



The Hebrew University of Jerusalem
85th BOARD OF GOVERNORS 2022

LEADERSHIP
FOR TOMORROW

JUNE 2022

THE KAYE INNOVATION AWARDS





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 pharmaceutical 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: OPENING OPPORTUNITIES TO THE OPENING OF THE WORLD

As the world reopens, behind the closed doors of The Hebrew University labs, our innovative researchers have never stopped their quest for great science. Their persistence through the pandemic has given us more answers, opportunities and most importantly, hope. With every obstacle, we became more determined to find a way, together as a community. To that end, we at Yissum have seen scientists become limitless leaders, taking on struggles and turning them into successes and solutions. This year's Kaye Prize winners have already shown their contribution to science, and with this award they will now have the opportunity to show their contributions to the world. It is our honor to once again partner in the Kaye Prize selection process.

As the Tech Transfer Company of The Hebrew University, Yissum's success depends on the faculties, researchers and students who continue to question, innovate, and discover. It is our distinct pleasure and role to take this cutting-edge research out of the lab and into the world. With over 100 diverse portfolio companies and more than 1,000 licensed technologies, we are proud to be a leading Tech Transfer Company, opening the doors of possibility.

In times like these, students across the world have suffered to find their motivation, with many becoming dropouts before reaching their true potential. This year's Kaye Prize winners, Prof. Emeritus Itamar Gati of the Department of Psychology and his postdoctoral fellow Dr. Michal Philips-Berenstein, have created a tool to decrease dropout rates across the globe. Assessing the often undetectable social and psychological factors, through the Psychosocial Readiness for College (PRC) assessment they developed, academic institutions will be able to identify likely dropouts even before their first day of class. Schools will now have

the opportunity to create tailored programs catering to the individual's needs and weaknesses, offsetting future failures. The PRC assessment is the product of a 10-year ongoing project.

From water purification systems to extending food product shelf life, young researcher Prof. Zvika Hayouka of the Robert H Smith Faculty of Agriculture, Food and Environment, is a leading antimicrobial peptides expert in the fields of agriculture, food, and medicine. Prof. Hayouka is awarded the Kaye Prize for his cost-effective approach to synthesize antimicrobial random peptide mixtures (RPMs) that can be applied in various applications and technologies. His revolutionary, but simple mixture, has unlocked the potential to reduce production costs, with no purification process, which is still required in the current conventional method. This platform technology can be developed for water treatment, food packaging, environment-friendly crop protection agents, food preservatives and even promising antibiotic alternatives. His research has already hit the market with our portfolio company Prevera, established together with The Kitchen (Strauss) Incubator. A second startup, Bountica, was established in 2022, to develop growth inhibitors of fungi in food spoilage applications. This spinout is in partnership with Tel Aviv University and the Fresh Start (Tnuva) Incubator. Two additional spin-outs are now under negotiations.

With a glimpse of hope, you can open the window of possibility. This is what Kaye winner Prof. Rami Aqeilan of the Faculty of Medicine, has done for those suffering from WWOX neurological disorders and MS (Multiple Sclerosis). Over the past five years, inspired by the great advances in gene therapy and funded by several prestigious ERC grants, Prof. Aqeilan successfully took his basic research and transformed

it into applied science, unleashing new innovative treatments for patients around the world. Using CRISPR and patient stem cells, his team was able to discover potential therapeutic intervention strategies, where there have previously been none. This data provided a proof-of-concept for WWOX gene therapy as a promising approach to cure children with WOREE and SCAR12. Prof. Aqeilan's lab continues to redefine the field by developing this innovation in other neurological diseases. In 2021, Yissum commercialized Prof. Aqeilan's platform technology under a 'Research & License Agreement' with Mahzi Therapeutics and continues to pursue additional opportunities for MS, based on the data's promising results. Prof. Aqeilan's knowledge, passion, and continuous interaction with patients, has already given those suffering, a way to heal.

As with all cancers, AML does not have a cure. The challenge has always been targeting the cancer vulnerabilities in acute leukemia. This fact doesn't stop researchers in their pursuit for answers in the lab, and solutions for patients hoping to survive this life threatening disease. Kaye Prize recipient, PhD candidate Ms. Avanthika Venkatachalam, together with Prof. Yinon Ben Neriah of the Faculty of Medicine, has opened up the new possibility of a cure. Unlike current methods focused on anti-cancer drugs tackling individual cancer drivers, their research takes a completely different approach focusing on cancer hubs coordinating multiple oncogenes and cancer cell vulnerabilities. Developing novel small molecule kinase inhibitors in the lab, they have shown great success in selectively eliminating leukemia cells. Ms. Venkatachalam has been an integral part of the team, as they now focus on developing their high-resolution imaging-based method to determine vulnerabilities and resistance in clinical samples of leukemia patients. The research's success has already led to further developments in other deadly diseases like melanoma and colorectal cancer. The lead compound that Prof. Ben Neriah's lab developed was approved as an investigational new drug (IND) by the FDA and is in a phase I clinical trial with great promise of being approved to phase II clinical trials with BioTherx.

Instrumental in developing the Cancer Program, Kaye Recipient PhD candidate Mr. Nadav Wallis of the Faculty of Medicine, has opened up the possibility of a new and powerful approach for the treatment of a wide range of cancers. In addition to this novel approach, the project's focus on 'RNA binding protein Igf2bp1' could play a

complementary role in current therapies for Ras-driven cancers. With the treatments already in in vivo testing, results have indicated success in shrinking the primary tumor and eliminating the metastasis formation. As well as new approaches, the research conducted in Prof. Joel Yisraeli's lab has also shown that there is hope for improving prognosis for similar tumors in the lungs and other areas of the body. As a student, Mr. Wallis has brought his passion and curiosity to the forefront of the work and supported the research in each phase. Mr. Wallis has spearheaded this project from its inception, and his drive and trouble-shooting abilities were crucial in bringing the project to where it is today. Attesting to the market potential of this discovery, the research is already on the path to commercialization.

Many medical issues require treatments that are invasive and often not the best solution for the patient's rehabilitation. Thinking outside the box, or in this case, outside the needle, is the type of ingenuity that opens up new opportunities for drug delivery. Kaye Prize recipient, postdoctoral fellow Dr. Hiba Natsheh of the Faculty of Medicine, has contributed to a new nanotechnology to enhance drug delivery to the brain. Easier than a needle and more effective, this nasal nonvesicular technology bypasses the blood brain barrier (BBB) resulting in rapid and enhanced delivery. The treatment is more effective than water solutions, liposomes or non-vesicular carriers. The advantages of the therapy, guided by Prof. Elka Touitou of the Faculty of Medicine, includes its short onset of action and reduction in drug dose. It is safe and even has fewer side effects. This approach can lead to an actual clinical solution by improving the treatment of CNS disorders including the neurodegenerative diseases such as Multiple Sclerosis, Parkinson's and Alzheimer's. Dr. Natsheh has played a vital role both in the lab and speaking with industry. Her eye for innovation and passion for impact has led her to success in this project and several other commercial opportunities.

Mr. Kaye's generosity and personal commitment to support Hebrew University's researchers in their pursuit for innovation, continues to inspire us and open the doors from lab to industry. We offer him our profound gratitude and extend our earnest congratulations to this year's prize winners.

Dr. Itzik Goldwaser
President & CEO, Yissum

PROF. ITAMAR GATI

School of Education



Prof. Itamar Gati is the Samuel and Esther Melton Professor (Emeritus) at the Seymour Fox School of Education and the Department of Psychology at The Hebrew University of Jerusalem. He is a Fellow of Divisions 17 and 52 of the American Psychological Association; the recipient of NCDAs Eminent Career Award (2010); the Distinguished Achievement Award of the Society for Vocational Psychology (2018); and the 2018 Mifal Hapais/Michael Landau Prize recipient in Educational Research. He was listed among The Hebrew University's Best 24 Innovators (2012).

Prof. Gati's fields of interest include studying and promoting career decisions, developing ways to facilitate the successful transition to higher education, and designing websites to achieve these goals. In his free time, he enjoys playing games and spending time with his grandchildren.



משאבים פסיכוסוציאליים	7	6	5	4	3	2	1
אני מוכן ללמוד	7	6	5	4	3	2	1
אני מוכן להישג תואר אקדמי	7	6	5	4	3	2	1
אני מוכן להשתתף בפעילויות חברתיות בקמפוס	7	6	5	4	3	2	1
אני מוכן להתמודד עם אתגרים	7	6	5	4	3	2	1
אני מוכן להתחבר עם אנשים חדשים	7	6	5	4	3	2	1
אני מוכן להישג תואר אקדמי	7	6	5	4	3	2	1
אני מוכן להתחבר עם אנשים חדשים	7	6	5	4	3	2	1



DR. MICHAL PHILIPS-BERENSTEIN

School of Education

Dr. Michal Philips-Berenstein received her Ph.D. from The Hebrew University's Seymour Fox School of Education in 2020. She is currently a postdoctoral candidate at the Educational Counseling Division; Dr. Yuliya Lipshits-Braziler is her advisor. Dr. Philips-Berenstein graduated summa cum laude from the Department of School Counseling at Tel Aviv University's School of Education. Dr. Philips-Berenstein has devoted her professional life to promoting educational counseling in higher education. Her work focuses on developing data-driven and evidence-based professional educational counseling support systems to assist young adults transitioning into higher education, emphasizing students' persistence from enrollment through to successful graduation. Dr. Philips-Berenstein currently serves as the Head of the Dean's Office at Shenkar College of Engineering, Design, and Art.

RESEARCH DESCRIPTION

Reducing Dropout from Higher Education by Assessing Psychosocial Readiness for College

Promoting college persistence comprises a major challenge for higher education institutions and many NGOs. Psychosocial resources have been identified as key components of college readiness, predicting students' first-year GPA, and persistence beyond scholastic aptitude or socioeconomic status. We focused on six psychosocial resources: *Academic Self-Efficacy* (confidence in one's ability to succeed academically); *Educational Commitment* (commitment to attain an academic degree); *Social Comfort* (integration into a new social environment); *Campus Engagement* (intention to participate in campus activities); *Self-Discipline* (completing academic assignments on time); and *Resilience* (coping with challenges, frustrations, and stress). Students lacking psychosocial resources are at a higher dropout risk.

The Psychosocial Readiness for College (PRC) online questionnaire was developed for early detection of risk factors relating to psychosocial readiness, thus facilitating tailored interventions and fostering increased persistence in college. First-year students rate the degree to which each

of 33 statements describes them (e.g., I tend to postpone tasks until the last minute; *Self Discipline*). Responses are analyzed using evidence-based algorithms. Respondents receive automatic text and graphic feedback depicting their relative strengths on the six psychosocial resources. They also receive recommendations on how to use relevant on-campus support services. A copy of the feedback and recommendations is sent to the students' personal email.

The PRC model detects potential impediments to psychosocial college readiness to facilitate preventive intervention in a timely fashion. Research on 15,500 students has shown PRC assessment to have good psychometric properties. Administering the PRC before the beginning of the academic year enables early detection of at-risk students and identification of areas requiring intervention. Thus, it facilitates the design of workshops that have been shown to significantly reduce college dropout.

Our vision is to disseminate the PRC model to all higher education institutions and enable access to the PRC-based assessment, feedback, and recommendations to all first-year students in Israel.

PROF. RAMI I. AQEILAN

The Lautenberg Center for Immunology and Cancer Research, Faculty of Medicine



Prof. Rami Aqeilan was born in Sheikh Jarrah, Jerusalem. He is a Full Professor at the Faculty of Medicine of The Hebrew University of Jerusalem. He began his academic career at the University of Jordan where he received a B.Sc. in Biology, followed by a Ph.D. from The Hebrew University of Jerusalem. His research aims to decipher roles of gene products of common fragile sites in human diseases. In recent years, Prof. Aqeilan's team focuses on studying the molecular basis of neurological diseases, including epilepsy and multiple sclerosis. His work aims to establish faithful models, study underlying mechanisms, and translating this knowledge into treatment options. He has authored 130 research articles and currently serves as Chairman of the Institute for Medical Research Israel-Canada.

RESEARCH DESCRIPTION

AAV-Mediated Delivery in WWOX-Related Human Neurological Diseases

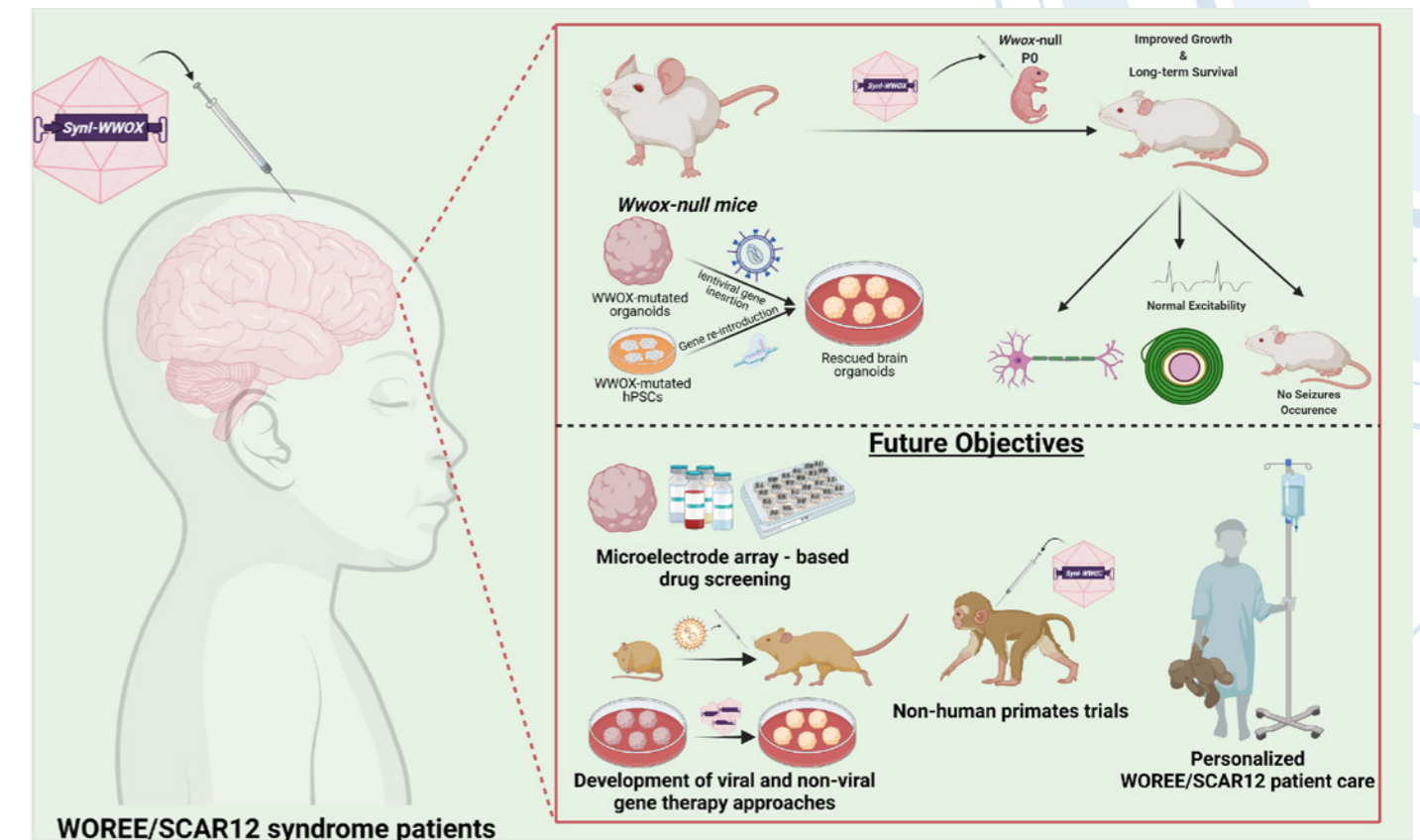
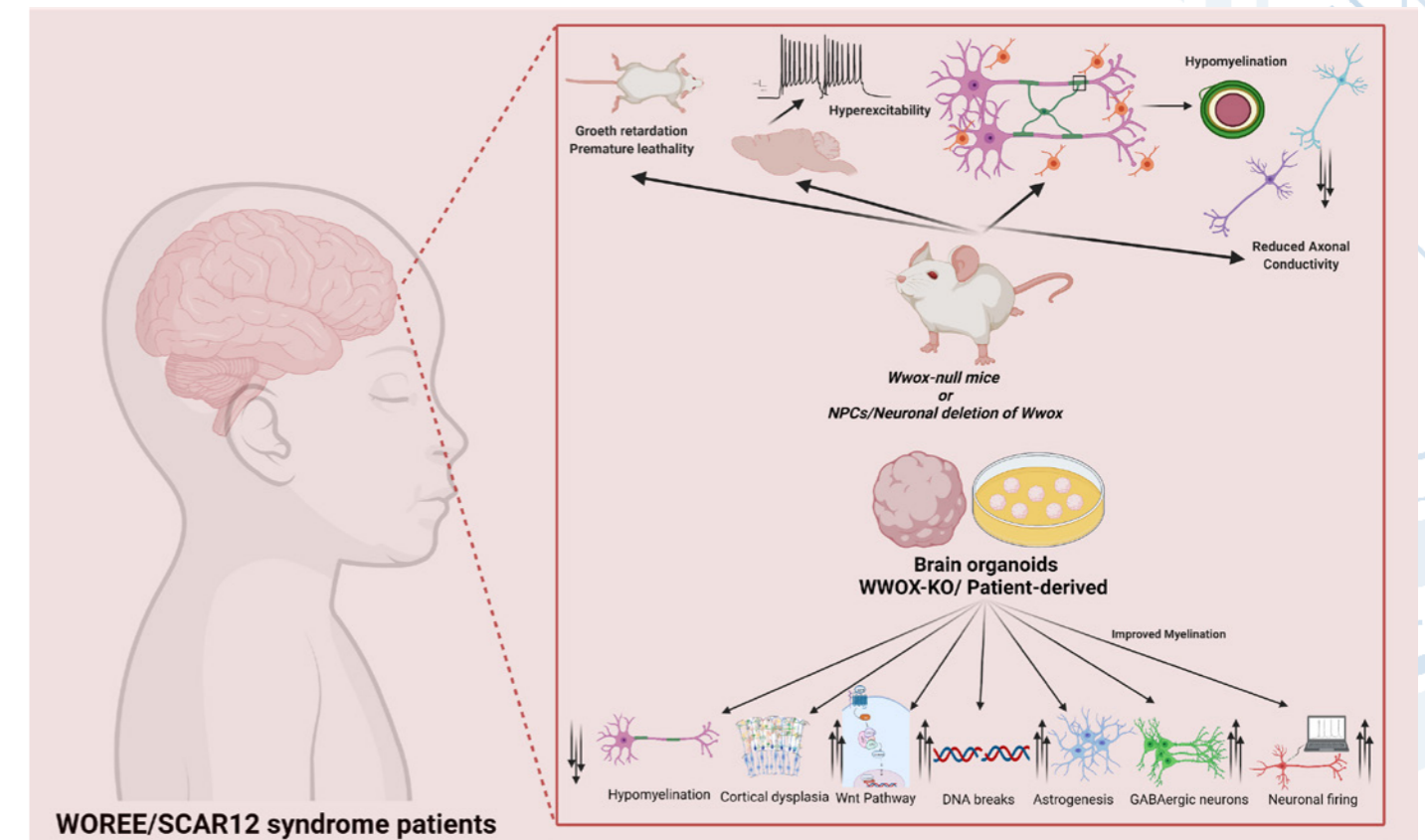
Emerging evidence links gene products of common fragile sites, such as the WW domain-containing oxidoreductase (WWOX), with neurological diseases including childhood epilepsy, multiple sclerosis, and Alzheimer's disease. Patients harboring pathogenic germline bi-allelic WWOX variants have been described with rare devastating autosomal recessive spinocerebellar ataxia 12 (SCAR12) and WWOX-related epileptic encephalopathy (WOREE syndrome). Individuals with these syndromes present with a highly heterogeneous clinical spectrum, the most common being severe epileptic encephalopathy, profound global developmental delay, and premature lethality. No current effective treatment exists for these maladies.

Utilizing mouse genetics, we modelled WWOX loss of function and revealed that specific neuronal WWOX ablation in mice closely mimics the human disease. Moreover, we recently established brain organoids from CRISPR-engineered human embryonic stem cells (hESCs) and from patient-derived induced pluripotent stem cells (iPSCs). Using

this system, we discovered, for the first time, malfunctions in human brain development of WOREE and SCAR12 patients.

Inspired by the great advances of gene therapy success over the last decade, we subsequently attempted to translate our basic research knowledge. To this end, we designed and produced an adeno-associated viral (AAV) vector harboring human WWOX cDNA and driven by the human neuronal Synapsin I promoter (AAV9-SynI-WWOX). Testing the efficacy of AAV9-SynI-WWOX delivery in WWOX mutant mice demonstrated that specific neuronal restoration of WWOX expression rescued the brain defects and accompanied phenotypes of these mice. These data provided a proof-of-concept for WWOX gene therapy as a promising approach to curing children with WOREE and SCAR12 syndromes.

To bring our findings closer to implementation, together with Yissum, we recently licensed our technology to Mahzi Therapeutics, a US-based company focusing on developing treatments for rare genetic diseases. Our project constitutes an exciting journey of bench-to-bed research where patients are at the center—providing us with motivation and passion to achieve our goals.



PROF. ZVI HAYOUKA

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



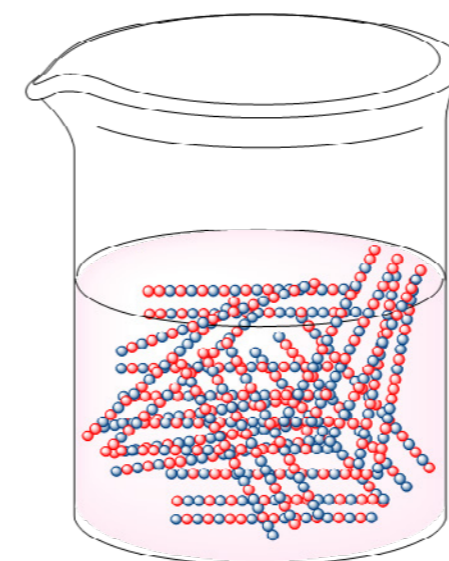
Prof. Zvi Hayouka studied at The Hebrew University of Jerusalem, Israel. He completed his Ph.D. in Chemistry in 2011, under the supervision of Professors Assaf Friedler and Abraham Loyter, graduating summa cum laude. In 2012, as a Fulbright Scholar, Prof. Hayouka relocated to the Department of Chemistry at UW-Madison. Working in Prof. Samuel Gellman's lab, he designed and characterized novel antimicrobial copolymers and peptides. In 2014, he joined the Institute of Biochemistry, Food Science and Nutrition at The Hebrew University as a faculty member. He subsequently established his own research lab that focuses on the development of novel chemical tools to tackle pathogenic bacteria. Prof. Hayouka has published over 65 papers, 10 patents applications, and has recently founded two startup companies.

RESEARCH DESCRIPTION

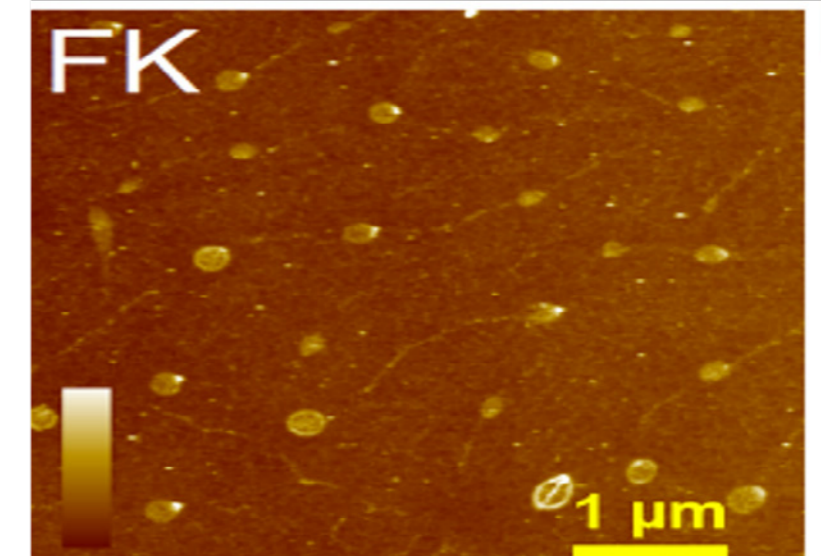
Random Antimicrobial Peptide Mixture to Tackle Bacterial Contamination in Various Technologies

Antimicrobial peptides were proposed as potential agents for the development of new antimicrobial agents, but their high production cost hindered these attempts. We have developed a cheap and easy approach to synthesize antimicrobial random peptide mixtures (RPMs) that have great potential as novel antimicrobial agents for various applications and technologies. Instead of using a single amino acid for each coupling step during the synthesis, we use a defined mixture of two amino acids to generate 2^n sequences of random peptides with a defined composition

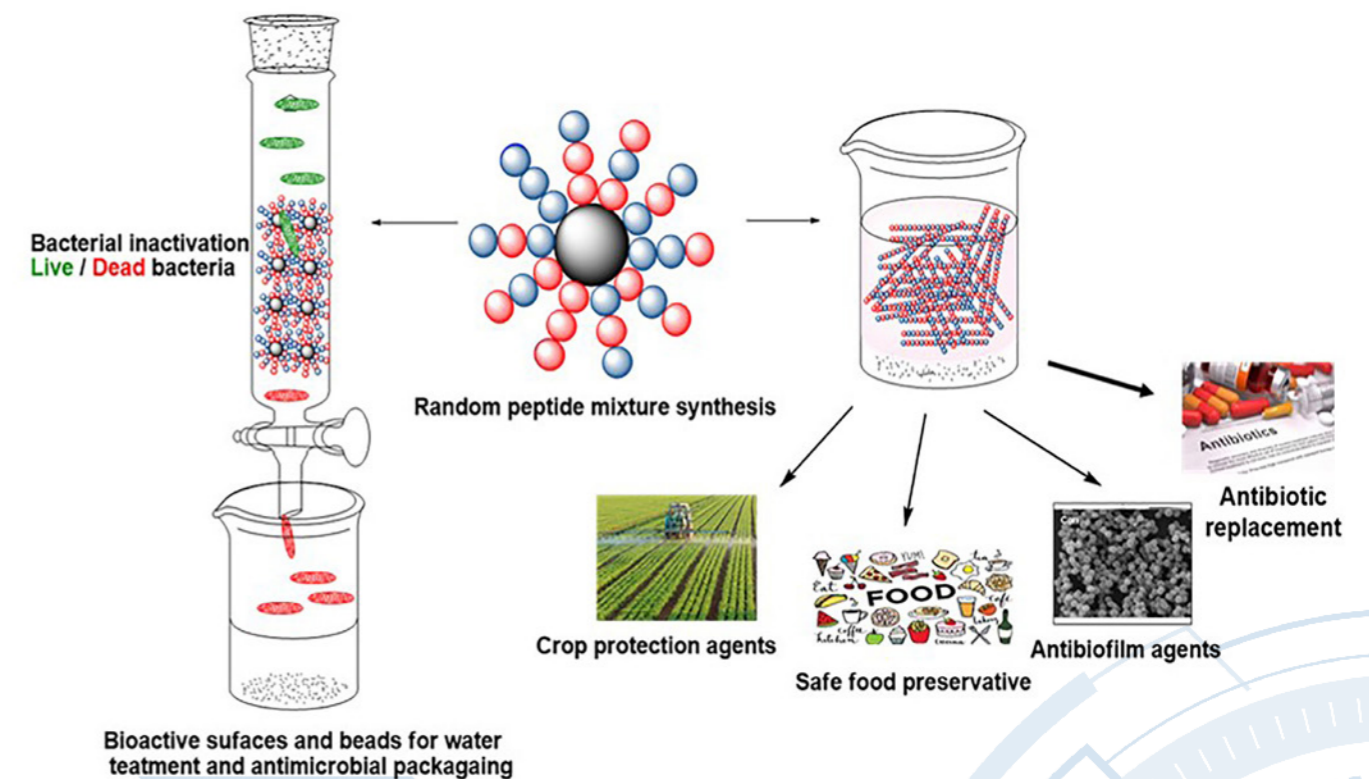
and chain length. This modification significantly reduces the production cost since no purification step is needed after the synthesis, as required in the conventional method. Additionally, the cocktail of peptides will reduce or prevent the development of bacterial resistance. Our analyses demonstrates that random peptides composed of hydrophobic and cationic amino acids display potent antimicrobial activity and high selectivity. We demonstrated that RPMs have tremendous potential to be used as: 1) Safe food preservatives; 2) Bioactive packaging for food products; 3) Treating drinking water; 4) Crop protection agents; and 5) Safe and efficient peptide-based antibiotic agents.



2^n different
sequences
 $2^{20} = 1,048,576$



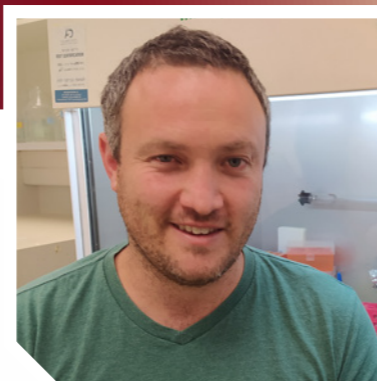
Using random antimicrobial peptide mixture to tackle bacterial contamination in various technologies



1st Prize Student

MR. NADAV WALLIS

Department of Developmental Biology and Cancer Research
Faculty of Medicine



Mr. Nadav Wallis is a 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 of The Hebrew University of Jerusalem. He received his B.Sc. in a combined program of Chemistry and Biology at the Open University and was accepted to the direct Ph.D. Program in Biomedical Sciences in November 2018. He has screened and characterized inhibitors of the IGF2BP1 RNA binding protein as a potential base for cancer therapeutics. He was the recipient of an Early Career Trainee Award at the FASEB Conference on RNA Localization and Local Translation held in Snowmass, Colorado, in 2019. A paper describing Mr. Wallis's initial work was recently published in the journal RNA Biology, featuring Mr. Wallis as the first author. He is also a named co-inventor in a patent by Yisum and Prof. Joel Yisraeli titled "Inhibitors of IGF2BP1 RNA binding."

RESEARCH DESCRIPTION

IGF2BP Inhibitors as a Novel Target for Cancer Therapy

Lung cancer is the most common cause of cancer deaths worldwide, leading to an estimated 1.6 million deaths annually. In lung cancer, mutations in the Kirsten rat sarcoma (KRAS) gene have been associated with poor survival. Unfortunately, attempts at targeting mutant KRAS directly or its downstream effector pathways have been largely unsuccessful (aside from in the G12C KRAS mutation). Therefore, the KRAS mutant still poses a major clinical problem in oncology.

The IGF2BP protein family consists of three highly conserved RNA binding proteins (RBPs) that have important roles during development. The expression of IGF2BP1 is dramatically downregulated after birth, but in many types of cancers IGF2BP1 re-expressed, playing a dominant role in proliferation, apoptosis, resistance to drugs, tumor progression, and metastases. Elevated overexpression of IGF2BP1 has been shown to promote tumor progression and stabilizes a range of mRNAs that encode pro-oncogenic functions, one of which is KRAS. Extensive work in our lab has demonstrated that IGF2BP1 synergizes with mutations in KRAS to enhance signaling and oncogenic activity, and inhibition of IGF2BP1 expression in mouse models inhibits tumor metastases.

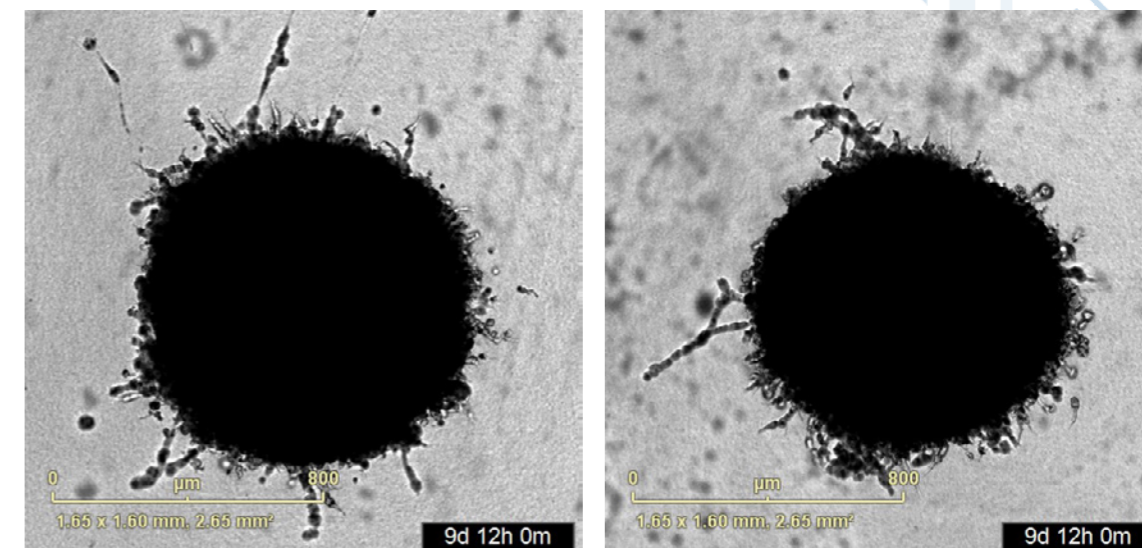
We performed a high-throughput screen for small molecule

inhibitors of IGF2BP1 RNA binding. From the screen, we initially isolated a small molecule titled 7773 that interacts with IGF2BP1 and inhibits binding to KRAS RNA. This compound was validated by orthogonal assays, and structural analysis of the binding of 7773 to IGF2BP1 using NMR demonstrated that 7773 can sterically interfere with RNA binding.

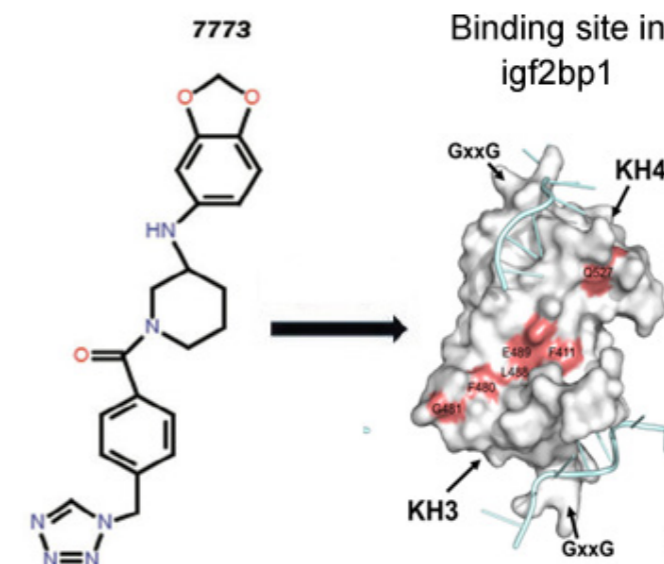
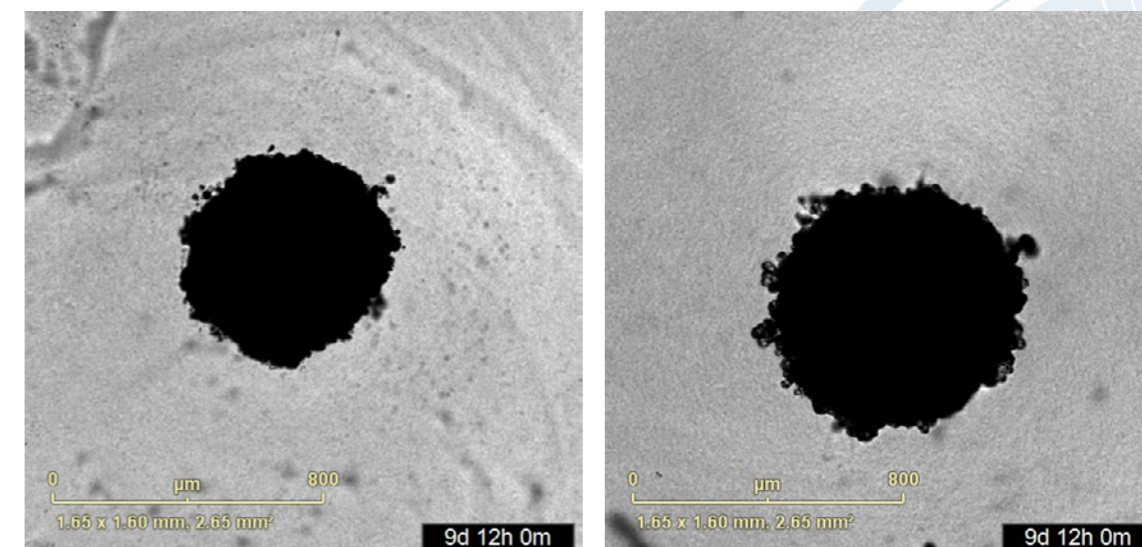
The 7773 molecule was optimized in a second screen, and a molecule, titled AVJ16, was identified with an IGF2BP1 binding K_d of $\approx 1\mu M$. Strikingly, we found that when incubated with AVJ16, tissue culture cells displayed reduced levels of KRAS as well as other IGF2BP1 mRNA targets. AVJ16 lowers KRAS protein, inhibits downstream signaling, disrupts wound healing and growth in soft agar, all without causing cell toxicity. The inhibitor is currently being tested in vivo, showing promising results in syngeneic xenografts, where injections of AVJ16 shrinks the primary tumor and virtually eliminates metastases in mice.

Given the correlation between elevated IGF2BP1 expression and poor clinical outcome, the specific activation of IGF2BP1 in a wide variety of cancers and the low (virtually non-detectable) expression in normal adult tissues, inhibiting IGF2BP1 function constitutes a potentially powerful approach for targeted anti-cancer therapy in lung—and potentially other—cancer(s).

Non-treated



Treated



2nd Prize Student

MS. AVANTHIKA VENKATACHALAM

The Lautenberg Center for Immunology and Cancer Research
Faculty of Medicine



Ms. Avanthika Venkatachalam is a doctoral candidate in Prof. Yinon Ben Neriah's lab. Her research spans a range of leukemia cell biology, from basic science to drug development with translational impact. Her two primary research areas are: (1) Understanding and targeting the differences in transcription between leukemic cells and a normal blood cell; and (2) Developing a state-of-the-art method to visualize oncogenic features modulating drug response in cancer cells. Ms. Venkatachalam received the Toronto Alumni and Friends Prize in Cancer Research, Excellence Scholarship for Ph.D. studies, and is a patentee for contributing to drug development with Prof. Ben Neriah and Yisum. This drug is currently under an open-label, phase I clinical study in patients with R/R AML or high-risk MDS.

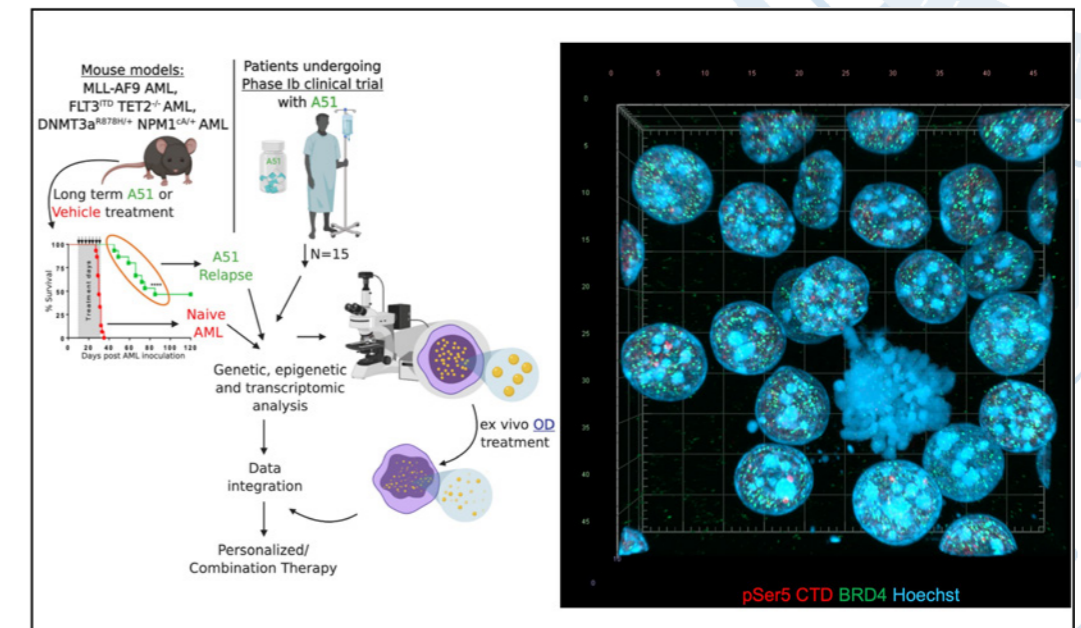
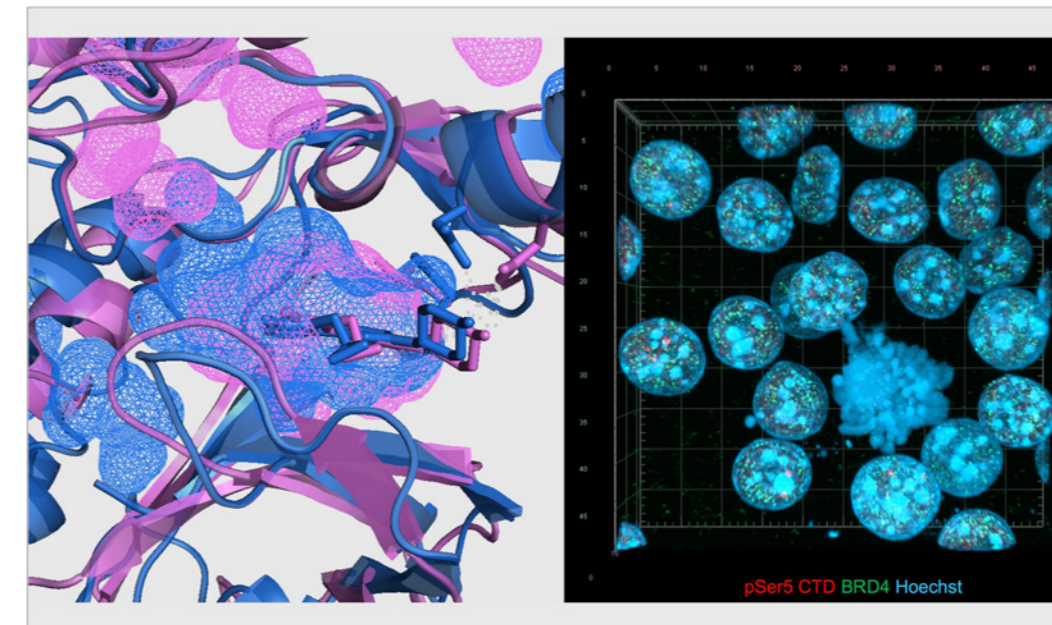
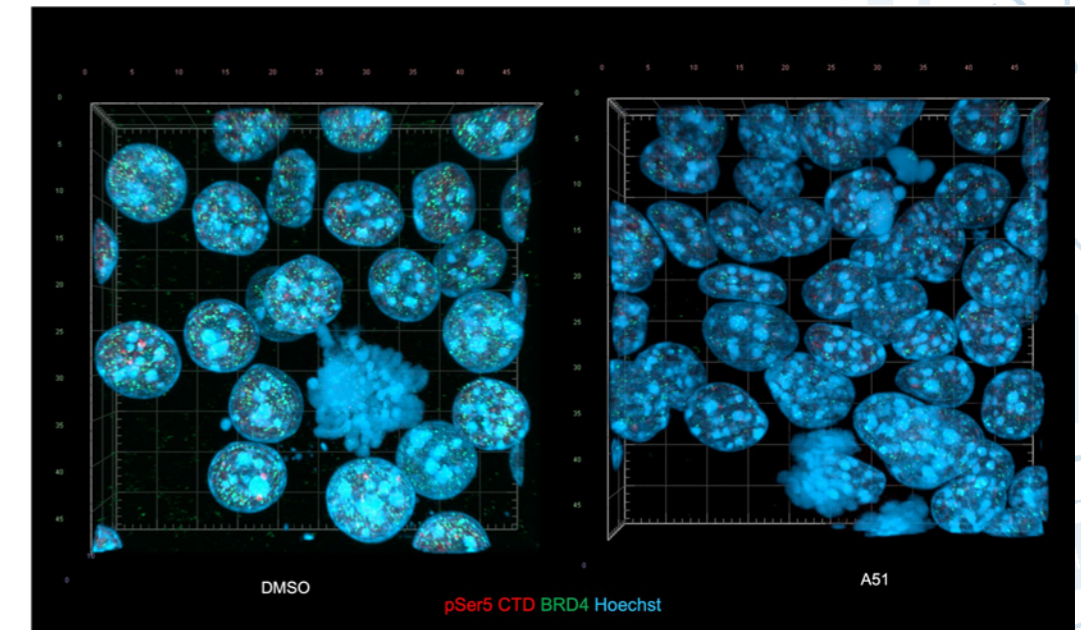
RESEARCH DESCRIPTION

Targeting Cancer Vulnerabilities in Acute Leukemia

Acute Myeloid Leukemia (AML), like many cancer types, harbors distinctive vulnerabilities, prominent among which are cell death resistance control and transcriptional addiction. Dysregulation of gene expression programs due to genetic alterations can create dependencies on transcriptional regulators, making tumor cells more sensitive to inhibition of these regulators than normal cells, which are inherently more robust to perturbations. Cancer-specific transcription programs are often associated with super-enhancers (SEs), created de novo in cancer cells as part of the transcriptional dysregulation, implying that these de novo SEs may be an Achilles' heel of cancer cells, subject to drug targeting. Novel small molecule kinase inhibitors developed in our lab selectively kill leukemia cells and show capability to cure leukemia in several mouse models.

The therapeutic efficacy of the inhibitors denoted "oncodestructors" (ODs) is largely due to blocking a unique array of protein kinases that are essential for building

or maintaining de novo generated leukemia SEs. Major efforts of anti-cancer drug development today is directed at tackling individual cancer drivers. Guided by precision therapy, ODs represent a different approach, aiming to affect cancer hubs coordinating multiple oncogenes and cancer cell vulnerability protectors at once. ODs simultaneously abolish the expression of many leukemia drivers and vulnerability protectors, among which is Mdm2, the major negative regulator of p53, resulting in enhanced leukemia cell apoptosis. We now aim to study which molecular properties are essential for creating an oncodestructor and the mechanistic basis by which ODs disrupt oncogenic super-enhancers. To this end, we developed a high-resolution imaging-based method for visualization ODs and to identify OD vulnerabilities and resistance in clinical samples of leukemia patients. The lead compound we developed was approved by the FDA as an investigational new drug (IND) and is undergoing a phase I clinical trial in treatment refractory and relapsing MDS and AML patients, with great promise of being approved to phase II clinical trials.



DR. HIBA NATSHEH

Department of Pharmaceutics, School of Pharmacy
Faculty of Medicine



Dr. Hiba Natsheh is a postdoctoral fellow in Prof. Elka Touitou's laboratory of the Innovative Dermal, Transdermal, and Transmucosal Drug Delivery, Institute for Drug Research, Faculty of Medicine, The Hebrew University of Jerusalem.

Her work currently focuses on nasal drug delivery to the brain. Dr. Natsheh is a co-author of ten scientific articles, all published in indexed journals. Additionally, she is a co-inventor of five international patent applications. She has attended several international drug delivery conferences, and was an invited speaker at some of them.

RESEARCH DESCRIPTION

A New Nanotechnology for Enhanced Drug Delivery to the Brain

Dr. Hiba Natsheh contributed to an invention, under the supervision of Prof. Elka Touitou, which presents an innovative nanovesicular technology—the Phospholipid Magnesome (PM). This breakthrough allows the enhanced delivery of drugs to the brain through nasal administration. The results obtained in animal models suggest a direct nose-to-brain pathway that bypasses the blood-brain barrier (BBB) resulting in rapid and enhanced delivery and efficient treatment.

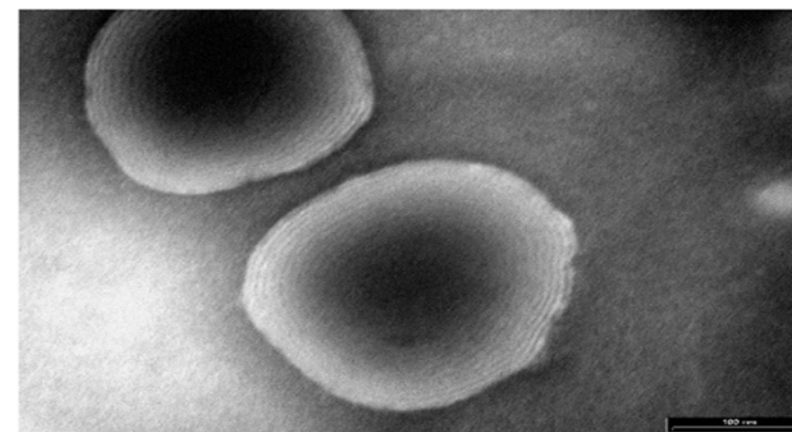
PM is composed of multilamellar phospholipid vesicles with a size range of hundreds of nanometers. The brain delivery of insulin and epidermal growth factor (EGF) incorporated in PM was eight times higher compared to a water solution (WS), or a liposome (Lipo) or a non-vesicular carrier (NV). Furthermore, near-infrared (NIR) brain imaging showed a high accumulation of EGF in the cerebrum and in the olfactory bulb at only ten minutes after nasal administration of EGF-PM.

Another example is the significant enhanced analgesic effect obtained in an animal model of pain for oxytocin-PM compared to several different systems. PM is safe for local administration on the nasal membrane, as indicated by histopathologic examination.

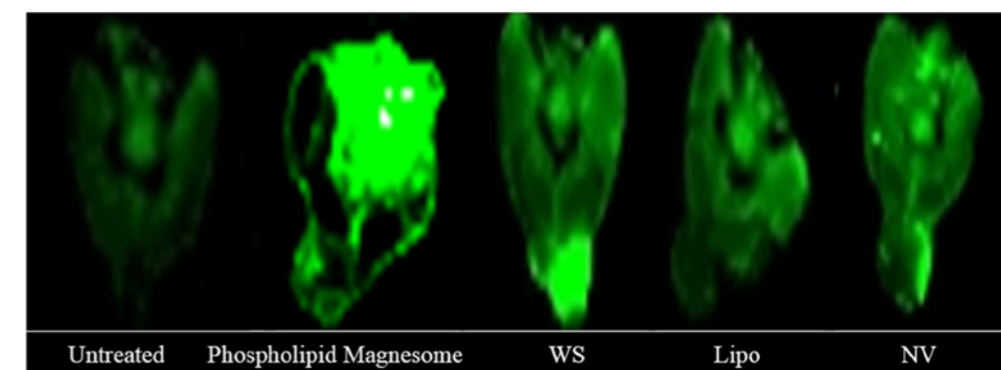
Nasal administration of central acting drugs in this novel nanosystem has many advantages, such as a short onset of action and reduction of the drug dose—and fewer side effects. This approach can lead to an actual clinical solution by improving the treatment of CNS disorders including neurodegenerative diseases such as Parkinson's disease, Alzheimer's disease, and multiple sclerosis.

An important advantage of the nasal products is patient compliance related to the needle-free product packed in applicators (sprayers or drops) for patient self-administration.

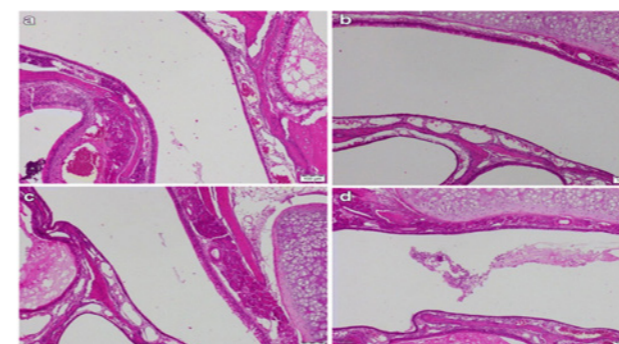
This innovation is now in the national phase of patent application.



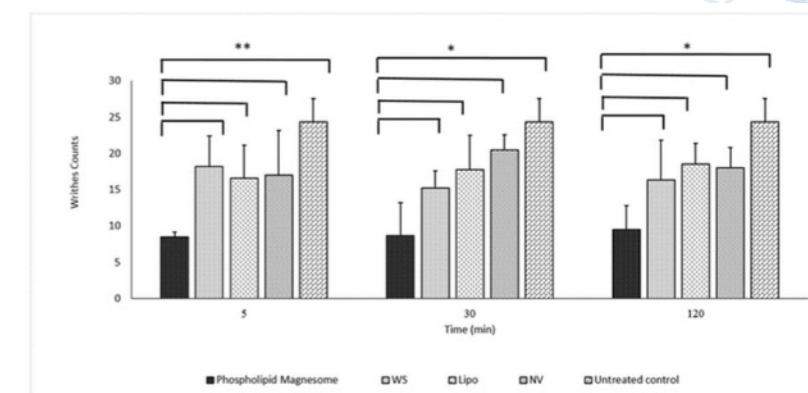
Representative transmission electron micrograph (TEM) of Phospholipid Magnesome system, × 135k (Philips TECHNAI CM 120 electron microscope, Eindhoven, The Netherlands)



Nasal delivery of EGF to brain; NIR imaging of brain of mice treated with 1 mg/kg EGF IRDye® 800CW incorporated in Phospholipid Magnesome or in water solution (WS), liposome (Lipo) and nonvesicular carrier (NV)



Local safety of Phospholipid Magnesome: Micrographs of nasal cavities excised from rats that (a) received no treatment or treated with (b) Phospholipid Magnesome system, (c) normal saline (NS), and (d) sodium lauryl sulfate (SLS) nasal solution



Pain expression (withes count) in mice model of pain treated with oxytocin at a dose of 0.4 mg/kg incorporated in Phospholipid Magnesome system or in water solution (WS), liposome (Lipo) and nonvesicular carrier (NV)

KAYE - EINSTEIN SCHOLARSHIPS

2021/2022

THIRD YEAR RECIPIENTS

HAGAI LAVNER, PH.D. CANDIDATE IN MATHEMATICS

Faculty of Science

ELAD ROMANOV, PH.D. CANDIDATE IN COMPUTER SCIENCE

Benin School of Computer Science and Computer Engineering

ODELIA TEBOUL, PH.D. CANDIDATE IN ASTROPHYSICS

Faculty of Science

EDEN KAMAR- Z Aidner, PH.D. CANDIDATE IN CRIMINOLOGY

Faculty of Law

SECOND YEAR RECIPIENT

HAYM DAYAN, PH.D. CANDIDATE

Paul Baerwald School of Social Work and Social Welfare

KAYE INNOVATION AWARDS

AT THE HEBREW UNIVERSITY OF JERUSALEM

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 SARAGОВI

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. RAYM OND 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

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

INVENTOR: MR. HADI ASLAN

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

Invention: Novel Methods for Stem Cells Based Therapy

Previous Winners

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: OMNISTERO: 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

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

Previous Winners

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. YECHESKEL 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

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

Rachah 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

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



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