



THE KAYE INNOVATION AWARDS

 The Hebrew University Of Jerusalem
BOARD OF GOVERNORS 2023


**SUSTAINABLE
PLANET**

JUNE 2023



ISAAC KAYE

Isaac Kaye is a pharmaceutical chemist who has been very successful at translating novel ideas into profit-generating products.

He established Norton Healthcare, a substantial generic pharmaceutical company in the UK, which later merged with the IVAX Corporation of the USA. Teva, Israel's biggest company completed its acquisition of IVAX in 2006, creating the world's largest generics company.

After retiring from IVAX, he turned his attention to venture capital and together with partners founded Israel Healthcare Ventures (IHCV), a provider of capital to early and expansion stage Israeli companies. IHCV focuses exclusively on healthcare and life sciences.

Isaac Kaye's passion for medical innovations that advance human healthcare is matched by a number of other interests, including his love of Israel and its people and his enthusiasm and support for The Hebrew University of Jerusalem and the principles upon which it is based. Fortunately for The Hebrew University, Isaac Kaye's interests in pharmacology, new chemical entities and medical devices are very much in line with areas in which the University has considerable expertise and which it is eager to develop.

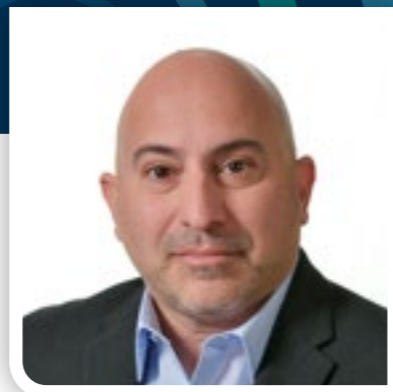
In 1995, the Isaac and Myrna Kaye Chair in Immunopharmacology at the School of Pharmacy was established, providing much needed research funds in this field. In 2005, he established five annual fellowships for outstanding

graduate and post-doctoral students. "The Kaye-Einstein Fellowships" encourage recipients to continue their studies at The Hebrew University for a minimum of three years, helping to prevent the University's finest scholars from being recruited by other leading institutions. Subsequent to the first program of scholarships, five additional three year scholarships were awarded in 2010, and another five in 2013 to outstanding students as "Kaye-Einstein Scholarships." Yet another five commenced in 2016.

Isaac Kaye established the annual Kaye Innovation Awards in 1993. The awards have earned an esteemed reputation highlighting innovations with potential for income generation, principally through royalties for the University. Applications must be well focused and accompanied by recommendations but unlike grant proposals anyone from the most senior to the most junior staff may apply. Students are always encouraged to submit proposals. The winners demonstrate not only good science but also a focus on commercial viability and the benefits this brings to the University.

Isaac Kaye has always been active on behalf of The Hebrew University. He served as Chairman of the South African Friends organization and became an active member of the University's Board of Governors. Following his move to the UK, Isaac Kaye joined the British Friends and continued as a member of the Board of Governors of The Hebrew University. He is currently Chairman of the British Friends. Our University is deeply indebted to both Isaac and Myrna for their deep involvement and devotion to this institution.

YISSUM: PLAYING TO THE TUNE OF THE FUTURE



As a Tech Transfer, it is our role to take curiosity driven research out of the lab and into the marketplace to cause disruptive impact and change the world. We understand that our role is in orchestrating this magnificent concert.

We play to the tune of the future. If you listen, you will hear about the quantum revolution, our food-tech inventions dominating the sector, medicine that will open the world up to more affordable and accurate healthcare for you and your family.

Academia does not rely on stocks in the market, but rather equity in the freedom to think, experiment and gather as a community of intellectuals that refuse to be defined by today's calculations and dare to figure out the solution for tomorrow's breakthroughs. Innovation is built on the foundations of that which does not exist, yet. So as the world concerns itself with history's indicators, our researchers, students, and academic community are focused on inventing the future. While the world may lack in resources, as a Tech Transfer, we know we are abundant in the one resource that matters: Curiosity. A priceless commodity, an endless source of fuel on our six campuses throughout the country. As a leading university in Israel, we have continued to thrive in every market, and created a vision of the impossible, with know-how, resilience and, of course the skill and expertise to patent the potential greatness.

Prof. Nurit Argov-Argaman, of the Faculty of Agriculture, has successfully taken research from the lab to the marketplace with the establishment of WILK, a startup cultivating milk. As an international leading expert in the field of lactation physiology, Prof. Argov-Argaman focuses her research on the most complex component of milk, the fat. Previous attempts to replace milk fat have failed due to the unique properties of these components. It is Prof. Argov-Argaman's academic findings and her work as WILK's chief scientist, that have taken this publicly traded company from theory and into practice. The company expects to launch the first real milk fat made in bioreactors, and has already created the first cultivated yogurt. This invention is based on the ability to isolate milk producing cells from the mammary gland or milk itself, of different female mammals. Together with her team, Prof. Argov-Argaman has developed this patented innovation over

the last decade. The implications go beyond the dairy industry, with the intent to provide bottled mother's milk and a solution to the world's current baby formula shortage. This alternative gives humans a healthy choice that is just as healthy for the environment: cutting down on water, land and cattle.

With one commercial hit already in the marketplace, Prof. Argov-Argaman is now collaborating with additional researchers to identify cow fertility based on simple milk droplets. While she continues to develop this research, Prof. Argov-Argaman is pursuing new industry opportunities, with The Kitchen Incubator, spinning out a new company to develop milk fat in algae based systems.

At the Faculty of Medicine, **Dr. Lior Nissim** is a pioneer in the field of synthetic biology. His expertise has orchestrated numerous commercial projects and the establishment of three companies based on his groundbreaking innovations. As a key researcher in his field, he is advancing personalized medicine by converting cells into living therapeutics to combat hitherto intractable diseases. The future of genetic medicine relies on developing customized platforms that provide precise control of the expression of therapeutic genes. This capability would allow scientists to treat a range of diseases, including cancer, a personal and professional goal for Dr. Nissim. His lab enhanced proprietary synthetic biology platforms that enable regulating gene expression with incredible accuracy, safety, and efficacy, at a fraction of the cost and time compared to other solutions in the market.

These technologies are now commercialized in several industry initiatives, including cancer immunotherapy (Circuit-Bio company), gene therapy (Abintus), cultured meat (MeatoLogic), and more. In collaboration with leading expert Prof. Yechezkel Barenholz, the two developed next-generation anti-viral vaccines, with a new multifunctional approach. Through additional commercial activity and a provisional patent, they will be able to further perfect the technology, bringing the world a novel delivery method for vaccines. Wearing more than one hat, Dr. Nissim was recently appointed as Head of Synthetic Biology at Abintus Bio, Inc., the company pioneering first-in-class, off-the-shelf genetic medicines that engineer cells directly inside the body.

Since joining the Hebrew University's School of Pharmacy in 2019, **Dr. Haitham Amal** has marched to the beat of his own drum, managing his lab with an ultimate goal to discover therapeutics and biomarkers for Autism Spectrum Disorder (ASD), brain disorders, and other diseases. For most researchers it is important to take one step at a time; however, Dr. Amal is not like most, and his leaps have already helped him to found Point 6 Bio, a startup company through a joint venture with Yissum and VLX Ventures, funded by the Israel Innovation Authority. This platform not only provides an AI model for ASD diagnosis but will investigate additional therapeutic targets through a combination of system biology analysis and biochemical, pharmacological, and behavioral tools.

In addition to this commercial activity, he also has a license agreement with Beyond Air Inc. to fund further research and development of novel therapies. A Krill Prize recipient and listed among The Marker Magazine's 40 under 40 most Promising Young People, Dr. Amal's determination will bring a breath of fresh air to families around the world, who can take comfort in his ASD diagnostic device through exhaled breath.

Hitting the high note, for many years to come, is **Prof. Roie Yerushalmi** from the Institute of Chemistry, is taking on the world of traditional materials and introducing polymer composite materials reinforced with carbon nanotubes. This is in high demand, because of the materials' higher strength-to-weight ratios compared to current standards.

Overcoming new industry standards, Prof. Yerushalmi and his team have developed a novel vapor-phase approach using combined Atomic & Molecular Layer Deposition (M/ALD) allowing molecular-level precision tailoring of CNT (Csp2-Csp2 network) interfaces while minimizing the undesired effects. The platform patented technology is applied at the molecular level "transforming" the CNT to a new kind of composite material on its own, more compatible with the resins, bringing a component of better fine-tuning, mechanical strength, and thermal and electrical characteristics. Since its original license to Quantum Innovations in 2021, two companies have been established with this cutting-edge IP, Adaxius (US based) and Clipeus (Israel based).

In recent years our research has focused on the antibiotic resistance crisis. Thousands of people are dying every year from infections that until recently could be successfully treated with antibiotics. With the need for an alternative, Phages, the bacterial viruses that kill bacteria, and are used as an antimicrobial agent, have become a potential real solution.

Under the guidance of Prof. Ronen Hazan of the Faculty of Dentistry,

his student **Ortal Yerushalmi** unlocked a key element of phage therapy, collecting a large amount of phages from a broad spectrum of bacteria. Yerushalmi was the lead conductor in establishing the Israeli Phage Bank (IPB), now one of the largest and most unique phage banks in the world. With over 500 phages in the IPB against the major bacterial pathogens that cause the most deaths in the Western world, Yerushalmi plays an integral part in organizing and running the bank. She is in charge of isolating hundreds of phages and has developed a pipeline for their characterization, creating a unique sub-collection. The phages are already a big smash, making their way around the world and used in life-saving treatments in Israel, the USA, Germany, Finland, Australia, Belgium and more. In collaboration with their lab, Hadassah Ein Kerem Hospital, is developing the Israeli Phage Therapy Center, with IPB at its core, as well as the commercial collaboration with APT, an international leading company in this field.

While the repertoire of applicable research is in its ability to transform into a commercially viable product, it is equally as important to value those that take part in the roots of the investigation. **Adi Amar**, a student in the Prof. Rotem Karni Lab at the Faculty of Medicine, took on an inspired role in his clinical research. These findings were at the inception of the spin-off company, RNable (under FutuRX). Amar's success, according to his supervisor, was in his exceptional ability to design and perform challenging experiments.

Not afraid to perform, Amar was part of trailblazing findings, identifying a chemical compound inhibitor that can stabilize mRNAs prone to degradation by NMD (Nonsense Mediated RNA Decay). The results are proof-of-principle for the treatment of genetic diseases characterized by mutations that cause unstable mRNAs and cancers that harbor splicing factor mutations. The clinical implications give hope to emerging therapies for currently untreatable diseases.

According to Napoleon Bonaparte, "music is what tells us that the human race is greater than we realize." We can only bring this noise together with a musician like Mr. Kaye, with his personal commitment and continued generosity, providing us with the opportunity to give the human race something even greater than what we realize, one patent, one note, at a time.

We offer him our profound gratitude and extend our earnest congratulations to this year's prize winners.

Itzik Goldwaser, PhD.

CEO, Yissum

1st Prize Researcher



DR. LIOR NISSIM

THE DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, FACULTY OF MEDICINE

Dr. Lior Nissim is an assistant professor at the Faculty of Medicine, The Hebrew University of Jerusalem, and is a pioneer in the field of synthetic biology. He received his PhD from the Weizmann Institute of Science, where he developed the very first synthetic gene circuit for the precise targeting of cancer cells. During his postdoctoral studies at the Synthetic Biology Center at MIT, Dr. Nissim developed innovative platforms for cancer immunotherapy and precise targeting of cell states. He now heads the applicative synthetic biology lab, which focuses on developing synthetic biology platforms that provide effective and efficient solutions to biomedicine, biotechnology, and basic research. His technologies are already implemented in several companies in Israel and the US.

RESEARCH DESCRIPTION

One of the major challenges in the biotech industry is expressing the right transgene in the exact cell state, at the exact timing, and in the exact concentrations. However, precise gene regulation is incredibly difficult, leading to insufficient safety, impaired efficacy, and cost overhangs. To address this challenge, the Nissim lab developed several proprietary synthetic biology platforms that enable tightly regulated gene expression at a fraction of the cost and time compared to other solutions. These platforms are already implemented in several companies, including Circuit-Bio (cancer immunotherapy), MeatoLogic (cultivated meat), Abintus-Bio (biomedicine), and ViVac (antiviral vaccines).

Synthetic Promoters with Enhanced Cell-state Specificity (SPECS)

SPECS consist of artificial sequences that regulate gene expression with superior specificity over native regulatory sequences. Thus, SPECS constitute key enabling

technology for targeted gene expression. We developed a novel platform to identify SPECS for virtually any cell, which can be executed in a fraction of the time, cells, and cost compared to the previous methodologies.

Synthetic Gene Circuits that Execute Boolean Logic in Living Cells

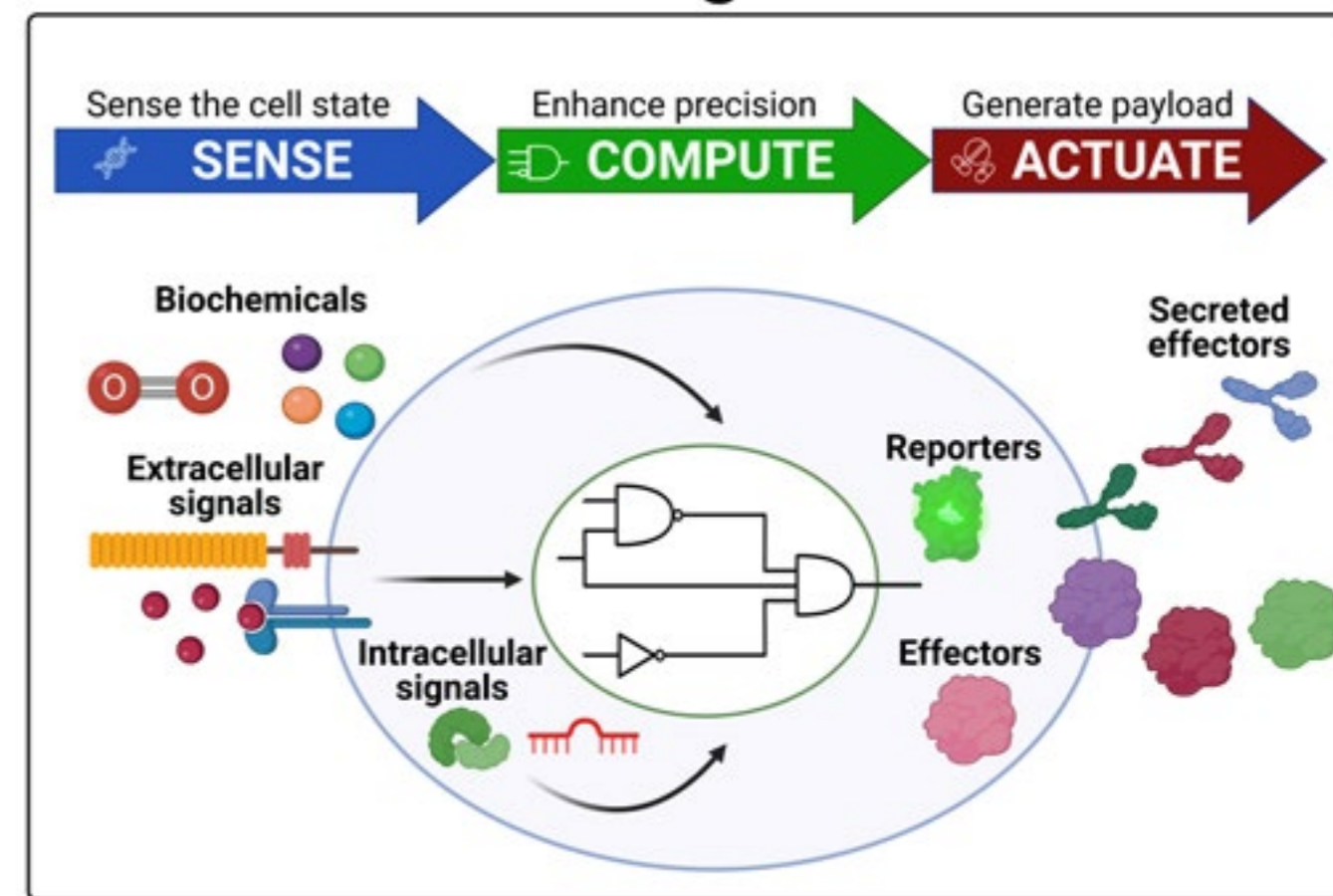
The Nissim lab developed several synthetic gene circuits that integrate SPECS activity via Boolean logical gates, such as AND, XOR, or NAND, and express output genes only when the appropriate conditions are met. Integrating the activity of multiple SPECS via logical gates provides enhanced cell-state specificity, as well as tunability, minimal activation threshold, and input amplification that enhances both the safety and efficacy of targeted therapies.

Next-Generation Anti-viral Vaccines

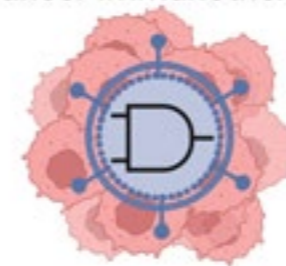
Most current vaccines mediate either extracellular exposure to viral particles (traditional vaccines) or intracellular expression of viral antigens (nucleic-acid based vaccines), thus ineffectively activating the immune system and limiting the efficacy and duration of

immunization. The Nissim lab, together with Prof. Chezy Barenholz, developed a formulation that generates both intracellular viral protein expression and the release of attenuated viral particles into the extracellular matrix. This approach would enable robust, safe, and cost-effective nucleic-acid based antiviral vaccines.

Autonomous Programmable Cells



Circuit-Bio
Cancer Immunotherapy



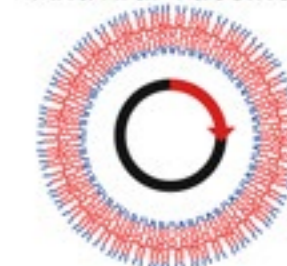
Abintus-Bio
Biomedicine



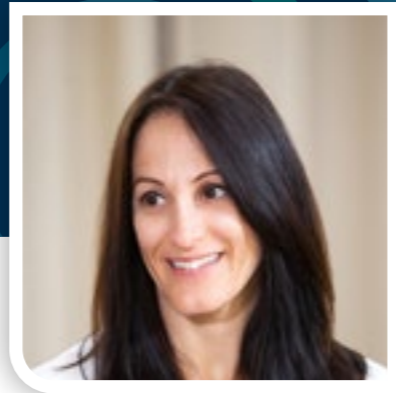
MeatoLogic
Cultivated Meat



ViVac
Antiviral Vaccines



1st Prize Researcher



PROF. NURIT ARGOV-ARGAMAN

DEPARTMENT OF ANIMAL SCIENCES, THE ROBERT H SMITH FACULTY OF AGRICULTURE, FOOD AND ENVIRONMENT

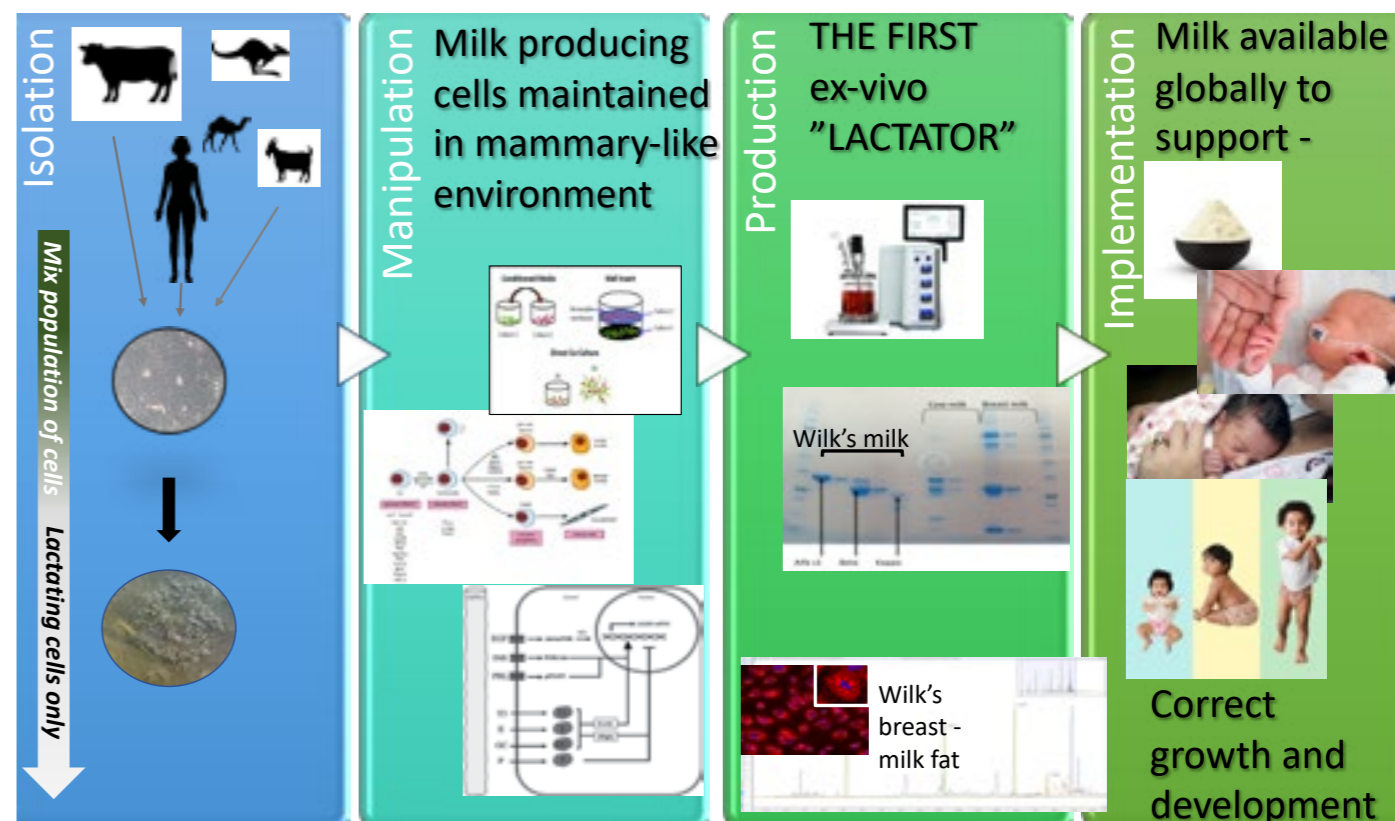
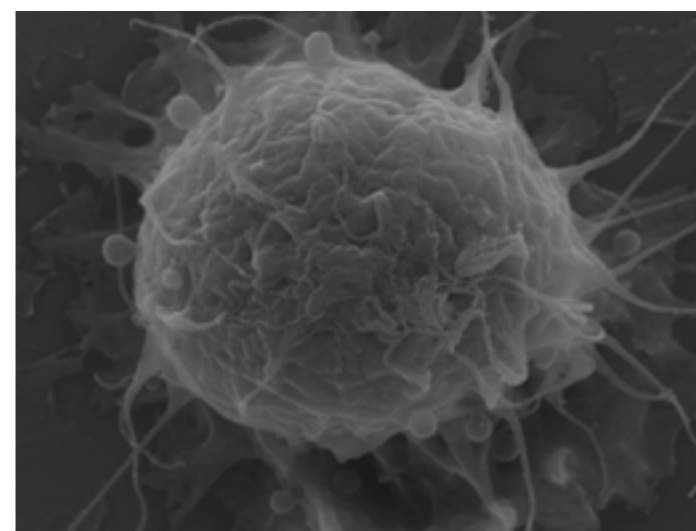
Prof. Nurit Argov-Argaman studied animal nutrition and lipid metabolism at The Hebrew University of Jerusalem. After completing a postdoctoral fellowship at the University of California, Davis, Prof. Argov-Argaman returned to HUJI and established a lactation and metabolism research group. Her research focus is lactation physiology and its metabolic regulation. The ultimate goal is to improve milk production efficiency and to control milk fat composition as a source for bioactive molecules and unique structures that can guide development of the young and improve the health of its consumers. Prof. Argov-Argaman's recent studies focus on the effect of environmental stress on the milk composition and lactation traits of dairy animals and finding nutritional strategies to alleviate their detrimental effect on milk composition.

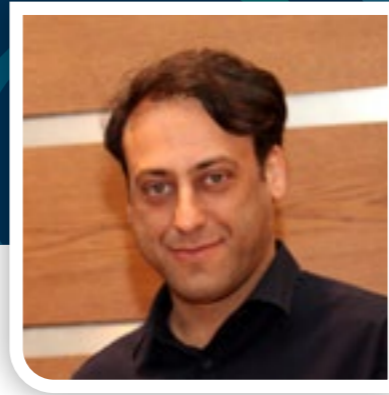
RESEARCH DESCRIPTION

Over the past 15 years, Prof. Argov-Argaman and her research team have researched how milk is created by mammalian cells. The research led to the establishment of Wilk. Wilk's aim is to produce milk components that are unique to milk, which cannot be produced nor obtained from other sources. Wilk is currently building a pipeline of milk components production, that once scaled, will be used to deliver real milk components—as complex and active as they are in milk.

The invention is based on our ability to isolate milk producing cells from the mammary gland or milk itself from various female mammals. An array of markers was identified and used to distinguish between the milk producing cells from somatic cells. Once isolated, the producing cells are allowed to proliferate in order to reach a certain critical mass and density. The next step is activation of the cells to enhance utilization of resources for milk synthesis and secretion into the media. The efficiency

of the final differentiation and production phase is critical, and it is enhanced by providing specific and synchronized hormonal signals and exact metabolic composition of the media. One of the biggest challenges is to minimize the loss of production phenomenon the cells go through once dissected from the mammary gland. To mitigate that, we are developing a unique microenvironment that will maintain the tissue properties ex vivo and enable the cells to remain active. We are developing a unique mammary-like microenvironment to produce the proper paracrine signals to maintain production of the milk producing cells. The invention is already protected by two provisional patents: 1) Protection of the specialized media used to enhance milk production in vitro with a special focus on milk fat; 2) A unique milk fat harvesting protocol which will enable the production of milk fat in its natural active structure—the technology for its production has not been available up until now.





PROF. ROIE YERUSHALMI

THE INSTITUTE OF CHEMISTRY AND THE HARVEY M. KRUEGER CENTER FOR NANOSCIENCE AND NANOTECHNOLOGY

Prof. Roie Yerushalmi joined the Institute of Chemistry and the Harvey M. Krueger Center for Nanoscience and Nanotechnology at The Hebrew University of Jerusalem in 2008, after completing his postdoctoral studies at the University of California, Berkeley. His current research interests include design and synthesis of functional hybrid nanostructures, organic-inorganic hybrid materials, high performance reinforced polymer composites, photocatalysis, nanoscale doping of semiconductors, and chiral thin films. Prof. Yerushalmi is the recipient of several prizes, awards, and grants, including the Krill Prize, Kennedy Prize, the career development award presented by the Human Frontier Science Program, and the ERC young scientist research grant. He served as a founding member of the Israel Young Academy, an organization for the advancement of young scientists and science in Israel, established by the Israel Academy of Sciences and Humanities

RESEARCH DESCRIPTION

High performance composite materials enabled by atomic and molecular layer deposition

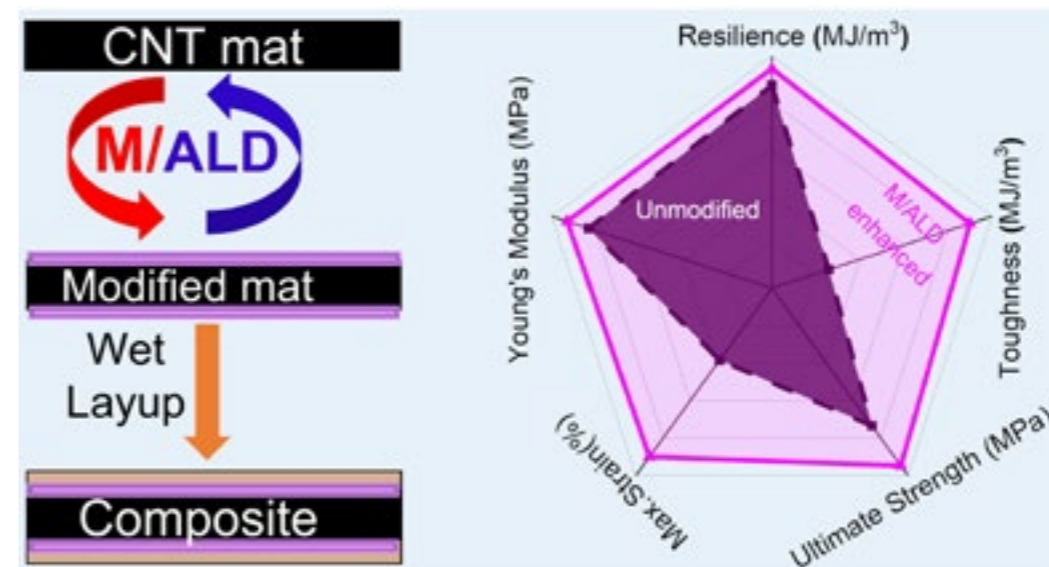
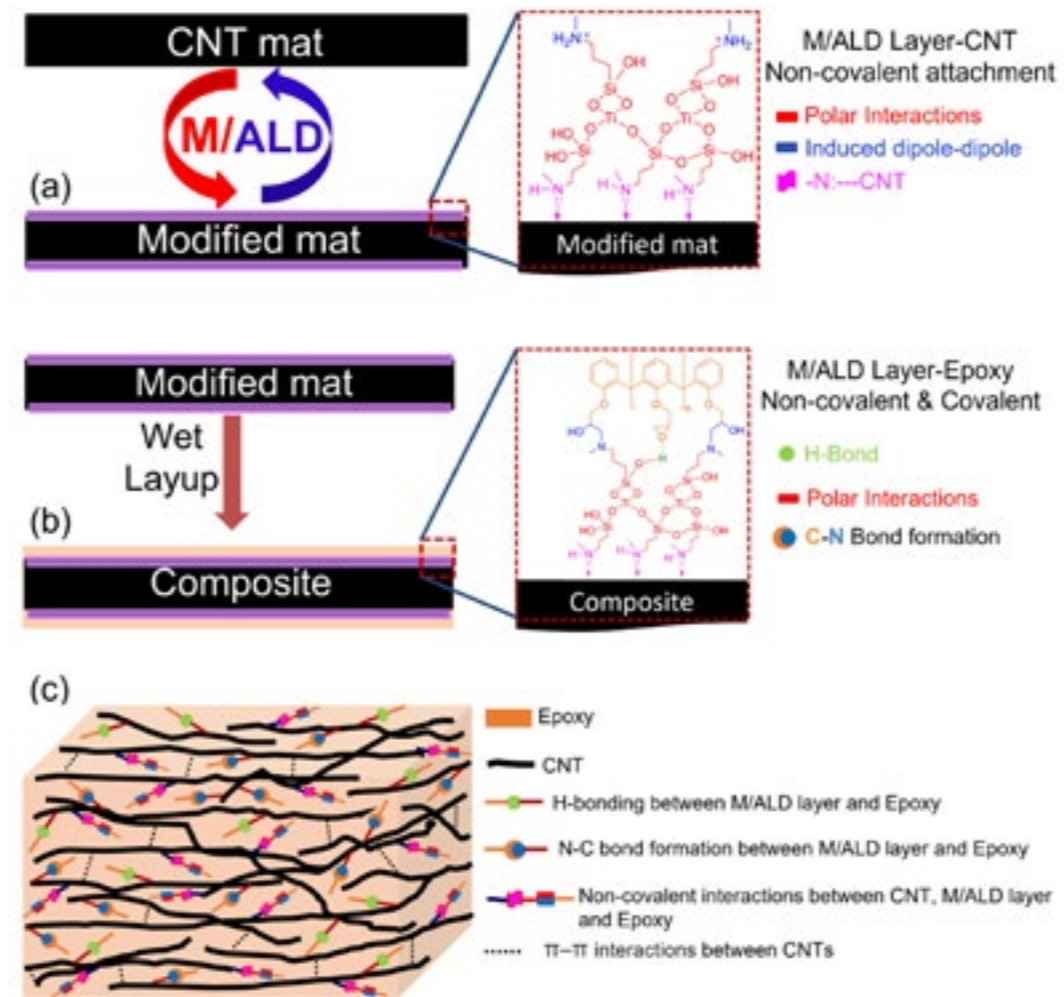
Developing light-weight, high-performance composite materials is key for maintaining rapid progress in numerous fields such as the automotive industry, aerospace, renewable energy, robotics, and more. Carbon nanotubes (CNTs) reinforced polymer composites are considered a highly promising class of materials in that context due to their potentially higher strength-to-weight ratio and superior thermal and electrical properties compared with traditional materials. One of the key challenges preventing full realization of the extensive potential of these materials in a wide range of applications stems from the very same property that makes those materials so attractive—the CNT Csp²-Csp² network. Making CNTs compatible with polymer matrices in the context of reinforced composite

materials requires adjustment of their surface properties. Current technologies for processing CNTs typically involve the introduction of surface defects or adding surfactants and glues to improve dispersion of the CNTs within the resin and to enable effective adhesion between the epoxy matrix and the CNT surface. However, the processing required for achieving the necessary compatibility with the polymer matrix comes with adverse effects compromising the resulting CNT composite mechanical/thermal/electrical properties.

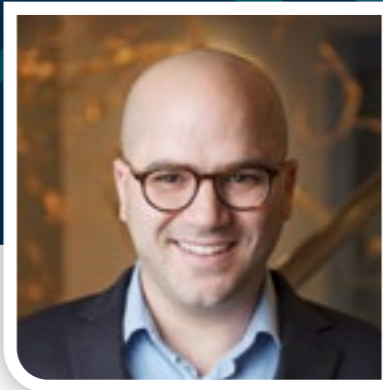
To overcome this fundamental limitation, we have developed a novel vapor-phase approach using combined atomic and molecular layer deposition allowing molecular-level precision tailoring of CNTs while minimizing undesired effects. This invention addressed these challenges by combining surface engineering with vapor-phase chemistry, featuring a balance between

non-covalent and covalent interactions with the polymer matrix in one integrated process in a manner resembling bio composites in nature—obtained, however, through a very different molecular engineering methodology. The technology is applied at the molecular level “transforming” the CNTs to a new type of composite material on its own, which is compatible with a broad range of commercially

relevant resins (such as epoxy, PDMS, and others). The technology allows for fine tuning of the resulting composite material properties and enables the design of complex critical structural components with far better mechanical strength as well as thermal and electrical characteristics.



2nd Prize Researcher



DR. HAITHAM AMAL

THE SCHOOL OF PHARMACY, INSTITUTE FOR DRUG RESEARCH,
THE FACULTY OF MEDICINE

Dr. Haitham Amal conducted his postdoctoral studies at the Massachusetts Institute of Technology (MIT). It was there that he started his journey working on autism spectrum disorder (ASD) and Alzheimer's disease (AD). He was a senior postdoctoral assistant professor at the Biological Engineering Department at MIT and an affiliate at the Stanley Center for Psychiatric Research at the Broad Institute of MIT and Harvard. Dr. Amal is currently an assistant professor at the School of Pharmacy, Institute for Drug Research at the Faculty of Medicine at The Hebrew University of Jerusalem. Dr. Amal has received many awards and grants including from the Israel Science Foundation; the prestigious Krill Prize overseen by the Wolf Foundation; a US Department of Defense (DoD) grant; the MIT-Technion Postdoc Fellowship; the Maof Research Grant; the Golda Meir Lectureship Award, and more.

He was included in the 40-Under-40 most promising young people by The Marker Magazine (2021). The Amal Lab has published 14 papers and secured two patents during his tenure as assistant professor at HUJI during the past three and a half years. One of the groundbreaking discoveries showed comparable pathological similarities between ASD and AD pathologies. This may lead to the development of the same drug for both disorders.

Based on the first patent, Dr. Amal, together with HUJI and Yissum, established Point6 Bio Ltd, an Israeli start-up company. The company aims to develop diagnostic tools for ASD based on simple blood and microbiome tests! And, following the second patent, Dr. Amal signed a research agreement with an American pharmaceutical company listed on Nasdaq with the goal of developing a drug to treat ASD. Dr. Amal recently won the Eagles Autism Foundation Research Grant—the first international scientist to win this prestigious grant!

RESEARCH DESCRIPTION

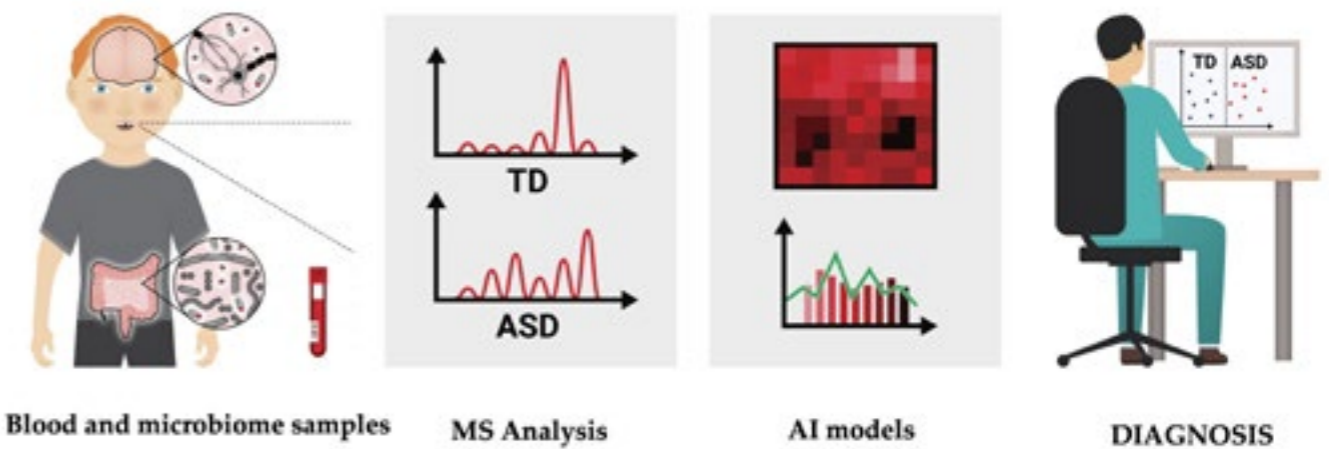
A Novel Integrative Blood/Microbiome Platform for the Diagnosis and Therapy of Autism Spectrum Disorder

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by abnormalities in social interactions, deficits in communication, restricted interests, repetitive behavior, and sensory anomalies. In the US, the ratio of individuals with ASD has risen to 1 in 30 (1 in 58 in Europe), representing an increase of over 40% since 2017. ASD can be a devastating disorder not only for the patients but also for their families. It has been predicted that the total economic burden of American families with a family member suffering from ASD will reach up to 3.6% of the GDP by 2025. To date, neither biological diagnostics assisted by laboratory tests nor

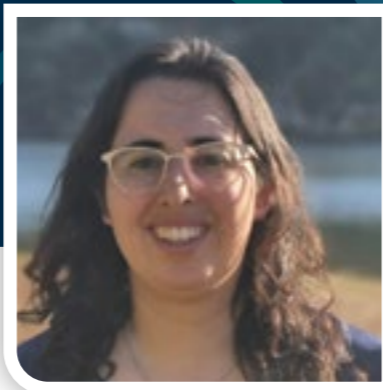
effective pharmacological treatment or preventive measures have been established for ASD.

Dr. Amal has developed a unique and novel multi-omics platform for developing diagnostic models for ASD using AI models. The platform is based on two simple tests to establish diagnosis: blood and microbiome samples from autistic children. A clinical study conducted by his lab on 30 ASD and 30 typically developed (TD) children (2–8 years) showed a promising accuracy (>90%) in distinguishing ASD from typically developed children using the platform in combination with AI algorithms.

Equally important is that the multi-omics platform can also serve as an advanced tool for studying other neurological and non-neurological pathologies.



1st Prize Student



MS. ADI AMAR-SCHWARTZ

THE DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY,
FACULTY OF MEDICINE

Ms. Adi Amar-Schwartz is a PhD student in Prof. Rotem Karni's laboratory at the Department of Biochemistry and Molecular Biology, the Faculty of Medicine at The Hebrew University of Jerusalem. One of Ms. Amar-Schwartz's primary PhD research projects focuses on the role of m6A RNA modification on the stability of mRNAs in genetic diseases and cancer. This research has led to the development of a new treatment direction for currently untreatable diseases. Her interest in both understanding the molecular mechanisms of diseases and possible therapeutic applications has been the key motivation throughout Ms. Amar-Schwartz's PhD research. These findings are protected by patent (US20220339236A1). RNable, a startup company in the FutureX biotech accelerator modulating RNA epitranscriptomics for the treatment of specific cancers and rare genetic diseases, was established based on these findings.

RESEARCH DESCRIPTION

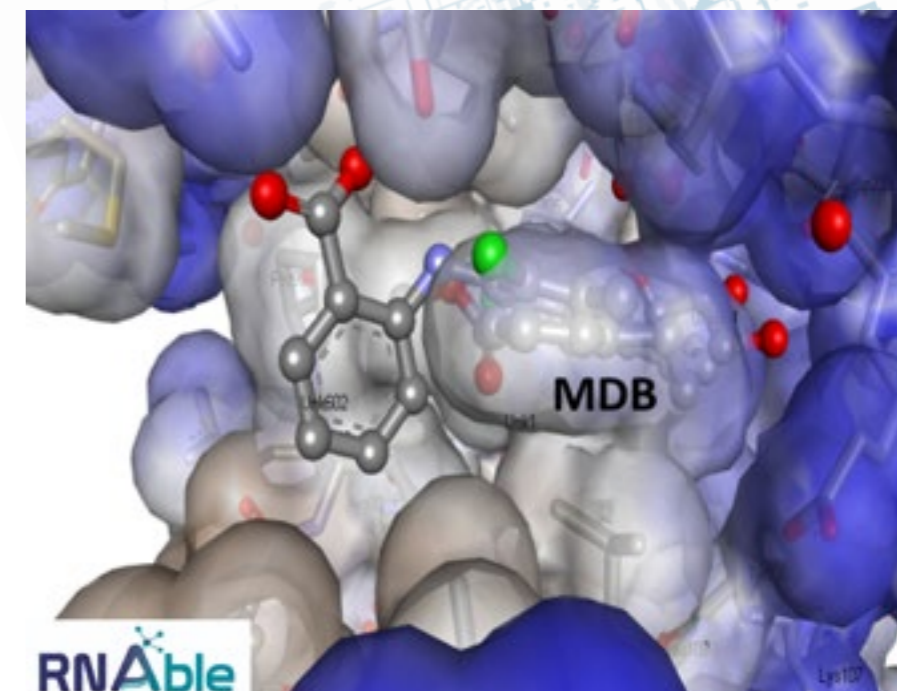
Modulation of m6A RNA modification to inhibit mRNA degradation in genetic diseases and cancer

There are currently approximately 7,000 single gene rare genetic diseases; in almost 11% of the cases the mutations causing the disease are nonsense mutations (affecting ~8,250,000 patients worldwide). The vast majority of patients harboring nonsense mutations have no available treatment or therapies. Nonsense mutations are known to generate stop codons thereby leading to premature termination of the mutant protein. Nonsense Mediated RNA Decay (NMD), a cellular proofreading mechanism, eliminates mRNAs containing premature termination codons (PTCs) by recognizing and degrading such mRNAs. Thus, in most cases, nonsense mutations will result in elimination of the mutant mRNA and protein. The NMD process is also critical for certain types of

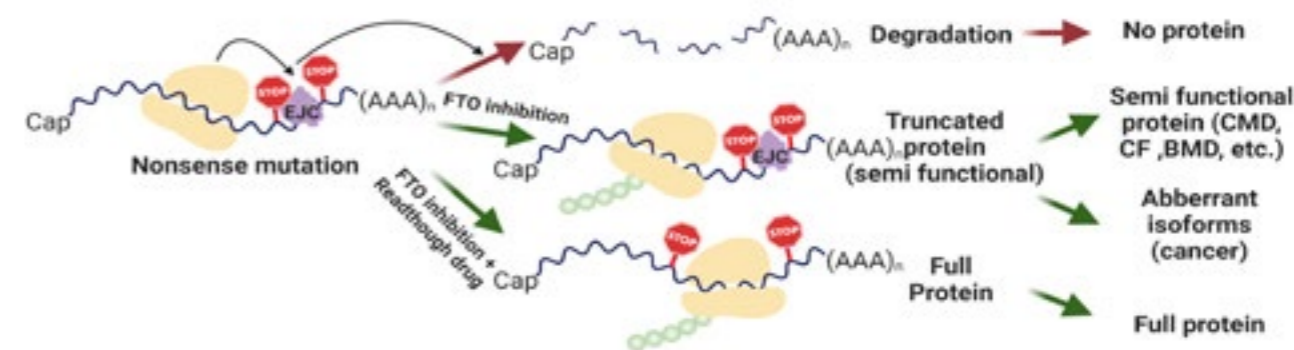
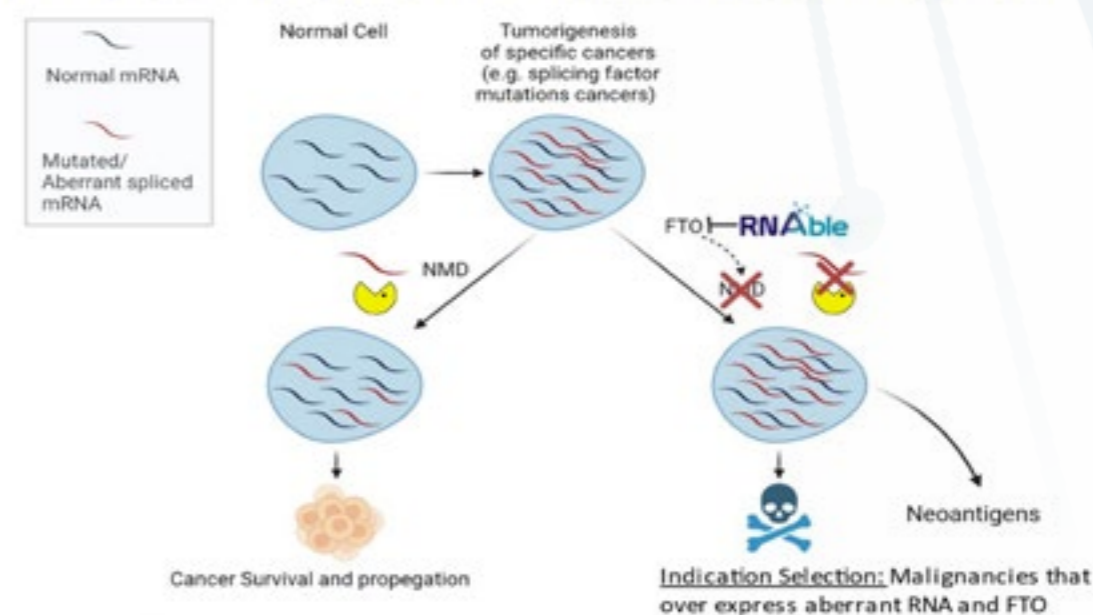
cancer that produce high levels of mutated mRNAs since they produce toxic truncated proteins. Consequently, such cancers are highly sensitive to inhibition of mRNA degradation.

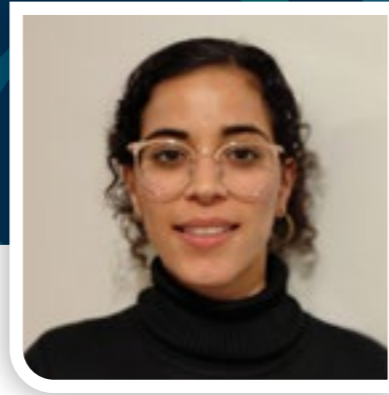
We have evidence that the enzyme fat mass and obesity-associated protein (FTO), which removes methyl groups from the N6-methyladenosine (m6A) position in RNAs, affects the stability of mRNAs which are targeted by NMD. We have identified a chemical compound, MDB, which inhibits FTO activity. Our experiments demonstrate that both genetic and pharmacologic inhibition of FTO can stabilize mRNAs prone to degradation by NMD. Using Becker muscular dystrophy (BMD) patient-derived fibroblasts trans-differentiated into myocytes, we have demonstrated that MDB can enhance dystrophin mRNA stability and the production of the dystrophin protein, which is limited in BMD patients. In cancer cells, we have

shown that cells harboring splicing factor mutations are hypersensitive to FTO inhibitors. These results are proof-of-principle for the use of FTO inhibition in the treatment of genetic diseases characterized by mutations that cause unstable mRNAs as well as cancers that harbor splicing factor mutations. As a result, this research will both shed light on the molecular mechanisms by which m6A levels and FTO activity regulate NMD while also providing clinical implications for development of therapies for currently untreatable diseases.



FTO inhibition for toxic mRNA stabilization in cancer





ORTAL YERUSHALMY

THE INSTITUTE OF BIOMEDICAL AND ORAL RESEARCH (IBOR),
THE FACULTY OF DENTAL MEDICINE

Ms. Ortal Yerushalmy is a PhD student in Prof. Ronen Hazan's laboratory at the Institute of Biomedical and Oral Research (IBOR), the Faculty of Dental Medicine at the Hebrew University of Jerusalem. Her research focuses on phage therapy, the use of phages which are specific bacterial viruses as antimicrobial agents. As part of her research, she led the establishment of the Israeli Phage Bank (IPB), which contains hundreds of phages that can combat major bacterial pathogens and was part of the team that performed the first phage therapy in Israel. Today, the IPB is one of the largest, varied, and unique phage banks globally. Its phages have been sent to leading medical centers around the world for lifesaving and research purposes. Ms. Yerushalmy also participates in several other of the lab's projects. Additionally, she has co-authored 11 scientific articles and is named the first author of two of them.

RESEARCH DESCRIPTION

In recent years, we have seen the consequences of the antibiotic resistance crisis. Thousands of people die each year from infections, which, until recently, could have been treated successfully with antibiotics. Unfortunately, the situation will continue to deteriorate if new anti-bacterial agents are not discovered soon.

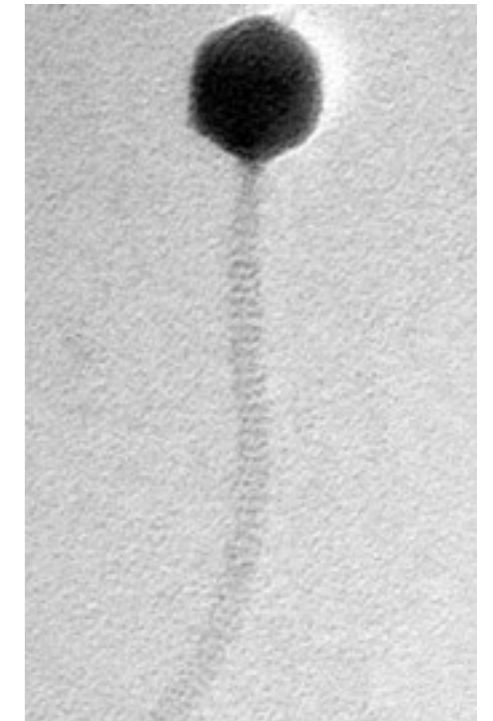
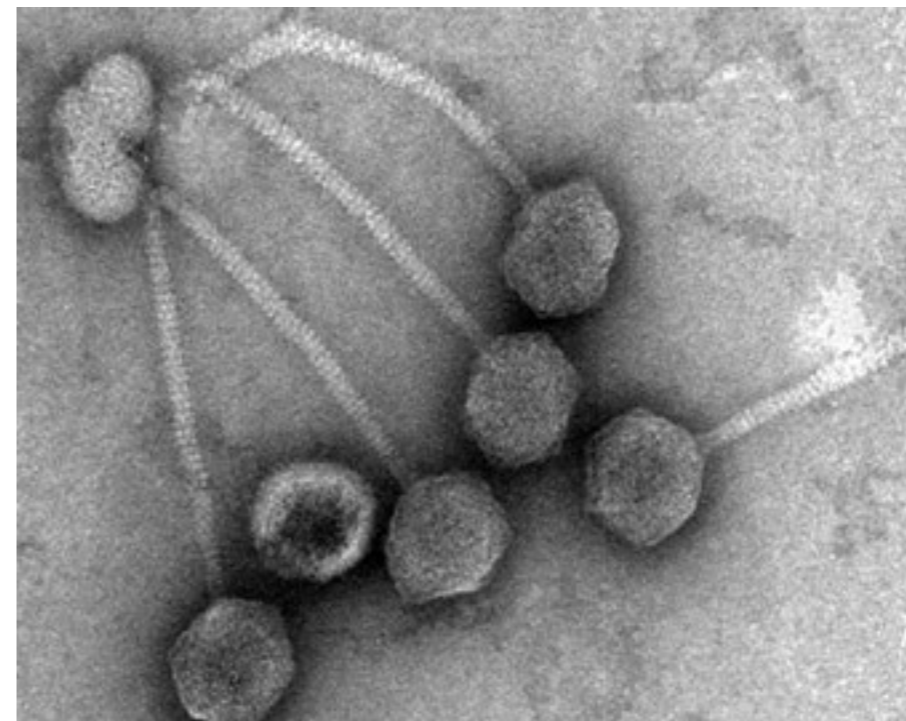
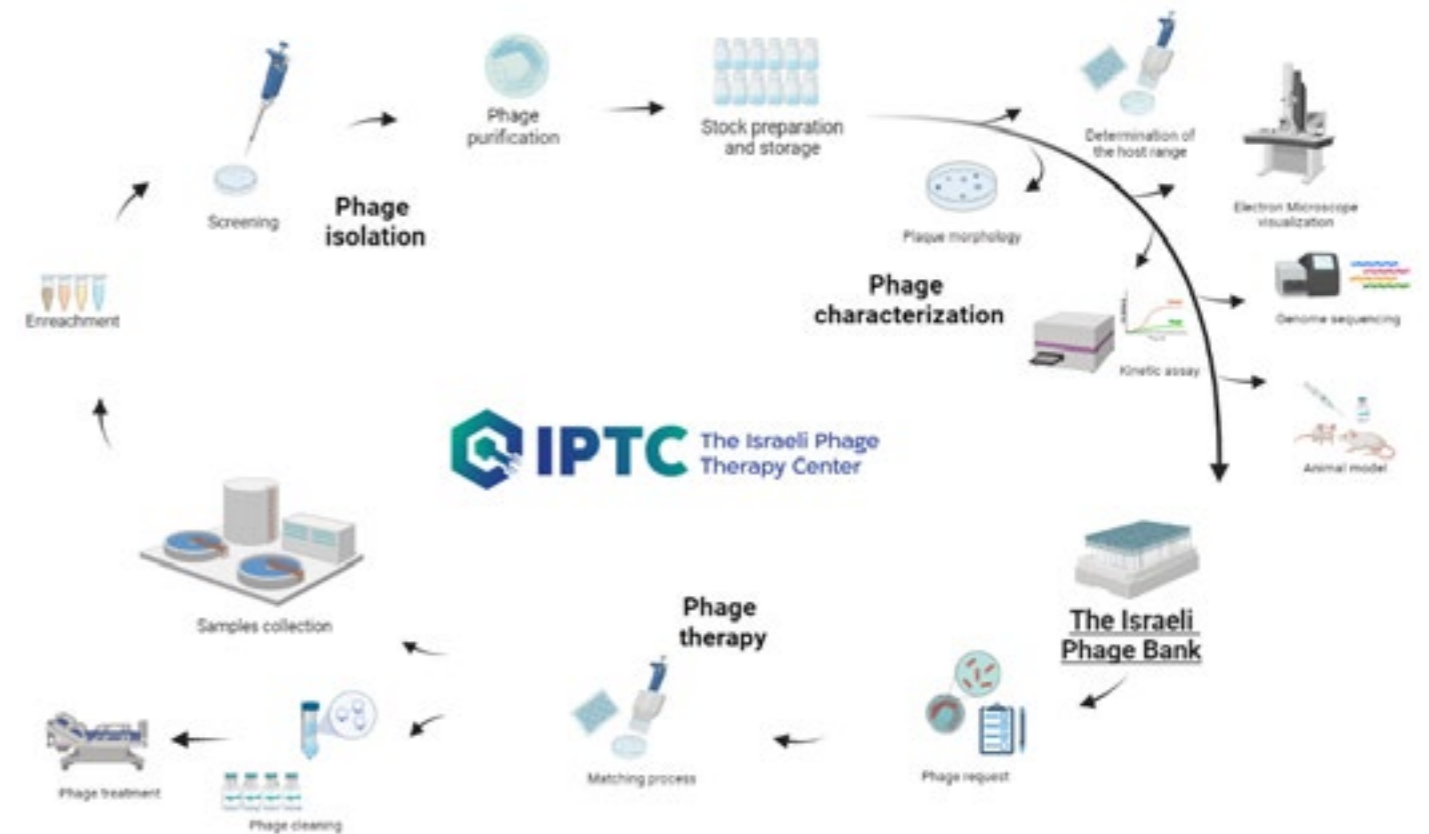
Bacteriophages, or phages, are bacteria-specific viruses that infect certain bacteria and cause their death. Phage therapy—the use of phages as antimicrobial agents—was first used over a hundred years ago by Félix d'Hérelle who discovered phages. However, after the subsequent discovery of antibiotics, this therapy was neglected in the Western world for decades. Nevertheless, due to the urgency of finding a solution to antibiotic-resistant bacteria, there has recently been a renewed interest in this field. Consequently, there has been a surge in phage

therapy research, clinical trials, and compassionate use of phages.

The tremendous advantage of the phages' specificity exceeds that of antibiotics since they do not harm the microbiome. However, this also limits their efficacy to a narrow range of bacteria. Therefore, to effectively treat a broad spectrum of infections, it is crucial to have a large collection of phages that target a wide range of bacteria. To meet this need, the IPB was established through a collaboration between Prof. Hazan's lab at the Hebrew University and Hadassah Medical Center. The phages in the IPB are characterized and tested for their suitability for therapy using methods such as electron microscopy and genome sequencing. Today, with hundreds of phages targeting major bacterial pathogens, the IPB is one of the largest and most distinctive phage banks globally.

To date, phages from the IPB have been used to treat several dozen patients in Israel and around the world, including in the US, Germany, Finland, Australia, Belgium, and other countries. The Israeli Phage Therapy Center

(IPTC) is currently being established—with the IPB at its center. We hope that the IPB will become a key element of phage therapy in Israel and worldwide—making Israel a pioneer in this field in the coming years.



KAYE-EINSTEIN SCHOLARSHIPS

2022-2023

Second year recipients

CARLA AZAR, PH.D. CANDIDATE IN MEDICINE

Faculty of Medicine

ZAHALA BAR ON, PH.D. CANDIDATE IN MEDICINE

Faculty of Medicine

LUTFI HODALI, PH.D. CANDIDATE IN MEDICINE

Faculty of Medicine

MERAY KADEE, PH.D. CANDIDATE IN AGRICULTURE

The Robert H. Smith Faculty of Agriculture, Food and Environment

EVYATAR SAR-SHALOM, PH.D. CANDIDATE IN AGRICULTURE

The Robert H. Smith Faculty of Agriculture, Food and Environment

KAYE INNOVATION AWARDS

AT THE HEBREW UNIVERSITY OF JERUSALEM

2022

INVENTORS: PROF. ITAMAR GATI

School of Education

DR. MICHAL PHILIPS - BERENSTEIN

School of Education

Invention: Reducing Dropout from Higher Education by Assessing Psychosocial Readiness for College**INVENTOR: PROF. RAMI I. AGEILAN**The Lautenberg Center for Immunology and Cancer Research,
Faculty of Medicine**Invention: AAV-Mediated Delivery in WWOX-Related Human Neurological Diseases****INVENTOR: PROF. ZVI HAYOUKA**

Institute of Biochemistry, Food Science and Nutrition, The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Random Antimicrobial Peptide Mixture to Tackle Bacterial Contamination in Various Technologies**INVENTOR: MR. NADAV WALLIS**

Ph.D. student in Prof. Joel Yisraeli's lab at the Department of Developmental Biology and Cancer Research, in the Institute for Medical Research, Israel-Canada

Faculty of Medicine

Invention: IGF2BP Inhibitors as a Novel Target for Cancer Therapy**INVENTOR: MS. AVANTHIKA VENKATACHALAM**Doctoral candidate in Prof. Yinon Ben Neriah's lab. The Lautenberg Center for Immunology and Cancer Research
Faculty of Medicine**Invention: Targeting Cancer Vulnerabilities in Acute Leukemia****INVENTOR: DR. HIBA NATSHEH**Postdoctoral fellow in Prof. Elka Tuitou's laboratory of the Innovative Dermal, Transdermal, and Transmucosal Drug Delivery
Institute for Drug Research

Faculty of Medicine

Invention: A New Nanotechnology for Enhanced Drug Delivery to the Brain

KAYE-EINSTEIN SCHOLARSHIPS

2021

INVENTOR: PROF. DAVID NAOR

Department of Immunology and Cancer Research
Faculty of Medicine

Invention: Synthetic 5-MER peptide, recognizing Serum Amyloid A: A new potential drug and a new target for chronic inflammations

INVENTOR: PROF. ROTEM KARNI

Department of Biochemistry and Molecular Biology
Faculty of Medicine

Invention: Translating findings into new therapies for cancer and other genetic diseases.

INVENTOR: PROF. LIOZ ETGAR

Institute of Chemistry
Faculty of Science

Invention: Green energy by recoverable fully printable perovskite solar cells

INVENTOR: PROF. FRANCESCA LEVI-SHAFFER

School of Pharmacy
Faculty of Medicine

Invention: Identify new targets for prophylaxis/treatment of allergic disease by specifically studying the two main effector cells of these conditions, the mast cells and the eosinophils

INVENTOR: VLAD SHUMEIKO

Completed his Ph.D. under the supervision of Prof. Oded Shoseyov
The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: An artificial optical nose system for smells detection and classification

2020

INVENTOR: PROF. AMOS NUSSINOVITCH

Department of Biochemistry, Food Science and Nutrition
The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Developing edible protective films to extend postharvest shelf life of fresh and processed fruit and vegetable

INVENTOR: PROF. ELKA TOUITOU

School of Pharmacy, Institute for Drug Research
Faculty of Medicine

Invention: Breakthrough technology of delivery systems for pharmaceutical cannabinoid products

INVENTOR: PROF. RUTH GALLILY

The Lautenberg Center for General and Tumor Immunology
Faculty of Medicine

Invention: The discovery that CBD is a powerful anti-inflammatory and analgesic and that it is also useful in diabetes and obesity

INVENTOR: ORIT BERHANI

Ph.D. Student in Prof. Ofer Mandelboim's lab at the Lautenberg Center for Immunology and Cancer Research
Faculty of Medicine

Invention: A new immunotherapy involving Natural Killer cells and Bi-and tri-specific antibodies

INVENTOR: AMIJAI SARAGOVI

Completed his Ph.D. under the supervision of Dr. Michael Berger
Faculty of Medicine

Invention: Devised a novel strategy that enable T cells to exclusively utilize alternative carbon source to glucose

2019

INVENTOR: PROF. YOSSI PALTIEL

The Quantum Nano Engineering Laboratory, Applied Physics Department

Invention: A generic way to synthesize and separate chiral enantiomers

INVENTORS:

PROF. GABRIEL NUSSBAUM

MD PhD. Expertise in innate immune signaling in infection and autoimmunity. Institute of Dental Sciences.

PROF. AMNON HOFFMAN

PhD. Expertise in bio-pharmaceutics, drug delivery and clinical pharmacy. Institute of Drug Research.

PROF. CHAIM GILON

PhD. World renowned expert in peptide chemistry, inventor of the backbone cyclization concept for peptide drug design and development.

Institute of Chemistry.

Invention: MyR-c(MyD 4-4), a novel cyclic peptide drug lead for autoimmune disease and cancer therapy

INVENTOR: PROF. OREN TIROSH

Redox Biology Lab.

Institute of Biochemistry, Food Science and Nutrition, Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Novel approach for safe preservation of meat products

INVENTOR: MR. JOSHUA MOSS

MD-PhD student under the mentorship of Prof. Yuval Dor at the Faculty of Medicine and Prof. Tommy Kaplan at the School of Computer Science and Engineering

Invention: A blood test to detect and localize cell death

INVENTOR: MS. BAT-EL COHEN

PhD student in Prof. Lioz Etgar's research lab

The Institute of Chemistry

Invention: Incorporation of 2D perovskite towered enhanced efficiency and stability in solar cells

2018

INVENTOR: PROF. URIEL LEVY

Department of Applied Physics, Faculty of Science

The Harvey M. Krueger Family Center for Nanoscience & Nanotechnology

Invention: CMOS Compatible Low Cost Photodetection in the Short Wave Infrared (SWIR)

INVENTOR: PROF. YAAKOV NAHMIA

Department of Bioengineering, The Selim and Rachel Benin School of Engineering and Computer Science

The Alexander Silberman Institute of Life Sciences, Faculty of Science

Invention: Liver on a Chip Technology (Tissue Dynamics)

INVENTOR: PROF. RAM REIFEN

The School of Nutritional Sciences

The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: ChickP- The New Vegetarian Protein

INVENTOR: MS. ADI RECHES

Department of Immunology

Lautenberg Center for General and Tumor Immunology

Faculty of Medicine

Invention: Blocking Antibodies against Nectin4 as Cancer Immunotherapy

INVENTOR: MRS. SIVAN NIR-LUZ

Department of Chemistry, Institute of Chemistry

Faculty of Science

Invention: Simple Peptide Particles with Dual Antifouling and Antimicrobial Activity

2017

INVENTORS: PROF. YUVAL DOR AND DR. RUTH SHEMER

Department of Developmental Biology and Cancer Research,
Institute for Medical Research Israel-Canada
Hebrew University-Hadassah Medical School.

Invention: Noninvasive Detection of Tissue Damage

INVENTOR: PROF. BERTA LEVAVI-SIVAN

Department of Animal Science,
The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Growth and Reproduction in Aquaculture

INVENTOR: PROF. AMIRAM GOLDBLUM

Institute for Drug Research, School of Pharmacy, Faculty of Medicine

Invention: A Novel Generic Algorithm Applied for Discovering Highly Active Drug Candidates

INVENTOR: MR. IDO SAGI

Department of Genetics Alexander Silberman Institute for Life Sciences,
Faculty of Science

Invention: Haploid Human Embryonic Stem Cells and Somatic Cells

INVENTOR: MS. SUAAD ABD-ELHADI

Department of Biochemistry and Molecular Biology,
Institute for Medical Research Israel-Canada,
Hebrew University-Hadassah Medical School

Invention: Lipid's ELISA: A Highly Sensitive Diagnostic Assay for Parkinson's Disease

2016

INVENTOR: PROF. YOEL SASSON

Casali Institute of Applied Chemistry
Institute of Chemistry, Faculty of Science

Invention: Novel Reagent for Purification of Oil-Contaminated Soil

INVENTOR: DR. MEITAL RECHES

Institute of Chemistry, Faculty of Science

Invention: Biocompatible and Environmentally-Friendly Antifouling Materials

INVENTORS: PROF. REUVEN REICH, PROF. ELI BREUER, PROF. AMNON HOFFMAN

Institute for Drug Research

School of Pharmacy, Faculty of Medicine

Invention: Novel Carbamoylphosphonate-Based Compounds for the Treatment and Prevention of Metastatic Diseases

INVENTOR: DR. PINCHAS TSUKERMAN

Department of Immunology and Cancer Research
Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: New Immunotherapy Against Cancer

INVENTOR: MR. OREN BEN DOR

Department of Applied Physics

The Rachel and Selim Benin School of Computer Science and Engineering
Faculty of Science

Invention: Chiral Molecular-Based Spin Devices

2015

INVENTOR: PROF. URI BANIN

Institute of Chemistry and the Harvey M. Krueger Family Center for Nanoscience and Nanotechnology,
Faculty of Science

Invention: Semiconductor Quantum Rods - A Quantum Leap for Displays

INVENTOR: PROF. OFER MANDELBOIM

Department of Immunology and Cancer Research
Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: Development of Monoclonal Antibody against NKp46 for the Treatment of Type 1 Diabetes Mellitus (T1D)

INVENTOR: DR. ZVI PELEG

Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture
Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Development of New Elite Sesame Cultivars Adapted for Mechanical Harvest with Enhanced Yield and Seed Quality

INVENTOR: DR. ELAD HOROWITZ

Department of Immunology and Cancer Research
Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: Methods of Predicting Efficacy of an Anti-VEGFA Treatment for Solid Tumors

INVENTOR: MS. GEULA HANIN

Department of Biological Chemistry, Silberman Institute of Life Sciences, Faculty of Science

Invention: Down Regulating miRNA-132 for the Treatment of Lipid Related Disorders

2014

INVENTOR: PROF. SIMON BENITA & DR. TAHER NASSAR

Institute for Drug Research (IDR)
School of Pharmacy, Faculty of Medicine

Invention: Development of an Original Nano-Delivery Platform for Markedly Improving the Oral Absorption of Poorly Absorbed Drugs and Proteins

INVENTOR: PROF. SHLOMO MAGDASSI

Casali Center for Applied Chemistry
Institute of Chemistry, Faculty of Science

Invention: Transparent Conductive Coffee Rings for Touch Screens

INVENTOR: PROF. MICHAL BANIYASH

Department of Immunology and Cancer Research
Institute for Medical Research Israel-Canada
Hebrew University-Hadassah Medical School

Invention: Novel Prognostic/Diagnostic Biomarkers for Detecting the Immune Status of Patients Suffering from Diseases Characterized by Chronic Inflammation and Associated Immunosuppression

INVENTOR: MICHAEL BRANDWEIN

Biofilm Research Laboratory
Institute of Dental Sciences, Faculty of Dental Medicine

Invention: Novel AntiBiofilm/Antibacterial Polymer for Food Packaging

INVENTOR: YOTAM BAR-ON

Department of Immunology and Cancer Research
Institute for Medical Research Israel-Canada
Hebrew University-Hadassah Medical School

Invention: Development of Novel Antibodies for the Treatment of Influenza Infections

2013

INVENTOR: PROF. ILAN SELA

Robert H. Smith Institute for Plant Sciences and Genetics

Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Silencing of Bee-Affecting Viral Genes in order to Control CCD

INVENTOR: PROF. AVI DOMB

Institute for Drug Research (IDR)

School of Pharmacy, Faculty of Medicine

Invention: Maze Water Purification System

INVENTOR: PROF. RAYMOND KAEMPFER

Department of Biochemistry and Molecular Biology

Institute for Medical Research Israel-Canada (IMRIC)

Hebrew University-Hadassah Medical School, Faculty of Medicine

Invention: Reduction of Inflammatory Disease Symptoms with Short Peptides that Inhibit Signaling through CD28

INVENTOR: URI BEN-DAVID

Department of Genetics

Silberman Institute of Life Sciences, Faculty of Science

Invention: PluriSIns – Pluripotent Specific Inhibitors

INVENTOR: MARGANIT COHEN-AVRAHAMI

Institute of Chemistry, Faculty of Science

Invention: Transdermal Delivery Vehicles for NSAIDs: The Combination of Liquid Crystals with Cell-Penetrating Peptides

INVENTOR: NOA KAYNAN

Department of Immunology and Cancer Research

Institute for Medical Research Israel-Canada (IMRIC)

Hebrew University-Hadassah Medical School, Faculty of Medicine

Invention: Generation of 'Super' Fc Antibody for Improving Medical Treatments

2012

INVENTOR: PROF. RAPHAEL (RAFFI) GOREN

The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: The Search for a Novel Water-Soluble Cyclopropene Derivative Antagonist (CPAS) of Ethylene Action in Agricultural Crops

INVENTOR: PROF. SAUL YEDGAR

Department of Biochemistry and Molecular Biology

Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: A Novel Class of Multi-Functional Anti-Inflammatory Drugs (MFAIDs) for the Treatment of Inflammatory/Allergic Diseases

INVENTOR: PROF. HAYA LORBERBOUM -GALSKI

Department of Biochemistry and Molecular Biology

Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: Cell and Organelle-Directed Protein Replacement Therapy for Mitochondrial and other Metabolic Diseases

INVENTOR: LITAL MAGID

Institute for Drug Research, Faculty of Medicine

Invention: Novel Cannabinoid Receptor Type 2 Selective Agonists for the Treatment of Inflammatory Conditions and Acute Central Nervous System Injury

INVENTOR: IDIT SAGIV-BARFI

Alexander Silberman Institute of Life Sciences, Faculty of Science

Invention: Novel T Cells Proliferation Inhibitors

INVENTOR: CHAMUTAL GUR, M.D.

Ph.D. student under the supervision of Prof. Ofer Mandelboim

Lautenberg Center for General and Tumor Immunology

Institute for Medical Research Israel-Canada (IMRIC), Faculty of Medicine

Invention: Generation of Anti-NKp46 mAb for the Treatment of Type 1 Diabetes

2011

INVENTOR: PROF. HAIM D. RABINOWITCH

Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture

Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Genetic Innovations in Vegetable Crops: The Cornerstone of Israel's Prominence in Hi-BioTech Seed Industries

INVENTOR: PROF. DAN GAZIT

Skeletal Biotech Laboratory, Faculty of Dental Medicine

Invention: Novel Technologies for Adult Stem Cell Manipulation and Applications in Tissue Engineering and Regenerative Medicine

INVENTOR: DR. RAANAN FATTAL

Benin School of Computer Science and Engineering, Faculty of Science

Invention: Second-Generation Wavelet-Based Image Enhancement

INVENTOR: MS. KATY MARGULIS-GOSHEN

Casali Institute of Applied Chemistry, Faculty of Science

Invention: Formation of Organic Nanoparticles from Microemulsions: Enhancing Water Solubility for Improved Biological Performance in Pharmaceuticals, Agriculture and Cosmetics

INVENTOR: MR. YFTAH TAL-GAN

Institute of Chemistry, Faculty of Science

Invention: Development of New Peptide-Based Inhibitors of Protein Kinase B (PKB) as Potential Drugs for Cancer

INVENTOR: MS. ADA GRIN

Institute for Drug Research, Faculty of Medicine

Invention: Tissue Regeneration Membrane

2010

INVENTOR: PROF. NISSIM BENVENISTY

Silberman Institute of Life Sciences, Faculty of Science

Invention: Technologies to Enable Directed Differentiation of Human Embryonic Stem Cells

INVENTOR: PROF. ODED SHOSEYOV

The Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture

The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Molecular Farming of Human Recombinant Collagen in Transgenic Tobacco Plants

INVENTOR: PROF. SHMUEL PELEG

Benin School of Computer Science and Engineering, Faculty of Science

Invention: Video Synopsis: Summarizing and Indexing Surveillance Video

INVENTOR: PROF. ALEXANDER VAINSTEIN

The Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture

The Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Towards Tailor-Made Crops and Compounds

INVENTOR: MS. MICHAL ISAACSON

Ph.D. student of Dr. Noam Shoval, Department of Geography, Faculty of Social Sciences

Invention: A Novel System for Tracking and Analyzing Human Spatial Behavior by Monitoring People's

Mobility for Tourism, Town Planning and Healthcare Applications

INVENTOR: MR. AVIAD HAI

Ph.D. student of Prof. Micha Spira Department of Neurobiology Alexander Silberman Institute of Life Sciences

Faculty of Science

Invention: In-cell Recordings and Stimulation: A Fundamental Breakthrough Concept and Technology for Neuroprosthetics

Previous Winners

INVENTORS:

MR. EZEQUIEL WEXSELBLATT

Ph.D. Supervisor: Prof. Jehoshua Katzhendler Institute for Drug Research, School of Pharmacy, Faculty of Medicine

MR. ROEE VIDAUSKI

Ph.D. Supervisor: Prof. Gad Glaser Department of Developmental Biology and Cancer Research
Institute for Medical Research Israel-Canada (IMRIC)
Faculty of Medicine

Invention: Compounds for Treating Bacterial Infections

INVENTOR: MR. MICHAEL GROUCHKO

Ph.D. student of Prof. Shlomo Magdassi Casali Institute of Applied Chemistry, Institute of Chemistry
Faculty of Science

Invention: Air Stable Copper Nanoparticles: Conductive Inks for Printed Electronics

2009

INVENTOR: PROF. ABRAHAM HOCHBERG

Department of Biological Chemistry, Faculty of Science

Invention: From a Noncoding Oncofetal RNA to Cancer Therapy: Personalizing Medicine with H19

INVENTOR: PROF. SHLOMO SASSON

Department of Pharmacology & Experimental Therapeutics, School of Pharmacy

Invention: Novel D-Xylose Derivatives: A New Class of Antihyperglycemic Compounds

INVENTOR: PROF. DAPHNE ATLAS

Department of Biological Chemistry, Faculty of Science

Invention: Development of Small Molecules for the Treatment of Neurodegenerative Diseases

INVENTOR: PROF. ARIEH GERTLER

Institute of Biochemistry, Food Science and Nutrition,
Robert H. Smith Faculty of Agriculture, Food and Environment

Invention: Development of Leptin Antagonists and their Potential Use as Therapeutic Modalities

INVENTOR: MR. SHAY SELA

Ph.D. student of Prof. Eli Keshet, Institute for Medical Research Israel-Canada, Faculty of Medicine

Invention: The Identification of a Novel Prognostic and Diagnostic Marker of Preeclampsia

INVENTOR: MR. DIMA LIBSTER

Ph.D. student of Prof. Nissim Garti and Prof. Gil Shoham,
Casali Institute of Applied Chemistry, Faculty of Science

Invention: Lyotropic Hexagonal Liquid Crystals as Carriers of Therapeutic Peptides for Transdermal Administration: Solubilization and Structural Characterization

INVENTOR: MR. SHAUL LAPIDOT

Ph.D. student of Prof. Oded Shoseyov, Smith Institute for Plant Sciences and Genetics in Agriculture
Robert H. Smith Faculty of Agriculture, Food & Environment

Invention: Compositions Comprising Fibrous Polypeptides and Polysaccharides

INVENTOR: MS. NETA PESSAH

Ph.D. student of Prof. Meir Bialer and Prof. Boris Yagen, School of Pharmacy

Invention: α -Fluoro and α -Chloro 2,2,3,3 -Tetramethylcyclopropylcarboxamide:

Two Novel Chemical Entities for the Treatment of Epilepsy and Other Disorders

2008

INVENTOR: PROF. DANIEL COHN

Casali Institute of Applied Chemistry, Institute of Chemistry, Faculty of Science

Invention: Tailor-made Biodegradable Polymers for the Prevention of Post-surgical Adhesions

INVENTOR: PROF. HERMONA SOREQ

Department of Biological Chemistry, Silberman Institute of Life Sciences, Faculty of Science

Invention: Engineered Human Cholinesterases and RNA-Targeted Agents to Suppress Their Functioning

INVENTORS: DR. ARIE DAGAN AND PROF. SHIMON GATT

Department of Biochemistry, Faculty of Medicine

Invention: Development of Novel Anti-cancer Drugs

INVENTOR: MR. YANIV SEMEL

Ph.D. student under the supervision of Prof. Dani Zamir

The Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture

Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Phenom Networks: A Web-based System for the Analysis of Quantitative Phenotypes on Both Plants and Animals for Breeding and Research

INVENTOR: MR. NADAV KIMELMAN-BLEICH

Ph.D. and DMD student under the supervision of Prof. Dan Gazit
Skeletal Biotechnology Laboratory, Faculty of Dental Medicine

Invention: Scaffolds with Oxygen Carriers and Their Use in Tissue Engineering

INVENTOR: MR. DIMA SHEYNI

Ph.D. student of Prof. Dan Gazit, Skeletal Biotechnology Laboratory, Faculty of Dental Medicine

Invention: Ultrasound-based Non-viral Gene Delivery Induces Bone Formation In Vivo

INVENTOR: MR. MATAN RAPOPORT

Ph.D. student under the supervision of Prof. Haya Lorberboum-Galski

Department of Cellular Biochemistry and Human Genetics, Faculty of Medicine

Invention: Enzyme Replacement Therapy for Mitochondrial Disorders: Lipoamide Dehydrogenase Deficiency as a Proof-of-principle

2007

INVENTOR: PROF. DANI ZAMIR

Smith Institute of Plant Sciences and Genetics in Agriculture
Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Improving Plant Breeding Using Exotic Genetic Libraries

INVENTORS: PROF. MEIR BIALER AND PROF. BORIS YAGEN

Departments of Pharmaceutics, and Medicinal Chemistry and Natural Products
School of Pharmacy, Faculty of Medicine

Invention: Design and Development of Valnoctamide: A New Drug with Stereoselective CNS Activities

INVENTOR: PROF. LEO JOSKOWICZ

School of Engineering and Computer Science, Faculty of Science

Invention: An Image-guided System with a Miniature Robot for Precise Positioning and Targeting in Keyhole Neurosurgery

INVENTOR: MR. YANIV LINDE

Student of Prof. Chaim Gilon, Department of Organic Chemistry, Faculty of Science

Invention: A Novel Oral Anti-obesity Drug Candidate: Reduction of Food Consumption by Melanocortin-4 Peptide Agonist

INVENTOR: MR. EREZ PODOLY

Student of Prof. Hermona Soreq, Department of Biological Chemistry, Faculty of Science

Invention: A Natural Brain Protein Protection from Alzheimer's Disease

INVENTOR: MR. MORAN FARHI

Student of Prof. Alexander Vainstein and Dr. Hagai Abeliovich

Smith Institute of Plant Sciences and Genetics in Agriculture

Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Engineering Saccharomyces Cerevisiae for the Production of Methylbenzoate and Resistance to Benzoic Acide for Uses in the Food Industry

INVENTOR: MR. YUVAL AVNIR

Student of Prof. Yechezkel Barenholz, Department of Biochemistry, Faculty of Medicine

Invention: Liposomal Glucocorticoids for Treating Inflammatory States

2006

INVENTOR: DR. YONATAN ELKIND

Smith Institute of Plant Sciences and Genetics in Agriculture
Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Breeding of Pepper Varieties Adapted for Protected Cultivation under Mild Winter Conditions

INVENTOR: PROF. ELKA TOUITOU

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Ethosome Innovative Technology

INVENTOR: PROF. MOSHE KOTLER

Department of Pathology, Faculty of Medicine

Invention: A Prophylactic Vaccine Preventing a Mortal Viral Disease of Koi Fish and Carps

INVENTORS: PROF. MEIR BIALER AND PROF. BORIS YAGEN

Departments of Pharmaceutics, and Medicinal Chemistry and Natural Products, School of Pharmacy,
Faculty of Medicine

Invention: Design and Development of a New Drug with Enantioselective CNS Activities – Propylisopropyl Acetamide (PID)

INVENTOR: MS. ELENA KHAZANOV

Student of Prof. Yechezkel Barenholz, Department of Biochemistry, Faculty of Medicine

Invention: Tumorsuppressive Therapy by Liposome Containing both Doxorubicin and Ceramide

INVENTOR: MR. YEHOSHUA MAOR

Student of Prof. Raphael Mechoulam, Department of Medicinal Chemistry and Natural Products,
School of Pharmacy, Faculty of Medicine

Invention: Novel Anti-hypertensive Agents based on Cannabis Constituent with Anti-inflammatory Properties-synergistic - Beneficial Cardiovascular Effects

INVENTOR: MR. NIR QVIT

Student of Prof. Chaim Gilon, Department of Organic Chemistry, Faculty of Science

Invention: SIB: Small Integrated Building Blocks

INVENTOR: MS. KHULOUD TAKROURI

Student of Prof. Morris Srebnik

Department of Medicinal Chemistry and Natural Products, School of Pharmacy, Faculty of Medicine

Invention: Synthesis and Anti-microbial Activity of a Novel Series of Alkyldimethylamine Cyanoboranes and their Derivatives

2005

INVENTORS: PROF. SHLOMO MAGDASSI AND DR. YELENA VINETSKY

Casali Institute of Applied Chemistry, Faculty of Science

Invention: Ceramic Ink Jets for Digital Printing on Glass

INVENTOR: DR. ZEHAVA UNI

Department of Animal Sciences, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Enhancement of Development of Oviparous Species by In Ovo Feeding – Feeding Eggs with Natural Nutrient Supplements Before They Hatch to Produce More Robust Chicks

INVENTOR: PROF. SIMON BENITA

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Cationic Emulsions for Ophthalmic Drug Delivery

INVENTOR: PROF. URI BANIN

Department of Physical Chemistry and Center for Nanoscience and Nanotechnology, Faculty of Science

Invention: Semiconductor Nanocrystals for Optical, Electronic, Imaging and Biological Applications

INVENTOR: MR. TALEB MOKARI

Student of Prof. Uri Banin, Department of Physical Chemistry and Center for Nanoscience and Nanotechnology, Faculty of Science

Invention: Semiconductor Nanocrystals with Conductive Zone

INVENTOR: MR. ADEL JABBOUR

Student of Prof. Doron Steinberg and Prof. Morris Srebnik, Department of Medicinal Chemistry and Natural Products,
School of Pharmacy and Institute of Dental Sciences, Faculty of Dental Medicine

Invention: Interfering in Bacterial Cross-talk: A Novel Means to Influence Pathogenicity of Biofilms

INVENTOR: MS. NATALYA KOGAN

Student of Prof. Raphael Mechoulam, Department of Medicinal Chemistry and Natural Products,
School of Pharmacy, Faculty of Medicine

Invention: Cancer Drug – Use of Quinonoid Derivatives of Cannabinoids and Such Novel Compounds in the Treatment of Malignancies

INVENTOR: MR. RANI POLAK

Student of Prof. Eran Goldin and Dr. Eitan Israeli, Faculty of Medicine

Invention: GourMed – Cooking School that Will Develop Recipes and Run a Course for People with Dietary Limitations due to Chronic Diseases

INVENTORS: STAFF OF PROF. MICHA WEISS

Department of Computerized Information Systems, Computerized Student Course Registration Project Team

Invention: Computerized Student Course Registration Project Team “Smart Raffle”

2004

INVENTOR: PROF. AMNON SHASHUA

School of Engineering and Computer Science, Faculty of Science

Invention: Monocular Visual Processing for On-board Driving Assistance

INVENTORS:

PROF. ITAMAR WILLNER, DR. EUGENII KATZ, DR. FERNANDO PATOLSKY AND MR. YOSSI WEIZMANN

Institute of Chemistry, Faculty of Science

Invention: Optoelectronic Detection of Telomerase in Cancer Cells: Development of a Screening Test for Urinary Bladder in Urine Samples

INVENTORS:

PROF. MICHAEL FRIEDMAN AND PROF. AMNON HOFFMAN

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

DR. ERAN LAVY

Koret School of Veterinary Medicine, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Novel Gastro-retentive Dosage Form (GRDF) – A Means for Sustained Administration of Drugs with Narrow Absorption Window at the Upper Gastrointestinal Tract

INVENTORS: MR. AVIRAM SPERNATH AND MS. IDIT YULI-AMAR

Students of Prof. Nissim Garti, Casali Institute of Applied Chemistry, Faculty of Science

Invention: New Nanosized Vehicles for Triggering and Targeting of Phytochemicals

INVENTOR: MS. AVITAL TORRES-KERNER

Student of Prof. Morris Srebnik, Department of Medicinal Chemistry and Natural Products, School of Pharmacy

Invention: New Natural Sunscreens: UVR Absorbing Compounds from Lichens and Cyanobacteria

INVENTOR: DR. HIJAZI ABU ALI

Student of Prof. Morris Srebnik, Department of Medicinal Chemistry and Natural Products, School of Pharmacy, Faculty of Medicine

Invention: Novel Organoboronic Compounds – Synthesis and Biological Activity

INVENTOR: MR. TAREQ JUBETH

Student of Prof. Abraham Rubinstein and Prof. Yechezkel Barenholz, Departments of Pharmaceutics and Biochemistry, Faculty of Medicine

Invention: Targeting the Intestinal Mucosa by Charged Liposomes

INVENTOR: MR. OMRI BEN-ZION

Student of Prof. Amos Nussinovitch, Institute of Biochemistry, Food Science and Nutrition

Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Novel Method and Apparatus for Testing the Rolling Tack of Pressure-sensitive Adhesive Methods

2003

INVENTORS: PROF. NISSIM GARTI AND DR. ABRAHAM ASERIN

Casali Institute of Applied Chemistry, Faculty of Science

Invention: Nano-sized Self-assembled Structured Liquids

INVENTOR: DR. ABDULLAH HAJ-YEHIA

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Design, Synthesis, and Biological Activity of Novel Hybrid Drugs

INVENTOR: DR. JONATHAN MIRVIS

Melton Centre for Jewish Education, School of Education

Invention: Florence Melton Adult Mini-School: A Social Franchise Model

INVENTOR: MS. DRORA BALAGA

Smith Institute of Plant Sciences and Genetics in Agriculture,

Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: "TOMATO" Computerized System, Breeding Hybrid Varieties

INVENTOR: ENG. TOM KOEVARY

Casali Institute of Applied Chemistry, Faculty of Science

Invention: The Centre for Process Development: A Platform for Thousands of "Inventors to Order" for Industry

INVENTOR: PROF. ZICHRIA ZAKAY-RONES

Institute of Microbiology, Faculty of Medicine

Invention: Anti-cancer Therapy by Newcastle Disease Virus (NDV)

INVENTOR: MR. ARIE GRUZMAN

Student of Prof. Shlomo Sasson, Department of Pharmacology and Experimental Therapeutics, School of Pharmacy, Faculty of Medicine

Invention: Novel Anti-hyperglycemic Drugs

INVENTOR: MS. AVIVA JOSEPH

Student of Prof. Eli Kedar and Prof. Yechezkel Barenholz, The Lautenberg Center for Immunology and Department of Biochemistry, Faculty of Medicine

Invention: INFLUSOME-VAC, Three Novel, Highly Efficient Influenza Vaccines

Previous Winners

INVENTOR: MR. HADI ASLAN

Student of Prof. Dan Gazit, Skeletal Biotechnology Laboratory, Faculty of Dental Medicine

Invention: Novel Methods for Stem Cells Based Therapy

INVENTOR: MR. SHAI SHALEV-SHWARTZ

Student of Prof. Yoram Singer, School of Engineering and Computer Science, Faculty of Science

Invention: A Query Melody System

INVENTOR: MR. MICKEY KOSLOFF

Student of Prof. Zvi Selinger, Silberman Institute of Life Sciences, Faculty of Science

Invention: Drug-assisted Catalysis, Novel Cancer Therapeutics

INVENTOR: MR. ABED AL-AZIZ QUNTAR

Student of Prof. Morris Srebnik, Department of Medicinal Chemistry and Natural Products, School of Pharmacy, Faculty of Medicine

Invention: The Synthesis of Novel Di-and Tri-Vinylphosphonates

2002

INVENTOR: PROF. SHMUEL BEN-SASSON

Department of Experimental Medicine and Cancer Research, Faculty of Medicine

Invention: Kin-Ace Technology – A Broad Platform Technology for Disease Control via the Interception of Intracellular Signaling

INVENTORS:

PROF. MICHAEL SELA AND DR. DORON ST EINBERG

Department of Oral Biology, Faculty of Dental Medicine

PROF. MICHAEL FRIEDMAN

School of Pharmacy, Faculty of Medicine

PROF. W. AUBREY SOSKOLNE

Department of Periodontics, Faculty of Dental Medicine

Invention: Periochip-sustained Release Treatment for Periodontal Diseases

INVENTOR: PROF. GERSHON GOLOMB

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Nanoparticulate Drug Delivery Systems for Restenosis Therapy

INVENTOR: PROF. SHMUEL PELEG

School of Engineering and Computer Science, Faculty of Science

Invention: OMNISTEREO: Capturing and Viewing 3D Stereoscopic Panoramic Images

INVENTOR: DR. SHLOMO YITZCHAIK

Department of Inorganic and Analytical Chemistry, Faculty of Science

Invention: Molecular Layer Epitaxy (MLE)

INVENTOR: DR. WILLIAM (BILL) BREUER

Department of Biological Chemistry, Faculty of Science

Invention: A Test for the Detection of Toxic Forms of Iron in Human Plasma

INVENTOR: DR. ITSHAK GOLAN

The Lautenberg Center for Immunology, Faculty of Medicine

Invention: Novel CD44 Variant: Potential Target in the Therapy of Rheumatoid Arthritis

INVENTOR: MR. EYTAN KLAUSNER

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Novel Gastroretentive Dosage Forms

INVENTOR: MS. NINA ISOHERRAREN

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: New Anti-epileptic Drug

INVENTOR: MR. ALEXEI SHIR

Department of Biological Chemistry, Faculty of Science

Invention: Targeted dsRNA Brain Cancer Therapy

INVENTOR: MR. FERNANDO PATOLSKY

Institute of Chemistry, Faculty of Science

Invention: Creating Multi-stress Resistance in Arabidopsis

Previous Winners

INVENTOR: MR. ALEXANDER MAZEL

Department of Plant Sciences, Faculty of Science

Invention: Creating Multi-stress Resistance in Arabidopsis Plants

INVENTOR: MS. LITAL ALFONTA

Institute of Chemistry, Faculty of Science

Invention: An Electronic Sensor to Identify Drug Resistance in HIV Patients

INVENTOR: MR. YOSSI GAFNI

Skeletal Biotechnology Laboratory, Faculty of Dental Medicine

Invention: Vascular Tissue Engineering

INVENTOR: DR. GADI PELLED

Skeletal Biotechnology Laboratory, Faculty of Dental Medicine

Invention: Engineering of Complex Hybrid Tissues

2001

INVENTOR: PROF. EDUARDO MITRANI

Silberman Institute of Life Sciences, Faculty of Science

Invention: Micro-organ Technology for Genetically Engineered Bio-pumps

INVENTOR: PROF. SIMON BENITA

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Drug Delivery through Positively Charged Submicron Emulsions

INVENTORS:

MR. DANNY VINITSKY AND MR. EITAN RAZ

Department of Computerized Information Systems

MR. YEHAVI BOURVINE

Computation Center

Invention: Short Message Service (SMS) Supplied by All Cellphone Operators Sending Short Text Messages to Students' Phones

INVENTOR: DR. ANDREW SHIPWAY

Institute of Chemistry, Faculty of Science

Invention: Novel Technology for the Generation of Electronic Circuits Using a Novel Computer-assisted Printing Method

INVENTORS: PROF. YONA CHEN, PROF. YITZHAK HADAR AND MR. AMIR TOAR

Department of Soil and Water Sciences, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: "RollCom" – A Novel, Simple, and Easy to Operate Composting Apparatus

INVENTOR: PROF. ITAMAR GATI

Department of Psychology, Faculty of Social Sciences, and School of Education

Invention: "Future Directions" Internet Site to Facilitate Career Decision Making

INVENTOR: MS. MIRIAM V. KOTT-GUTKOWSKI

Silberman Institute of Life Sciences, Faculty of Science

Invention: MDRTL Ex-Vivo Kit Measure and Select Effective Multi-drug Resistance Blocker

INVENTOR: MS. SUSANNA TCHILIBON

School of Pharmacy, Faculty of Medicine

Invention: HU-320 Anti-inflammatory Drug

INVENTOR: MR. YEHUDA GIL

The Center for Multimedia-Assisted Instruction

Invention: The Mobile Smart Table-MST Combining Various Multimedia Accessories

INVENTOR: PROF. MARTA WEINSTOCK-ROSIN

Department of Pharmacology, School of Pharmacy, Faculty of Medicine

Invention: Development of Exelon: A Drug for the Treatment of Alzheimer's Disease (AD)

INVENTOR: PROF. MEIR BIALER

Department of Pharmaceutics, School of Pharmacy, Faculty of Medicine

Invention: Valproyl Glycinamide (TV 1901): A New Anti-epileptic (AED) and CNS Drug for the Treatment of Migraine, Neuropathic Pain, and Mania

2000

INVENTORS: PROF. AVNER ADIN AND DR. NICOLAI VESCAN

Assistants: Ms. Rivka Kalbo and Ms. Luba Rubinstein

Division of Environmental Sciences, School of Applied Science, Faculty of Science

Invention: "Electro-Flocculation" for Water Treatment and Reuse

INVENTOR: DR. BARUCH SCHWARZ

School of Education

Invention: The "Kishurim Project"

INVENTOR: MR. ITAI PELES

Computer Authority, Ein Kerem

Invention: IBTS-Internet Based Testing System to Replace Traditional Questionnaires and Written Tests

INVENTOR: MR. REUVAN AMAR

Computer Authority, Mount Scopus

Invention: HUDAP-Hebrew University Data Analysis Package

INVENTOR: MR. MEIR GLICK

Department of Medicinal Chemistry, School of Pharmacy, Faculty of Medicine

Invention: Novel Stochastic Algorithm for Use in Life Sciences, Physics, Telecommunications and Economics

INVENTOR: MR. GIL RONEN

Department of Genetics, Silberman Institute of Life Sciences, Faculty of Science

Invention: Novel Plant Gene "B" and Methods to Genetically Manipulate Color Formulation in Plants

INVENTOR: MR. NIR SITVANI

Department of Animal Sciences, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Antelope-like Stimulating Device to Reduce Stress of Wild Animals in Captivity

1999

INVENTOR: DR. ODED SHOSEYOV

Department of Plant Pathology and Microbiology, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: CBD Technology – Using the CBD Protein to Bind Various Molecules to Cellulose

INVENTOR: PROF. ELISHA TEL-OR

Department of Agricultural Botany and Otto Warburg Center for Biotechnology in Agriculture

Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Azolla Biofilter for Waste Treatment

INVENTOR: PROF. HERMONA SOREQ

Department of Biological Chemistry, Faculty of Science

Invention: Antisense Technology – To Treat Various Neurodegenerative Syndromes

INVENTORS:

MR. YARON BEN-ETZION

Head of Manpower and Payroll

MS. CHAVA SPRUCH

Head of Payroll System, Department for Computerized Information Systems

Invention: A Solution for BUG 2000

INVENTOR: MR. LEON MARGOLIN

Department of Anatomy and Cell Biology, Faculty of Medicine

Invention: A Mask for the Treatment of Headaches

INVENTOR: MR. GADI TURGEMAN

Bone Gene Therapy and Molecular Pathology Laboratory, Faculty of Dental Medicine

Invention: The Reciprocal Differentiation System, Controlling the Level of BMP2 Expression

1998

INVENTOR: PROF. ITAMAR WILLNER

Institute of Chemistry, Faculty of Science

Invention: Layered Electrically-Contacted Enzyme-Electrodes and Antigen/Antibody Assembles for Electrochemical and Piezoelectrical Biosensors and Immunosensor Devices

INVENTORS:

PROF. NISSIM GARTI

Casali Institute of Applied Chemistry, Faculty of Science

DR. YURI FELDMAN

Department of Applied Physics, Faculty of Science

Invention: Time Domain Dielectric Spectrometer (TDDS) for Investigation of Advanced Materials and Medical Systems

INVENTORS: PROF. MICHAEL SCHIEBER, DR. JACOB NISSENBAUM, DR. LEONID MELKHOV AND MS. ASAF ZUCK

School of Applied Science, Faculty of Science

Invention: Polycrystalline Hg 12 X-Ray Detector Plates for Digital Radiology

INVENTORS:

PROF. DAVID AVNIR

Institute of Chemistry, Faculty of Science

PROF. SERGEI BRAUN

Silberman Institute of Life Sciences, Faculty of Science

PROF. OVADIA LEV

Division of Environmental Sciences, Faculty of Science

PROF. MICHAEL OTTOLENGHI

Institute of Chemistry, Faculty of Science

Invention: Reactive Organic Sol-gel Ceramic Materials

INVENTOR: PROF. JOSEPH HIRSCHBERG

Silberman Institute of Life Sciences, Faculty of Science

Invention: Genetic Engineering of Astaxanthin Production in Transgenic Plants

INVENTOR: MR. AMIR ZUKER

Kennedy-Leigh Centre for Horticultural Research, Faculty of Agricultural, Food and Environmental Quality Sciences

Invention: Transgenic Carnation Plants with Novel Characteristics

INVENTOR: MR. GALEN MARQUIS

Institute of Jewish Studies, Faculty of Humanities

Invention: Production of The Hebrew University of Jerusalem Bible Project

INVENTOR: MR. JEHUDA BASNIZKI

Silberman Institute of Life Sciences, Faculty of Science

Invention: Novel Seed-planted Hybrid Varieties of the Globe Artichoke

INVENTOR: MR. ALEXEY KAMYSHNY

Casali Institute of Applied Chemistry, Faculty of Science

Invention: Form III Aspartame

1997

INVENTORS:

PROF. YEchezkel BARENHOLZ AND DR. RIVKA COHEN

Department of Biochemistry, Faculty of Medicine

PROF. ALBERTO GABIZON AND DR. DORIT GOREN

Hadassah University Hospital

Invention: DOXIL – Liposomal Doxorubicin for Cancer Treatment

INVENTOR: PROF. DAPHNE AT LAS

Department of Biological Chemistry, Faculty of Science

Invention: A New Anti-Parkinson's Drug

Previous Winners

INVENTORS:

PROF. NAVA BEN-ZVI

Center for Multimedia Assisted Instruction

MR. DAVID RASHTY

Computation Center

MR. ELI KANAI

Snunit Educational Information System, Faculty of Science

Invention: Snunit Educational Information System

INVENTOR: MR. YOAV SMITH

Faculty of Medicine

Invention: The Dermal Imaging System

INVENTOR: MS. VARDA HERSHKO

Institute of Biochemistry, Food Science and Nutrition, Faculty of Agriculture

Invention: Hydrocolloid Coatings for Food and Agricultural Products

INVENTOR: MR. SHMARYAHU EZRAHI

Casali Institute of Applied Chemistry, Faculty of Science

Invention: Fire-resistant Hydraulic Fluids

1996

INVENTOR: PROF. SHABTAY DIKSTEIN

School of Pharmacy, Faculty of Medicine

Invention: Development of Topically-applied Drugs for the International Market

INVENTOR: PROF. ABRAHAM SZTEJNBERG

Department of Plant Pathology and Microbiology, Faculty of Agriculture

Invention: AQ10: A Novel Biofungicide for the Control of Plant Diseases

INVENTOR: PROF. DAN DAVIDOV AND DR. MICHAEL GOLOSOVSKY

Racah Institute of Physics, Faculty of Science

Invention: High-resolution Millimeter-wave Scanning Microscope

INVENTOR: PROF. CHAIM GILON

Institute of Chemistry, Faculty of Science

Invention: Backbone Cyclization and Cycloscan TM: Novel Technologies for the Fast Discovery of New Peptide Based Drugs

INVENTOR: MR. MICHAEL HOICHMAN

Computer Programmer, Faculty of Medicine

Invention: The "Maestro" Program for Controlling Auditory Experiments

INVENTOR: MR. BARAK HERSHKOVITZ

Faculty of Medicine

Invention: "Biochem Thinker": A New Computer Program to be used by Biochemistry Students as a Tutorial Tool

1995

INVENTOR: PROF. ITAI BAB

Bone Laboratory, Faculty of Dental Medicine

Invention: Osteogenic Growth Peptide (OGP)

INVENTOR: PROF. NISSIM GARTI

Casali Institute of Applied Chemistry, Faculty of Science

Invention: New Emulsifiers

INVENTOR: PROF. YECHAZKEL BARENHOLZ

Department of Biochemistry, Faculty of Medicine

Invention: A Novel Approach to Obtain Efficient and Stable Remote Drug Loading of Liposomes for Clinical Use

INVENTORS: DR. EUGENII KATZ, MS. AZALIA RIKLIN AND MS. RON BLONDER

Institute of Chemistry, Faculty of Science

Invention: Development of Biosensor and Immunosensor Devices

Previous Winners

1994

INVENTORS: DR. B. SCHWARZBURD AND DR. MARCELLO CHAFFER

Department of Animal Sciences, Faculty of Agriculture

Invention: Membrane Vesicles of E. coli as a Potent Non-toxic Vaccine Against Colibacillosis in Poultry

INVENTOR: MR. DUDU RASHTY

Computation Center, Faculty of Science

Invention: The Hebrew University Information Retrieval System

INVENTORS: PROF. HAIM RABINOWITCH AND PROF. NACHUM KEDAR

Department of Field and Vegetable Crops, Faculty of Agriculture

Invention: Development of Long Shelf-life Tomatoes



THE KAYE INNOVATION AWARDS

At The Hebrew University of Jerusalem

June 2023

The Hebrew University of Jerusalem

The Authority for Research and Development

www.research.huji.ac.il

Tel: +972-2-658-6625/6