are as follows:

- **The Exposure Fund:** Assists in covering the costs of publication in scientific journals, including Open Access
- **The Data Fund:** Assists in covering the costs associated with data-analysis services
- **The Content Processing and Editing Fund:** Assists in covering the costs of editing services for scientific papers and competitive grants applications



A call for applications is issued once per quarter.



For more information on applying, please contact Ms. Michal Agai at michalag@hadassah.org.il



Hadassah's support for research, development, and innovation is expected to be more than NIS 8.72 million in 2026.

The JumpStart Fund/The Science Acceleration Program



Hadasit, Hadassah's innovation and entrepreneurship company, and the RFHMO, invites physicians and researchers to submit proposals for applied/translational research funding under the Hadassah 2026 JumpStart Program.

The program, which is in its third year, is designed to accelerate the translation of innovative clinical and scientific ideas into viable healthcare solutions. Selected projects will benefit from staged funding; professional, scientific, and technology development support; and direct connections to the healthcare innovation ecosystem.

Hadassah JumpStart supports the development of innovative healthcare technologies, including medical devices (primarily), AI solutions, diagnostics, and novel bio-therapeutic approaches (including bio-convergence). The program provides milestone-based funding, professional guidance, and access to relevant stakeholders for projects selected through a competitive evaluation process.



Congratulations to the recipients of the Hadassah JumpStart program for 2025:

Prof. Asher Shushan, Gynecology

"SafePlacenta: automatic real-time in-situ placenta deficiency inspection after childbirth"

Dr. Michael Halpert, Ophthalmology

"TOMI LASECAT: The next generation cataract surgery"

Prof. Yakir Rotenberg, Oncology

"Mitigating lower limb fluid overload using breathable and electric heated sheets"

Dr. Amir Haze, Orthopedics

"The effect of amelogenin-hyaluronic acid-Fmoc-diphenylalanine-based hydrogel on healing of osteoarthritis in a rat model"

Dr. Sharon Merims, Oncology

"Topical Prevention of MEK Inhibitor-Induced Skin Toxicities by Blocking Drug-Enzyme Interactions in skin"

Dr. Michael Levit, Dental Medicine

"Prototype construction, optimization and evaluation of a patient-customized intraoral cold plasma device for treatment of peri-implantitis"

Dr. Jonathan Cohen, Oncology

"Preclinical Development of pSL6 peptide for Ulcerative Colitis"

Prof. Samer Khateb, Ophthalmology

"Development of prophylactic selective treatment for the epithelial-mesenchymal transition of retinal pigment epithelium causing proliferative vitreoretinopathy (PVR)"

Dr. Shiri Klein, Oncology

"Expanding the NY-ESO-1 TCR Repertoire to Target Multiple HLA Alleles"

Prof. Ofer Amir, Cardiology

"Flexible Microneedles Based Sensor for Non-Invasive Central Venous Pressure Monitoring of Congestive Heart Failure Patients"

Dr. Yotam Kolben, Cardiology

"Fully Implantable Bioimpedance-Based Electromechanical Sensor for Continuous Real-Time Left Atrial Pressure Monitoring for Heart Failure Patients Requiring no Patient Involvement."

Dr. Dean Nachman, Cardiology

"Regulation of Natriuretic Peptide Secretion by Mechanical Stimulation of the Atrial Appendage for Heart Failure Management"

Prof. Rabea Asleh, Cardiology

"Adaptive Wearable Belt Increasing Intrathoracic Pressure with Adjustable Pressure and Timing Capabilities for Personalized Treatment in Heart Failure Patients"

Prof. Shahar Frenkel, Ophthalmology

"A Novel Tumor-Specific Immunotherapy"



For more information and the application forms, visit - **www.hadasit.org.il/jumpstart**



For more information, contact Nadav Askari (**nadavask@hadassah.org.il**)
or Ariel Shrem (**ashrem@hadassah.org.il**)

IRB (Helsinki) Committee



Hadassah’s Helsinki committee reviews and approves clinical research involving human participants. Its role is to ensure adherence to ethical standards and to review the study protocols.

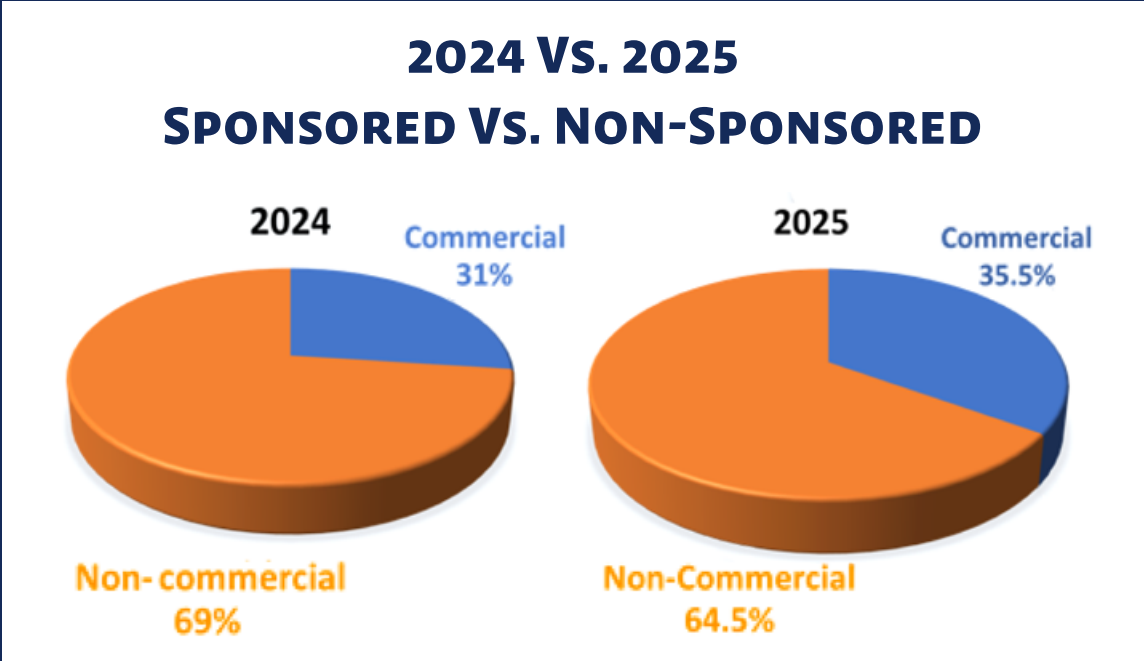
During 2025:

1,974
active clinical trials

464
new clinical trial submissions

	2024	2025
Total number of active studies	1929	1974
Total number of studies submitted to the committee	431	464
Total number of approved studies	406	401
Number of IRB meetings	49	54

Number of studies submitted to the Helsinki Committee, 2025



Data & AI at Hadassah



In 2025, the Data & AI Unit achieved extraordinary successes in establishing advanced technological infrastructures for clinical research. The unit, which worked alongside Hadassah's leading researchers, transformed complex medical data into strategic assets, driving the Smart Hospital vision and accelerating precision medicine.

National Research Grants & Funding

The Israel Innovation Authority (IIA) Grants: In 2025, the unit secured substantial support from the IIA to establish and expand national medical data infrastructures.

- **Accessible Unique Medical Data in the AI Era:** This strategic project, which was approved in December 2025, was awarded NIS 3,732,181 for its initial 18-month period out of an approved R&D budget of NIS 5,654,820 (total requested three-year budget: NIS 9,954,000).
- **Infrastructure for Data-Based Collaborations (Year 2):** This project expands the hospital's Secure Virtual Research Environment (VRE), integrates advanced NLP, and pioneers a national Trust Layer for synthetic data. Approved budget: NIS 1,917,880 (May 2024-April 2025).

The National Institute for Health Policy Research (NIHP)

Urgent Psychiatric Consultations Following Suicidal Attempts or Ideation Among Children in Israel After the October 7 Terror Attack with Dr. Saar Hashavya and the Pediatric Emergency Services: Approved in June 2025, this nationwide multi-center study spans approximately ten Israeli hospitals.

Innovation and Data Infrastructure



cBioPortal & Virtual Research Environments:

The unit established a local cBioPortal to normalize hospital data into international standards. The unit is also developing a Virtual Research Environment (VRE) and integrating MDClone to facilitate secure, privacy-preserving access to synthetic datasets for research and industry collaborations.



Real-Time Clinical AI & Command Centers:

The unit engineered the data infrastructure and operational dashboard for a dynamic cesarean section risk assessment tool (the underlying predictive model was developed by Dr. Yishai Sompolsky). The system, which integrates over 200 parameters, updates risk probabilities every 15 minutes. The unit also deployed operational command centers that were used during national emergencies, which integrate over 30 systems to monitor hospital-wide bed occupancy, OR availability, and patient flow.

Advancing Scientific Research

In support of Hadassah's ranking as the #1 hospital in Israel for scientific output (Nature Index), the unit provided data extraction and analytical support for **137 active clinical studies** conducted by Hadassah researchers and biopharma companies in 2025.

National Recognition: IT Excellence Awards 2025

The unit won 2 IT Awards for Excellence from People and Computers:

- **Digital Transformation:** Awarded for the Oncology Data Mart and cBioPortal platform
- **AI Revolution:** Awarded for the delivery room real-time decision support infrastructure

Global Quality Accreditation

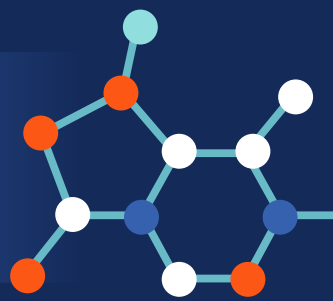
The unit developed the statistical framework for Patient-Reported Outcome Measures (PROMs). These metrics were a decisive factor in Hadassah's ranking in Newsweek's World's Best Smart Hospitals.



For more information on applying, please contact Ms. Dorit Tzur at doritzur@hadassah.org.il



The Wohl Institute for Translational Medicine



Modern medical research is becoming greatly dependent on the availability of advanced multi-modal imaging technologies. The mission of the Wohl Institute for Translational Medicine at Hadassah is to establish a center for innovative preclinical research that promotes studies designed to elucidate unsolved human diseases and the development of new therapies for the benefit of all.

The institute is designed as a modern research hub that accommodates biological laboratories, sophisticated imaging services, computers for big data and image analyses, and rooms for researchers and students.

Since 2020, we have collaborated with 50 research groups on several preclinical topics including orthopedics, cardiology, neurology, oncology, metabolic syndrome, liver pathologies, diabetes, inflammation kidney disease, and aging.

The Wohl Institute's cutting-edge imaging equipment provides a platform to carry out many frontline scientific studies at the Hadassah Medical Center.

Applicability to a variety of biomedical research fields:

Cancer, stem cells, orthopedics, angiogenesis and vascularization, neurobiology, brain research, and cardiac research, among others.

Top-notch equipment:

- PET/CT
- PET/MRI
- Photoacoustic LAZAR-X ultrasound
- Two cyclotrons enabling synthesis of short living isotopes for PET usage
- Optical imaging
- Hypoxic chambers
- Micro-CT



Head of the Institute: **Prof. Rinat Abramovitch**



For more information, please contact
talibe@hadassah.org.il or visit our website
at **<https://wohl-hadassah.org>**



The Hadassah Organoid Center: Modeling Human Disease to Improve Patient Care



Established in 2020, the Center, a leading hub for patient-derived 3D organoid technology, advances biomedical research and precision medicine.

Its multidisciplinary team develops organoid models from diverse human tissues and applies cutting-edge molecular profiling, automated drug screening, and high-content imaging to study disease mechanisms and therapeutic responses.

The Center, which is also strongly committed to knowledge transfer, offers hands-on training to local and international researchers, clinicians, and biotechnology professionals, alongside a premier training initiative at the Marine Biological Laboratory (MBL) in Boston.

The Center has established a biobank that contains organoids derived from over 450 patients of diverse ethnic and genetic backgrounds. The collection includes both healthy and diseased tissues from the nasal epithelium, esophagus, lung, breast, stomach, intestine, pancreas, endometrium, ovary, and skin. These patient-derived models support personalized medicine for cystic fibrosis and cancer, drug discovery for endometriosis and inflammatory bowel diseases, regenerative medicine, and research into human tissue development, rare genetic skin and retinal diseases, aging, and host-microbe interactions.

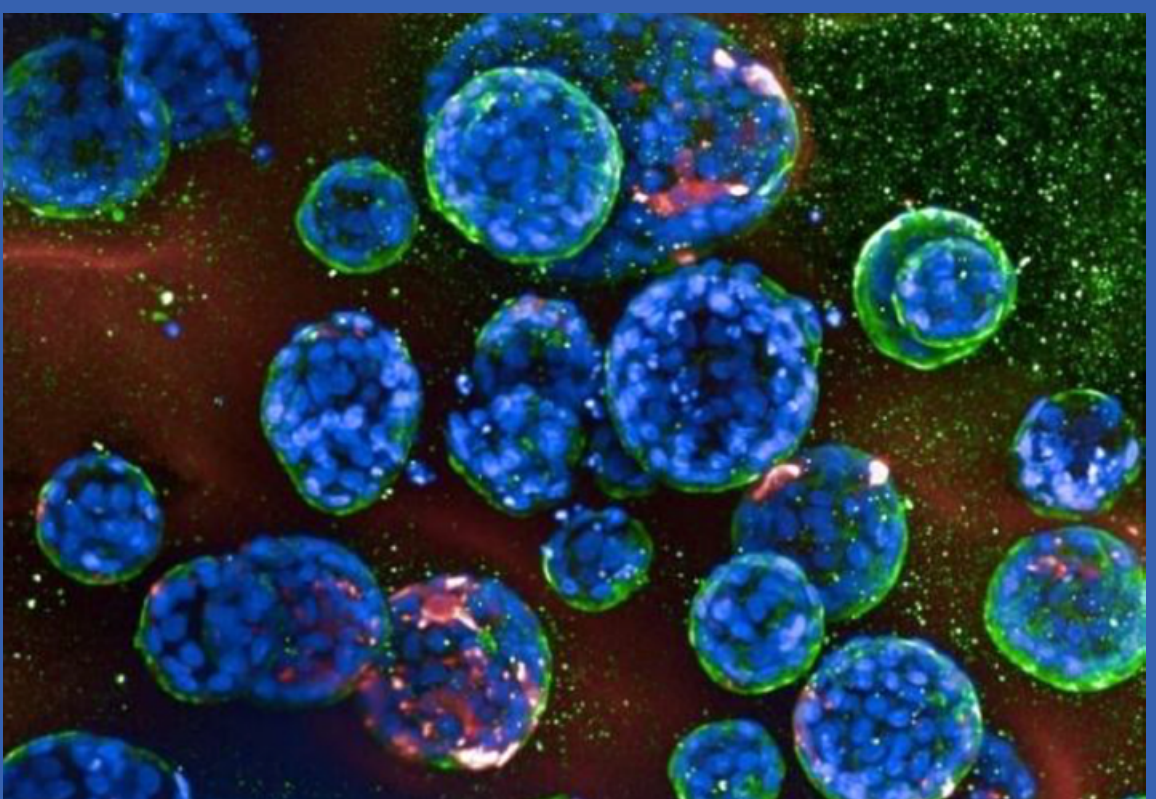


Through close collaborations with Hadassah clinicians and leading academic institutions, including the Hebrew University of Jerusalem, the Weizmann Institute of Science, and the Technion - Israel Institute of Technology, the Center has generated numerous joint peer-reviewed publications.

The Center develops next-generation therapeutics by providing research services to leading pharmaceutical companies such as TEVA and to biotechnology startups.

The Center contributes to the standardization and validation of organoid technologies as a core partner in the Israel Innovation Authority's Organospheres National Consortium. It is also launching a precision oncology clinical trial for triple negative breast cancer integrating molecular profiling, AI-based predictive algorithms, and patient-derived organoids that serve as functional "avatars" to guide treatment decisions.

Through innovation, interdisciplinary collaboration, and translational research, the Hadassah Organoid Center is helping to shape the future of personalized healthcare.



Patient-derived gastric organoids genetically engineered for inducible gene expression. Immunofluorescence staining reveals nuclei (blue), chromogranin A-positive endocrine cells (green), and serotonin-producing enteroendocrine cells (red), illustrating the cellular complexity that can be reproduced in organoid cultures. (In collaboration with Prof. Danny Ben-Zvi, The Hebrew University of Jerusalem)



For more information on applying, please contact Mr. Tom Kedar at kedart@hadassah.org.il



The remarkable achievements listed above are the result of the hard work of the physician-researchers and the great belief of Hadassah's management in conducting research and its contribution to clinical work.

We, the staff of the Research, Development and Innovation Division, will continue providing assistance, support, and empowerment. We are happy to assist you in any way!

Best regards,



The Management of the Research, Development and Innovation Division and the Research Fund of the Hadassah Medical Organization