Rambam ISSUE NO.30 | DECEMBER 2022

SHAPING THE FUTURE OF **CARDIOVASCULAR MEDICINE Professor Gepstein on the** future of cardiac care

0

FLYING HIGH AT RAMBAN Professor Bolotin navigates complex procedures

JOINT RAMBAM AND STANFORD MEDICINE SYMPOSIUM

Global Medicine

'HORIZONS IN CARDIOLOGY 2030' International conference

> UNITED WE STAND 022 Rambam

Summit

RAMBAM Health Care Campus SPECIAL EDITION THE EYAL OFER HEART HOSPITAL

מואר

TABLE OF CONTENTS

Rambam on call · SEPTEMBER 2022 · ISSUE #30



FROM THE DIRECTOR Professor Miki Halberthal



ECMO & LVAD Two game-changing interventions



ELECTROPHYSIOLOGY Get the picture!



A CONVERSATION WITH PROFESSOR RAFI BEYAR He has seen the stuff of dreams come true



BEHIND THE SCENES Eval Ofer Heart Hospital built to order

UNITED WE STAND 2022 Rambam Summit



EOHH IN NUMBERS



FROM AFAR Remote cardiac rehabilitation is now on hand



PROF. GEPSTEIN The future of cardiovascular medicine



procedures



FLYING HIGH AT RAMBAM Professor Bolotin navigates complex



UNDER

passions



INTERNATIONAL COLLABORATIONS Rambam's impact on global medicine





INTERVENTION It's our business



TO OUR CHILDREN With all our hearts



SHARING IDEAS 'Horizons in Cardiology 2030' - international conference



HEROES DOING THEIR DUTY Nursing is their calling, and saving lives is their motivation



INVESTIGATION Two physician-scientists share their research





DONOR PROFILE Eval Ofer



SPECIAL EVENTS



Director General: PROF. MICHAEL HALBERTHAL

STATE OF ISRAEL MINISTRY OF HEALTH

Published by the Department of International Relations & Resource Development

Director of the Department of International Relations & Resource Development: DR. ESTY GOLAN

Editor-in-chief: INBAR SHAHAF

Senior Editor and Production: SHIRLEY ERULKAR

Writer: SUZANNE SUCKERMAN

Special Thanks: NETANEL AYZIK MIRIAM GLUECK YOSEF VAYNER DEBBIE HEMSTREET IDAN BEN ASHKENAZI

Photography: COURTESY OF RAMBAM HEALTH CARE CAMPUS, RAANAN TAL, MICHA BRIKMAN

THE JERUSALEM POST

CEO Jerusalem Post Group INBAR ASHKENAZI

V.P of Commercial & Strategic Partnerships GALIT EREZ GALITE@JPOST.COM

Graphic Design and Concept: NOA ZOLTY

Advertising TEL: +972 3 761-9002

Letters to the Editor: ROC@RAMBAM.HEALTH.GOV.IL

Cover Photo: THE EYAL OFER HEART HOSPITAL

FROM THE DIRECTOR PROFESSOR **MICHAEL** HALBERTHAL

GOLDHAR

FAMILY

DEAR FRIENDS.

SALLY

ASHENFARE

It gives me great pleasure to present you with the latest issue of Rambam on Call, dedicated to the opening of the Eyal Ofer Heart Hospital. We will shed light on several cardiology departments and units, some of which have already been relocated and others that will transfer in the future. Under the spotlight, you learn more about our Department of Cardiac Surgery, integral to this new and advanced facility for providing a holistic approach to all heart disciplines under one roof. I cannot stress enough how important this new heart hospital is for serving the people of Northern Israel.

This year's 2022 Rambam Summit was a particularly moving event. We were thrilled to welcome friends from near and far, and to celebrate Rambam's achievements since the last Summit, held three years ago. We especially want to thank our esteemed guests from around the world, including Eyal and Marilyn Ofer, Olivia Ofer, Meri Barer, Herta Amir, Tatyana and Alan Forman and their family, Cathy and Danny Rosenkranz, Levy Gerzberg, Rachel Jonas, Albert Frank and his family, members of our friends organizations from the USA, UK, and France, as well as many friends and supporters from Israel. Summit activities including the official opening ceremonies of Eyal Ofer Heart Hospital and the Patricia and Albert Frank Family Cardiac Inpatient Department. You can read more about the Summit and the ceremonies in this issue.

A national patient survey recently named Rambam as one of Israel's top hospitals. I am proud of our medical teams that helped us achieve this recognition by providing our patients compassionate and professional care. And I am thankful to all those who have helped us do so by contributing to essential equipment, building renovations, and the construction of new world-class facilities.

In September, we opened the refurbished Herta and Paul Amir Department of Internal Medicine A. This was the first and pivotal step in the refurbishment of the Herta and Paul Amir Internal Medicine Building that would not have been possible without our dear friend Herta Amir and her late husband Paul Amir z"l. In addition, we recently opened the newly renovated, expanded, and equipped MRI Institute as part of a special collaborative research project with the University of Haifa. This essentially new facility will not only benefit our patients. It will provide Rambam's physician-researchers and university's researchers state-of-the-art labs for their collaborative projects. I am certain this "new" institute will become fertile ground for innovative research that will further cement Rambam at the forefront of medical research discovery.

0

Two new surgical suites are currently under construction and scheduled to open by next summer. Their completion will dramatically reduce the waiting period for elective surgeries, thereby improving the quality of life of the resident of our region.

Philanthropists and longtime supporters of Rambam, Andrea and Laurence Wolfe, recently announced the establishment of the Andrea and Laurence Wolfe Center for Translational Medicine and Engineering, a joint Rambam-Technion center-intertwining engineering and medicine to promote novel technologies for the benefit of humankind, and will, most suitably, be located in Helmsley Health Discovery Tower.

We are deeply thankful for the ongoing and generous support of several long-time friends of Rambam, including: The International Fellowship of Christians and Jews for their significant donation toward the purchase of a critically needed CT scanner. The Eyal Ofer Heart Hospital has been gifted with two much needed facilities: We are thankful to Teri and Barry Volpert for the establishment of the Cardiac Imaging Center and to Deborah and Howard Jonas for donating a heart catheterization lab. All these facilities will proudly bear the donors' names.

A few months ago, we had to say a sad farewell to two of our dear, long-time friends: Goldie Feldman z"l and Karen Green z"l - mother and sister of David Green, President of the Canadian Friends of Rambam. Goldie and Karen were cherished members of the Rambam family. May their memories be for a blessing, and may all those who feel their loss, be comforted among the mourners of Zion.

I am pleased to announce that the 2023 Rambam Summit will be held from May 30 - June 1. It is sure to be an unforgettable event as we mark Rambam's 85th year. The Rambam Award will be bestowed upon four friends and donors who have made a mark in history and who

will join the esteemed list of incredible past recipients. We invite each of you to visit and attend the Summit. The past three years were challenging. However,

thanks to our amazing leadership and 6,300 dedicated employees, we are, together, forging ahead for a better future

Best regards,

Miles Halbertene

Michael Halberthal, MD **Clinical Associate Professor** General Director, Rambam Health Care Campus

Rambam on call · DECEMBER 2022

FACTS AND **FIGURES***



* Refers to entire building, including ongoing construction and unfinished floors.





3 ELEVATORS

UPS (UNINTERRUPTABLE **POWER SYSTEM) ELECTRICAL** SYSTEM

MAIN LOBBY

2 ELECTRICAL BACKUP **SYSTEMS**

Rambam on call · DECEMBER 2022

INTERVENTION /S OUR BUSINESS

his has been an exciting year for Rambam's Unit of Interventional Cardiology, culminating in the official opening of The D. Dan & Betty Kahn Foundation Center for Interventional Cardiology in the Eyal Ofer Heart Hospital.

Dr. Arthur Kerner, Director of the Unit of Interventional Cardiology, explained: "In the state-ofthe-art Center, we perform a wide array of diagnostic and interventional cardiac procedures in children and adults, including electrophysiological interventions, structural and valvular procedures, and congenital heart interventions."

The new Center is equipped with advanced technology and equipment. A Philips Azurion 7 M20 cardiac imaging system, considered to be at the forefront of clinical care, was deployed in two of the cath labs, a substantial step forward for Rambam.

"In the last year, we made major procedural strides thanks to new platforms and experienced personnel, allowing us to integrate real-time multiple imaging modalities on our screens. We are now routinely performing complex valve interventions and further improving procedural accuracy and reducing the rate of complications," Kerner continued.

The center also performs a cutting-edge procedure for treating life-threatening blood clots in the lungs of patients at high risk for complications. During this procedure, a catheter deploys ultrasound waves and delivers a low-dose thrombolytic agent into the clot, quickly dissolving it. Significantly smaller doses of the thrombolytic agent are required - optimal for Rambam's high-risk patients.

"With only minutes to decide, our response must be almost automatic, effectively utilizing multiple systems, modalities and technologies. The expertise, experience, and talents of our dedicated, multidisciplinary team, must all come together and work as one. Whether it's the clinical trials we've carried out or the multiple procedures we have pioneered in Israel, we can all be proud of the work done at Rambam," Kerner concluded.

ECMO & LVAD **TWO GAME-CHANGING INTERVENTIONS**



 Professor Benjamin Medalion. Attending Cardiothoracic Surgeon Department of Cardiac Surgery

hen the heart and lungs can no longer oxygenate the blood and patients require resuscitation, they are attached to an ECMO (extracorporeal

membrane oxygenation) device. Dr. Zvi Adler, Attending Physician, Department of Cardiac Surgery, Advanced Heart Failure Center, Department of Cardiology, explained, "Although temporary, ECMO is a lifesaving intervention for patients who would otherwise die. ECMO facilitates cardiac and respiratory support to patients whose heart and lungs can no longer provide an adequate amount of gas exchange to sustain life."

For advanced heart failure patients, where ECMO is not a reasonable longterm solution, a permanent solution is necessary, and a durable LVAD (Left Ventricular Assist Device – an

to the heart) is an answer. "At Rambam, the LVAD is implanted in a novel procedure that replaces the major surgery conducted so far in Israel. During this procedure, the LVAD is implanted during minimally invasive surgery with a minor thoracotomy in two points at the chest instead of a sternotomy" says Dr. Oren Caspi, Director of the Heart Failure Unit and Head of Rambam's Cardiovascular Research & Innovation Center. The LVAD pumps blood from the left ventricle into the aorta and maintains blood flow to the entire body, replacing left ventricular functionality. A driveline runs from the pump to the patient's abdominal wall through the skin and connects batteries that charge it and a micro-computer that manages the pump. LVAD patients have no natural cardiac vital signs, which requires

Dr. Arthur Kerne

ECMO AND LVAD



Dr. Oren Caspi, Director, Heart Failure Unit and Head of Rambam's Cardiovascular **Research & Innovation Center**



 Dr. Zvi Adler, Attending Physician. Department of Cardiac Surgery, Advanced Heart Failure Center, Department of Cardiology

external mechanical device attached

medical staff treating those patients to undergo special training.

Professor Benjamin Medalion, Attending Cardiothoracic Surgeon, Department of Cardiac Surgery, performs highly specialized LVAD surgery at Rambam.

"Before LVAD, patients are weak but enjoy life soon after. They would die without it. The LVAD battery pack is a bit large and cumbersome. I hope the next generation will be smaller and utilize new technologies for data collection and patient follow-up. That would be a great improvement," Medalion concluded.

Caspi concluded by saving "Rambam has recorded a one-hundredpercent survival rate with the LVAD. was delighted to hear that our first patients, Amna Hijazi, who received one 3-years ago, recently took center stage when she danced the night away at her grandson's wedding."



CAN'T CHANGE THE PAST, **BUT YOU CAN CHANGE** YOUR **HEART'S FUTURE!**



▲ Dr. Oren Caspi, Director of the Heart Failure Unit and Head of Rambam's Cardiovascular Research & Innovation Center

medically supervised cardiac other metrics. rehabilitation, with a focus on physical activity, is recommended and in the digital age, the most effective way of managing it, is remotely.

Comprehensive medical examinations can be conducted remotely, in real-time, via cloud-based technologies. It's guite easily done! An app. a computer, a watch...

At Rambam's Heart Failure Unit, the patient is fitted with a smartwatch that monitors and measures: heart-

ollowing a cardiac event, rate, pedometer, physical activity and

complete medical history, our patients meet with Rambam's expert, personal PT instructor, Gilad Arotchas, who builds and coordinates an exercise routine, tailored to their personal preferences. Next, they meet with cardiac rehabilitation nurse Iris Eisen. who helps them to adapt a healthier lifestyle, to reduce risk factors for intervals. cardiovascular events.

Once discharged, patients integrate



Personal PT Instructor, Gilad Arotchas during a session with a patient

the exercises and lifestyle program into their daily routine. Arotchas, After collecting lifestyle data and a Eisen and other team members meet with the patient weekly, via Zoom conference. Patient data, collected by the smartwatch and stored on the cloud, is accessed and reviewed. A Zoom-meet with the nurse is conducted every second week and with a physician like Dr. Boaz Elad. who manages the team, at six-week

"Physical activity is one of the best ways of improving the health of your heart after a cardiac event," said Dr. Oren Caspi, Director of the Heart Failure Unit and Head of Rambam's Cardiovascular Research & Innovation Center. "When cardiac rehabilitation was center-based, 50 percent quit. Now, that Rambam offers home-based rehabilitation, our patients are more compliant; they enjoy the technology, the freedom to choose their preferred activity and the rapport and trust they establish with their tertiary caregivers. Eighty-five percent of our patients complete the program, just because they can do it from home. It's a breakthrough!" Caspi concluded.

WE GIVE OUR HEARTS TO THESE CHILDREN

was an unforgettable moment when Mrs. Herta Amir, a treasured friend of Rambam, was introduced to one our pediatric cardiology patients, a sweet 6 year old girl, who had undergone an astonishing 22 heart catheterizations in her young life.

It is devastating when parents receive news that their child is critically ill with cardiovascular disease. But the Herta and Paul Amir Pediatric Cardiology Institute is providing these families with new hope. The Institute diagnoses and treats congenital heart defects in fetuses, newborns, children, and youth. The Institute's skilled team performs ground-breaking pediatric heart-valve transplants and other advanced cardiac procedures. The Institute also collaborates with the Eval Ofer Heart Hospital's medical teams and utilizes its advanced facilities.

"These children are facing the biggest hurdle of their lives; their families are scared and face a future filled with uncertainty," said Dr. Assad Khoury, Director of the Herta and Paul Amir Pediatric Cardiology Institute.

Sometimes congenital heart defects are diagnosed in-utero, and treatment must commence immediately. It is very distressing for a pregnant couple; and the first step is establishing a trusting relationship with them.

The Institute deploys a holistic approach to treatment. The multidisciplinary team is passionate about their work. They are steadfast in achieving the best outcome for Rambam's young heart patients and their families.

"The Institute sees some 20 children every day on an outpatient basis. Usually, each day two or three require specialized treatment like catheterizations. Over the years, the Center has treated thousands of young heart patients who required hospitalization.

"When one of my patients is discharged, and followup care can be managed in the community, I am thrilled. The greatest reward is seeing their smiling faces, and a return to better health for years to come," Khoury concluded.



▲ Dr. Assad Khoury



▲ Mrs. Herta Amir meeting the young patient during her visit to the Herta and Paul Amir Pediatric Cardiology Institute



GET THE PICTURE!

h e the directorship of Professor medical practice since the early Mahmoud Suleiman, diagnoses and treats various cardiac rhythm disorders, implants defibrillators and pacemakers, and performs catheter ablation procedures.

coronary procedure for a patient, is predictions for future practices in multidimensional image of the

Electrophysiology Unit diagnosis. While cardiac imaging -(LFEU) at Rambam, under echocardiography, has been routine 1970's, every subsequent decade has clear visual images of the heart. seen technological advancements and refinements.

A positive outcome of a complex of technology, combined with solid

Levine Family dependent on an accurate, real-time, cardiology. The state-of-the-art Unit incorporates ultrasound, MRI and CT imaging, nuclear medicine and an electrophysiology laboratory to obtain

> It's all in a day's work for the highly skilled, interdisciplinary Today, the LFEU in the Eyal Ofer electrophysiology team of the Heart Hospital benefits from decades LFEU, who synthesize diverse mapping techniques to create a

the heart muscle and identify any abnormalities and arrhythmias. During any given procedure, the medical team must navigate, manage and interpret multiple modalities and metrics in the fastest time possible injury. Now, without the need to cut operating time down to a for anesthesia, the new minimum.

Unit is leading the way in Israel, vein of the leg and perform and is involved in many local and a catheterization while the international research studies.

procedure he implemented at recovery time is faster." .

heart's anatomy, in order to stimulate Rambam recently, for patients who are unable to take blood-thinning medications: "Usually, under full anesthesia, we insert an ultrasound device into the patient's esophagus which can cause esophageal procedure allows us to insert Rambam's Electrophysiology an ultrasound device into a patient is fully conscious. Suleiman described a novel It's groundbreaking and



"We predict a number of trends that will shape cardiology for decades to come. Due to the reduction in cardiovascular mortality and the aging of the population, we expect to see continuous growth in the number of patients with chronic heart conditions such as congestive heart failure, which is becoming an epidemic, cardiac rhythm disorders and degenerative valvular disease. On the other hand, heart patients admitted to the hospital nowadays are much sicker than those we used to see in the past," said Gepstein.

Gepstein explained that the vison for the Heart Hospital addresses multiple components, including: trends in patient populations; changes in medical disciplines and specialties: inpatient, outpatient and community care; remote care, wearable sensors and telemedicine; on-going patient communication: the impact of the information and digital age - Al, machine learning and big data; as well as personalized, precision medicine based on genotypes and molecular and cellular analysis.

He continued, "Rambam is recognized for having some of the best diagnosticians, the highest levels of care and some of the most effective treatments. But we must also develop a program that defines the future role and interactions between the hospital, the primary care physicians and the cardiologists in the community, to allow optimal continuity in care."

Israel leads the way in medical innovation and Rambam's physicianscientists were integrally involved in the development of devices and systems that have revolutionized cardiac care. Some examples include the first coronary stents, robotic catheterization, and a 3D mapping and ablation system that transformed the treatment of arrhythmias. Gepstein said: "Rambam's collaborations with the Technion - Israel Institute of Technology, R&D departments of technology giants, hi-tech companies

and startups allow inventors, physicians, mathematicians and engineers to combine their talents, find new solutions, and adapt existing technologies to answer evolving medical needs."

The physical space of the Eval Ofer Heart Hospital was designed with an eye towards the future. The departments, clinics and units, the number of beds, and the equipment and systems, were planned not only for current needs, but to allow for changes in cardiovascular care, and to take us well into the future.

about cutting-edge advances in cardiovascular care, some of which already exist at Rambam: "Stem-cell research - regenerative medicine [Gepstein's personal passion], is advancing rapidly. Soon, we'll create bringing a new drug to clinical use, 'spare-parts' to repair the heart. a process that currently can take up Technology to reprogram a healthy to 15-20 years and cost billions of adult cell back to a pluripotent stem cell (like in a "time tunnel") and direct it to become any specific heart cell type, already exists in my laboratory. The hope is that in the future, patientspecific stem-cell derived heart cells will be routinely delivered to repair the heart during catheterizations. Using 3D bioprinting we may even, in the distant future, print the entire heart.

SHAPING THE FUTURE OF CARDIOVASCULAR **MEDICINE**

hanks to the generosity of our friends, Rambam was given the unique opportunity to build a hospital dedicated to cardiovascular care. that will serve the needs of heart patients, for decades to come.

FER HEART HOSPITA

Professor Lior Gepstein, Director of the Department of Cardiology and the Director of the Division of Research at Rambam, shared his vision for the new Heart Hospital, and explained how Rambam is contributing to global trends and future practices.



There are many challenges before all of this could become a reality, but I'm confident that solutions will be found."

"Predictive medicine, using genetic testing, advanced imaging and other tools, already allows us to identify patients who are at risk of developing specific cardiovascular diseases. The ability to generate the patient's own heart cells in the lab ("patient-in-a-dish"), provides great opportunities for the emerging field of personalized medicine. The patient's own diseased cells will be tested and best treatments, determined. Finally, Gepstein spoke enthusiastically this technology can also be used for drug development, allowing for the first time, to study the effects of drugs in the early stage of development, on human heart cells. This may shorten the time and reduce the cost of dollars," explained Gepstein.

> Finally, Gepstein said, "The opening of the Eyal Ofer Heart Hospital on June 2nd, was a joyous moment - our dream came true. Years of planning and the immense generosity of our benefactors made it possible. Rambam is changing the face of the future - we are at the heart of it all."

"HORIZONS IN CARDIOLOGY 2030"



▲ L-R Dr. Oren Caspi, Prof. Gerhard Hindricks. Prof. Lior Gepstein, Prof. Miki Halberthal, Prof. Willian Abraham, Prof. Henry Halperin, Prof Bafi Beva

he 21st international "Horizon's in Cardiology" conference was held on October 19, 2022, in the Spencer Auditorium at Rambam HCC. This year, the event focused on innovative technologies and treatments, future trends and practices set to take us into the next decade, and bevond.

In his welcoming speech, Professor Rafi Beyar, Senior Interventional Cardiologist at Rambam, former Director General, and himself a world

research, thanked Rambam's visionary supporters and friends. He said: "The fields of catheterization and structural heart disease, open heart surgery, heart arrhythmias and heart failure, digital medicine, medical engineering, and imaging, are among the most difficult, unsolved problems in cardiovascular medicine today."

Hundreds of guests listened with great interest to presentations by international and local experts on

leader in cardiac innovation and new perspectives, challenges, and opportunities.

> International guests included Professor Gerhard Hindricks from Germany, Professor William Abraham, Professor Henry Halperin, Professor Paul Friedman and Professor Martin B. Leon, all from the USA. They discussed present, and soon to be implemented practices.

From the comfort of the auditorium, via live broadcast, guests witnessed actual interventions taking place in the D. Dan and Betty Kahn Foundation Center for Interventional Cardiology and operating rooms on the hospital campus.

Panel members discussed research and innovative collaborations with the Technion-Israel Institute of Technology, the University of Haifa, hi-tech giants, and pioneering Israeli companies.

Dr. Oren Caspi, Director of the Heart Failure Unit and The Center for Cardiovascular Research & Innovation, spoke about Rambam's innovative and developing technologies in the field of first-inhuman medical devices for heart failure and about remote cardiac rehabilitation as a practical, solution encouraging patient compliance and preventing heart failure. Caspi said, "heart failure is a disease whose prevalence in the population is increasing. It is a complex disease requiring a humane and innovative approach, courage, and multidisciplinary treatment."

"Rambam is involved in some 30 studies addressing; diagnosis, treatment, innovations, and drugs. We offer our patients the most advanced treatments and technologies. Leading world-class research and innovative ways of treating heart failure are integral to our vision which we are already seeing becoming a reality - guality of life, life expectancy will improve, and hospitalizations will decrease."

In memory of Elad Grenadier, an Israel Defense Forces officer, who fell in 2002, the Elad Grenadier Prize for Innovative Research in Cardiology was established. This year's prize was awarded to Tal Coller.

While some technologies presented at the conference may seem like science fiction to many, they will soon become standard procedures in treating cardiovascular disease.

CONFERENCE

HORIZONS **IN CARDIOLOGY 2030**

October 19, 2022

Live cases from the Eyal Ofer Heart Hospital

Gathering and Coffee

Opening Remarks Professor Miki Halbertha

- Professor Rafi Bevar
- President, International Friends Association
- Professor Lior Gepstein Director of Cardiology RHCC

Introduction of the Division of Cardiology Professor Lior Gepstein, Director

9.45-11.00 Electrophysiology

Inderators

Gerhard Hindricks. Professor of Cardiology University of Leipzig, Germany; Medical Director eart Center, Leinzig, Ge New Perspectives on Sudden Cardiac Death:

Challenges and Opportunities Live Case and Panel Discussion

Panelists: Avishag Laish Farkash, Lior Gepstein, Eval Nof, Motti Haim, David Luria

11:00-11:15 Coffee Break

11:15-12:30

Heart Failure

Moderators: Oren Caspi, William Abraham

William Ahraham Professor of Medicine Physiology, and Cell Biology, Ohio State niversity Medical Center, Columbus, Ohio, USA Heart Failure: Where Are We Heading?

Live Case and Panel Discussion (The Digital Heart Failure Patient)

Panelists: eniamin Medalion 7vi Adler in Aronson, Tal Hasin, Avishai Grupper Edo Birati, Kobi George, Limor Bushari 12:30-13:0

Henry Halperin, Professor of Medicine, Radiology, and Biomedical Engineering, John Hopkins Medical Institutions: Co-director. Cardiovascular Imaging Center of Excellence Johns Honkins Medicine Baltimore Maryland

Engineering in Cardiology

13:00-13:30 Lunch

13:30-13:45 Paul Friedman, Professor of Medicine and Chair, Department of Cardiovascular Medicine Mayo Clinic. Rochester. Minnesota. USA Artificial Intelligence in Cardiology

13:45-15:00 Structural Heart Disease & Interventions

Moderators: Arthur Kerner, Martir

Martin B. Leon, Professor of Medicine, Columbia University; Director, Columbia Interventiona Cardiovascular Care, New York, USA: Founder and Chairman Emeritus Cardiovascular Research Foundation **Structural Heart Interventions:** Where Are We Going?

Live Case Presentation and Panel Discussion

Panelists: Gil Bolotin, Ariel Roguin, Barabash, Avinoam Shiran, Chaim Lotar Doron Zahger, Majdi Halabi, Yair Feld

5:00-16:10 Future Directions Award and Conclusions

Mnderators• Rafi Bevar Linr Genstein, Gil Bol

The Elad Grenadier Prize for Innovative Research In Cardiology Drocontations of the Three Finalists (10 minutes each)

Prize Committee: Arik Wolak, Doron Aronson, nhal Habib, Yair Feld, Roni Abbo, Ronen Rubinstein, Maidi Halabi

Professor Gil Bolotin. Director of Cardiac Surgery

The Future of Cardiac Surgery

15:45-16:0 Professor Lior Gepstein, Director of Cardiology The Future of Biologic Solutions in Cardiology

The Elad Grenadir Prize for Innovative **Research in Cardiology**

Concluding Remarks and Summary



HE'S SEEN THE STUFF **OF DREAMS COME TRUE**

t is 1981. The young cardiology intern is observing a myocardial infarction patient after a cardiac catheterization, in Israel's first coronary intensive care unit at Rambam Health Care Campus. The patient has been scheduled for open heart surgery - a risky treatment for someone already at high risk. There has to be another way, he thinks, I have to find alternative, less invasive therapies.

Forty years later, Professor Rafi Beyar has been part of the revolution in interventional cardiology worldwide. Founder of several medical device companies, Beyar is a leader in interventional cardiology and a pioneer of heart stents - the leading intervention for coronary artery disease worldwide.

Beyar is excited about the opening of the Eyal Ofer Heart Hospital and its impact on heart patients in Northern Israel. "We will finally be offering the full spectrum of heart care to our patients, including community heart health programs, interventional cardiology, and advanced heart surgery such as artificial heart implants." He is quick to point out that good heart care starts with prevention. "We need to prevent heart disease before it reaches the critical phases, working together with HMOs to provide strong programs aimed at improving lifestyle, interventions, testing, and rehabilitation from a distance."

Quality healthcare, however, is based on advanced research and innovative ideas. Beyar points out that the new heart hospital will have dedicated heart research laboratories and work in collaboration with local and

▲ Prof. Rafi Beyar preforming the first catheterization in the newly opened Eyal Ofer Heart Hospital

international colleagues. Helmsley Health Discovery Tower will play a pivotal role in heart research. "Few hospitals in the world have access to the full spectrum of medicine, engineering, clinicians, academia, and industry - working together to fight heart disease."

In fact, Israel and Rambam are leaders in cardiac innovations. "Thousands of individuals visit Israel annually to discover the latest advances in heart diagnostics, treatments, and more. I am talking about engineers, physicians, researchers, paramedical teams, hospital administrators, and investors - to name a few." One such attractor is the annual Innovations in Cardiovascular Interventions (ICI). Established in 1996 by Beyar and his colleague Chaim Lotan, today, ICI is the premier cardiac innovations conference worldwide.

just the Start-up nation, it is the heart diseases." Robotic cardiac "State of the Heart nation." Many cardiovascular interventions Beyar at Rambam, is taking hold were first conceptualized in coronary and neurovascular and developed in Israel, interventions, and opening new including stent development, horizons for remote (via the robotic catheterization, and electrophysiological mapping some were direct developments of Rambam-Technion and Rambam- can remove a heart blockage with a industry collaborations."

future of cardiology is palpable. "Apps are already being developed to help patients manage their heart disease - without having to enter a hospital. Digital health disease diagnoses and treatments. and technology have changed the One company is targeting the entire odds." cardiovascular system to prevent the body! Gene therapy is being Beyar stresses, "Israel is not researched for treating genetic have him on their team.



catheterization, pioneered by Internet) vascular procedures worldwide.

Beyar remains amazed that he small catheter within minutes, and Beyar's excitement regarding the send his patients home the next day, whereas 40 years ago, the same patient faced at least two weeks of hospitalization, heart surgery, and the associated mortality. "Back in 1981, heart disease mortality companies are targeting heart in Israel was 35-50%. Today it is failure, complex arrhythmias, heart only 10-14%. Innovative research

He won't say it, but Beyar is one and treat blood clots throughout of the reasons those odds are so low in Israel. Rambam is proud to

WEARE FLYING HIGH AT RAMBAM



▲ Professor Bolotin in his fighter pilot

s Director of the Department of Cardiac "Mission accomplished; during my time in the Surgery and retired Israel Air Force (IAF) IAF, debriefing sessions were standard practice. pilot, Professor Gil Bolotin implements Following any procedure, I do the same - it is an the skills he learned in the IAF to lead his highly opportunity for my entire care team to discuss qualified care team. Bolotin's specialties include every patient and record results and outcomes. mitral and robotic surgery, heart transplants, assist These sessions allow us to generate innovative devices, and surgical treatment for atrial fibrillation. ideas and plan for the future."

"Physical fitness, determination, a strong will, Bolotin went on to say, "My family believes that I focus, and effective stress management are some do the same thing every day, but for me, every new gualities needed to be a pilot; one must navigate day presents another challenge. Patients' lives are complicated procedures to achieve an objective literally in my hands, and winning their confidence where an outcome is sometimes uncertain. These is extremely important. I am responsible for them." are the exact qualities a cardiothoracic surgeon Advancing and refining existing stent technology is an area Rambam is working on with

must possess," said Bolotin. Like the IAF, the Department of Cardiac Surgery an Israeli startup; over time, a venous graft can is continually upgrading its capabilities. Thanks to get blocked, and deploying an external stent on the generosity of our donors, Rambam was able to a grafted vein, is an effective solution. Clinical purchase two state-of-the art systems for the Eyal research on the stent is already present, and Ofer Heart Hospital. the improved stent is now available for use in Rambam.

"Our new 'da Vinci' robotic surgical system enables us to perform robotic-assisted, minimally Finally, Bolotin said, "I must make mention invasive surgery. The robotic instruments move like of Professor Benjamin Medalion. Attending a human hand but with a greater range of motion. Cardiothoracic Surgeon, who performs Rambam's Precise hand-eye coordination is an essential skill LVAD assist surgeries. A world leader in this field, for performing this type of surgery, and I mastered we brought him back to Israel from the USA, and these skills while serving as a pilot in the IAF," it is a privilege to have him at Rambam. However, Bolotin explained. every member of my dedicated care team is a

Rambam also acquired the Medistim Echovital cog in the wheel, and I thank them for their Doppler Imaging System, ultra-modern technology commitment and hard work." combining ultrasound imaging and transit-time The Department of Cardiac Surgery at Rambam flow measurement for real-time results. This novel Health Care Campus is making a considerable technology allows us to assess the quality and difference to its patients and is significantly flow of the grafts done in coronary artery bypass impacting the future of cardiac medicine (CABG) surgery and improve our outcomes. worldwide.



Professor Gil Bolotin



THE GREATEST HEROES DOING THEIR DUTY



▲ Olfat Sabra

he nurses in Rambam's Heart Failure Unit are unparalleled with regard to their kindness, compassion, and caring for others. They are committed to their work, doing a critical job for the most critically ill patients.

Every day, Olfat Sabra and Ilona Moshe assist with complex, life-saving procedures on some of Rambam's sickest patients. These big-hearted women are more than a professional team - they are sisters in every sense of the word. Their relationship transcends their religious and cultural heritage, and they support and depend on one another, day in and day out.

In addition to their nursing training, Olfat and Ilona are both Ministry of Health clinical heart failure specialists, and both received specialized LVAD training in Hanover, Germany.

Under the supervision of Dr.

▲ Ilona Moshe



I am of certain convinced that the areatest heroes are those who do their duty in the daily arind of domestic affairs whilst the world whirls as a maddening dreidel.

- Florence Nightingale (1820-1910) (known as the founder of modern nursing)

Failure Unit and Head of Rambam's critically ill heart patients is their Cardiovascular Research & calling. Olfat witnessed heart failure Innovation Center, they manage firsthand at home while growing multiple aspects of Rambam's LVAD patient care. From pre-procedure patient assessment to in-patient personal experience motivated her to care, their relationships with patients specialize in cardiac care. For Ilona, continue for years thereafter.

Both nurses have long careers want to save lives and help people Oren Caspi, Director of the Heart at Rambam and working with get well," she said.

up, at a time when life-saving interventions were not available. This her calling is simple and clear, "I just

BUILT TO ORDER -BIO-ENGINEERING TEAM WORKS BEHIND THE SCENES

guipping the new Eyal Ofer heart Hospital was an enormous undertaking. It required comprehensive assessment of current needs, but also providing flexibility and evolving solutions for future changes in the delivery of cardiac care. With an equipment budget of about \$11 million, Rambam's Bio-Medical Engineering Department rose to the occasion, procuring state-of-the art systems, advanced imaging equipment, an angiography system, an excimer laser system, a coronary flow-wire system, surgical lighting systems, and an additional 300 smaller devices and supplies.

.

Gennady Sapozhnikov, Director of the Bio-Medical Engineering Department, said, "We began an intensive process of rigorous planning and coordination with our physicians and suppliers to ensure that



······ BEHIND THE SCENES ······

we met their specific requirements and deadlines. We had to be sure that we had ironed out all the kinks and could guarantee long-lasting, problem-free performance. Our staff installed and tested every single thing, after which we trained the care teams in their usage and operation." "Their contribution often goes unnoticed, but the entire Bio-Medical Engineering Department worked tirelessly to meet the deadline and ensure a successful outcome. Our team members are experts with unique skills, and so we have the expertise to successfully handle a project of this magnitude. Every piece of equipment we purchased and installed impacts and improves the treatment Rambam provides," Sapozhnikov concluded.

Gennady Sapozhnikov ►





▲ Dr. Shkedy performing a procedure in Ethiopia

▲ Rambam and Stanford Medicine Symposium participants in the Sammy Ofer Fortified Underground Emergency Hospital

RAMBAM AROUND THE WORLD



▲ Dr. Omri Emodi and Dr. Zach Sharoni performing life-changing surgery in Madagascar

JOINT RAMBAM AND STANFORD MEDICINE SYMPOSIUM

Physician-scientists and researchers attended the joint Rambam and Stanford Medicine Symposium (established 2017). to discuss critical topics to advance global healthcare.

One fruit of the collaboration between the institutions has been Rambam's establishment of Biodesign Israel, a national academic center inspired by the Stanford Biodesign program for health tech innovation leaders, directed by Dr. Yona Vaisbuch, Attending Physician, Department of Otolaryngology-Head & Neck Surgery at Rambam.

A major focus of this year's symposium was exploring the impact of Biodesign, a globally acclaimed methodology developed by Stanford Biodesign aimed at inspiring clinicians, engineers, and business professionals to work together towards a need-driven approach to health innovation. New technologies and the use of Big Data in medicine were spotlighted, including a solution aimed at reducing unnecessary anesthesia for children needing an MRI scan.

Israel and Rambam participants included Professor Miki Halberthal, General Director of Rambam, Professor Elon Eisenberg,

Dean of the Technion's Faculty of Medicine, Professor Rafi Beyar, President of the International Friends Associations of Rambam and Professor Lior Gepstein, Director of the Division of Research and the Division of Cardiology.

The symposium also included a disaster management session on trauma and the response to COVID-19 in both institutions.

Professor Beyar commented; "The Symposium was very successful. We spent two days immersed in innovation, digital health challenges, and joint research projects between both institutions."

HUNDREDS OF SMILING **CHILDREN**

Rambam physicians, Dr. Omri Emodi, Deputy Director of the Department of Oral and Maxillofacial Surgery and Dr. Zach Sharoni, Senior Physician, Department of Plastic Surgery, participated in a ten-day mission in Madagascar where oral and maxillofacial surgeons, plastic-surgeons, and medical professionals, brought smiles to the

faces of local children born with a cleft lip/palate. Madagascar has only five surgeons who can perform this

surgery.

Vietnam, Ghana and Ethiopia. Cleft lip/palate are common birth defects and corrective surgery is required to close the lip/palate and restore structure and function.

Patients need psychosocial care, speech therapy, and nutritional support as they are often undernourished. Many children in third-world countries do not have access to this surgery and struggle with their condition.

HEALTHCARE IN ETHIOPIA -RAMBAM WILL MAKE A DIFFERENCE

Dr. Yotam Shkedy, Attending

Dr. Emodi and Dr. Sharoni have participated in numerous global missions. USA based Operation Smile has some 6,000 volunteers who provide worldclass cleft palate/lip surgery, for children, primarily from third-word countries. Both doctors have treated children in countries like

Physician, Department of Otolaryngology-Head & Neck Surgery at Rambam HCC, recently returned from a mission to Ethiopia, where he operated on locals who have cancerous growths in their oral cavity. Usually, Shekdy performs this type of surgery with a highly experienced, multidisciplinary medical team. This time however, he was there to teach a local team how to perform the procedure at Saint Peters Specialized Hospital, Addis Ababa.

"Otolaryngology-head and neck tumor surgery can be complex and challenging, and not having the medical support we are used to, was a formidable challenge nevertheless. we were successful." Shkedy explained.

Shkedy performed numerous surgeries on patients with head and neck tumors and he intends to return to Addis Ababa to do more to help local practitioners learn to perform these procedures. "We have a real opportunity to be part of a critical change in places that really need our help. It's very exciting to be a part of it," Shkedy concluded.





PROFESSOR DORON ARONSON

Director, The Frania Goldhar Department of Intensive Cardiac Care

rofessor Doron Aronson, Director of The skin has the potential to change the paradigm Frania Goldhar Department of Intensive of treating fluid overload in heart Cardiac Care at Rambam HCC, is the author of multiple internationally recognized research studies. His research focuses on central aspects of heart failure, and one of his specific interests is Cardiorenal syndrome. This complex syndrome defines disorders of the heart and kidneys whereby dysfunction in one organ may induce dysfunction in the other. His studies involve various blood flow and imaging modalities and aim to develop a fundamental pathophysiological and clinical understanding of this complex syndrome.

Fluid retention is common in patients with heart failure. Current treatment of fluid retention (edematous disorders) in heart failure primarily relies on diuretic drugs.

Instead of using diuretics, a recent study entitled "Enhancing Sweat Rate Using a Novel Device for the Treatment of Congestion in Heart Failure" by Professor Aronson and colleagues demonstrates an alternative safe way of removing fluid and sodium from the body using a specially designed device which induces perspiration. This method is advantageous as it is independent and does not rely on renal function.

"Enhancing fluids and sodium loss via the

and renal failure. When our patients report enhanced quality of life, and we see a significant decrease in heart failure-related hospitalizations and mortality, we know that we are on the right track," Aronson commented.

DR. ITAY OR Resident, Department of Cardiac Surgery

item unintentionally left behind in a patient's body in an operative or procedural setting. RSI has severe implications and consequences that could include pain and suffering, infection, and in extreme situations, death. RSI occurs in around 1 out of 5,500 operations. Rambam and the Technion-Israel Institute of Technology are working together to reduce this threat.

Current standards for preventing RSI include the multiple counting of all instruments and small items at various stages during the procedure.

Several systems and technologies have been developed to assist in counting. However, these systems all depend on a human operator, which leaves room for human error.

Artificial intelligence (AI) is one system that does not depend on a human operator.

Dr. Itay Or, Resident, Department of Cardiac Surgery, under the supervision of Dr. Gil Bolotin. Director, Department of Cardiac Surgery is currently involved in a joint study with the Technion: "Preventing Retained Surgical Items Using Computer Vision and Artificial Intelligence."

This three-year study uses a combination of AI and computer vision to monitor and track items during surgery automatically and ensure that all of these items have been accounted for. If an item is "lost," the system will generate a video showing the location of a specific item, thereby assisting in its recovery.

As part of this study, we deployed a novel multi-camera system in one of the operating rooms in the Patricia & Albert Frank Family Cardiology Inpatient Department in the new Eyal Ofer Heart Hospital at Rambam HCC. The

retained surgical item (RSI) is any system includes four stationary cameras and one head-mounted camera that tracks the chief surgeon's view. Using the data collected by the cameras, we will develop computer vision algorithms for tracking and monitoring surgical items.

> Rambam's Helsinki Committee has approved the use of this system.

> At this stage, the system will not replace physical counting methods, but it may lead to more effective means of avoiding the dangers of lost surgical items.

RAMBAM **SUMMIT**



▲ Ishtar - popular Israeli singer

28

fter a two-year hiatus, the 2022 Rambam Summit took place in June. With an exciting and full list of events, we welcomed special friends from around the world, VIPs and honored guests. The theme of this year's summit was 'Unity' and it

> focused on harmony and peaceful coexistence between

all of northern Israel's multi-cultural communities. After a major donation from the Eyal and Marilyn Ofer Family Foundation, the new Eyal Ofer Heart Hospital, with state-ofthe-art cardiac units, clinics and inpatient care, was officially opened in a splendid ceremony in the presence of Eyal and Marilyn Ofer, their daughter, Olivia as well as VIP quests and Ofer family and friends. We are most grateful to the Eyal and

Marilyn Ofer Family Foundation for their generosity and creating an opportunity for us to leap ahead, and take the treatment of cardiovascular disease, decades into the future.

UNITY

Rambam's leading physicianresearchers shared their insights into the hospital's cuttingedge research and innovation projects which are set to impact global healthcare. Regenerative medicine. from the cellular to the tissue level and stem-cell technology, were just two of the topics that enthralled visitors.

The ultra-modern, Patricia and Albert Frank Family Cardiology Inpatient Department was opened and four generations of the Frank family participated in the ceremony. A personal and sentimental journey motivated the Frank family's philanthropic activities and we are forever grateful for their multiple contributions to Rambam. General (ret.) Eliezer Shkedy,

former Commander in Chief of the Israeli Air Force captivated his audience with a presentation entitled "Why, Who is Michael?" This question answered, participants walked away inspired by the story of Shkedy's son; being different, acceptance and determination.

Visitors were fascinated by a tour of the 20th floor of Helmsley Health Discovery Tower which is envisioned as one of the most advanced medical research institutes in the world.

Thereafter, guests explored the Sammy Ofer Fortified Underground Emergency Hospital (SOFUEH). Usually a parking lot, it can be converted into a 2,000-bed hospital within 72 hours. During the COVID-19 pandemic, the SOFUEH operated as Israel's largest COVID-19 facility. Guests enjoyed donning personal protective equipment and watching a demonstration by medical personnel, highlighting the many challenges associated with the pandemic.

RAMBAMHCC



The Rambam Award was the general wellbeing of humanpresented to Mr. Alan and Mrs. Tatyana Forman, Professor Emeritus Yoram Palti, Professor Emeritus Peretz Lavie, and Mr. Jonathan and Mrs. Edna Sohnis (in absentia) at a gala event on the final evening. This prestigious award recognizes the outstanding contributions and the impact members of the community have made to Rambam, global health and





RAMBAM SUMMIT

The Prseident of the State of Israel Mr. Issac Herzog, First Lady Michal Herzog, Minister of Health Nitzan Horowitz with Rambam's Administration

kind. The President of the State of Israel, Mr. Isaac Herzog, First-lady, Michal Herzog, Minister of Health, Mr. Nitzan Horowitz, VIP's, donors and friends, also participated. Popular, multi-cultural, Israeli entertainers wowed and delighted hundreds of auests.

The 2023 Rambam Summit will take place May 29 - June 1, and we look forward to seeing you there.



2021-2022 RAMBAM AWARD

The Rambam Award is presented to outstanding individuals in tribute to their achievements in the fields of science, medicine, and technology, or in recognition of their crowning accomplishments as outstanding citizens of the world and for their contributions to humanity.



▲ L-R Tatyana Forman, Prof. Rafi Beyar, Prof. Miki Halberthal, Sari Greidinger, Alan Forman

MR. ALAN AND MRS. TATYANA FORMAN

Alan is a businessman and recipient of many prestigious awards, including an Honorary Doctorate from the Technion-Israel Institute of Technology. Alan is a cherished board member of the American Friends of Rambam, the American Technion Society, and the Technion International Board of Governors. The couple are joint recipients of the Gift of Life Angel Award. Alan and Tatyana's binding commitment to improving the healthcare of countless Israelis through philanthropy has benefitted Rambam's Science Museum in the Ruth Rappaport Children's Hospital and our research laboratories working on genetic disease, cancer, heart disease, and other clinically critical topics.

In acknowledgment of all the aforesaid, the Honorary Awards Committee found Mr. Alan and Mrs. Tatyana Forman deserving of the 2022 Rambam Award.

...... PROFESSOR EMERITUS PERETZ LAVIE

A global leader in sleep research and medicine, Professor Emeritus Peretz Lavie led the development of the first sleep laboratory in Israel at the Technion-Israel Institute of Technology. During his term as President of the Technion, the institute won international acclaim for multidisciplinary scientific research. Lavie's visionary leadership also led to many Technion-Rambam-Industry-International-Academic collaborations. An eminent academic author, he is a recipient of multiple Israel and international awards, including Israel's Elkeles Prize for Outstanding Scientist in Medicine, the University of Pisa Sleep Award, and Israel's prestigious EMET Prize. Lavie has been instrumental in developing medical devices and diagnostic services for sleep



▲ L-R Prof. Rafi Beyar, Prof. Miki Halberthal, Sari Greidinger, Prof. Peretz Lavie medicine and cardiology. He is an inspiration to researchers and clinicianscientists - particularly at Rambam HCC.

In acknowledgment of all the aforesaid, the Honorary Awards Committee found **Professor Emeritus** Peretz Lavie deserving of the 2022 Rambam Award.



▲ L-R Prof. Rafi Beyar, Prof. Miki Halberthal, Sari Greidinger, Prof. Yoram Palti

PROFESSOR EMERITUS YORAM PALTI

Haifa-born Professor Emeritus Yoram Palti is the recipient of the 2022 Israel Prize, a dedicated physician, exemplary educator, and consummate researcher. He participated in the establishment of the Faculty of Medicine at the Technion-Israel Institute of Technology, headed the Department of Physiology and Biophysics, and the Rappaport Family Institute for Research in the Medical Sciences. His ability to discover unique solutions to medical problems, his groundbreaking research and tenacious persistence, led to the establishment of many new companies. Palti's discoveries have paved the way for health and healing and bring new hope to patients worldwide. He inspires medical researchers and physician-scientists and is committed to bridging the gap between the basic sciences, medical science, and clinical practice.

In acknowledgment of all the aforesaid, the Honorary Awards Committee found Professor Emeritus Yoram Palti deserving of the 2022 Rambam Award.



▲ L-R Laurie Koon, Prof. Rafi Beyar, Margot Gibis, Prof. Miki Halberthal, Dr. Esty Golan

LEIR FOUNDATION ACCEPTS THE 2021 RAMBAM AWARD IN SPECIAL CEREMONY

As no Rambam Summit was held in 2021, Ms. Margot Gibis, President of The Leir Foundation, accepted the Rambam Award on its behalf while on a visit to Israel later that year. The Leir Foundation was recognized for the exceptional achievements of its founders, Henry J. and Erna D. Leir, their commitment to improving lives, and their contributions to medical, cultural, humanitarian, business, and academic endeavors worldwide, including Israel and Rambam. Over the years, the Leir Foundation has supported multiple endeavors at Rambam. The Erna D. Leir Research Center in Degenerative Brain Diseases, the Pediatric Emergency Examination Area in Memory of Henry J. and Erna D. Leir, and the Leir Foundation Catheterization Laboratory represent a few of the Foundation's generous contributions. In acknowledgment of all the aforesaid, the Honorary Awards Committee found The Leir Foundation deserving of the 2021 Rambam Award.



MR. IONATHAN AND MRS. EDNA SOHNIS (IN ABSENTIA)

Mr. Jonathan and Mrs. Edna Sohnis were recognized for their extraordinary impact on the Jewish community and Israel. Tikun Olam, education, biotechnology, and medical research, form the core of their philanthropic endeavors. Brooklyn-born Jonathan, a Technion-Israel Institute of Technology graduate, is married to Israeli-born Edna, who partners with him in his charitable efforts. They have supported some of Israel's most admired academic institutions. Jonathan has received numerous awards, including an Honorary Fellowship and Honorary Doctorate from the Technion. The couple has generously supported clinical research initiatives at Rambam, including stem cell therapy, cancer, and cardiovascular diseases. They share Rambam's vision that all sectors of Israeli society are entitled to the best possible health care and our mission to eliminate diseases by supporting basic and translational research.

In acknowledgment of all the aforesaid, the Honorary Awards Committee found Mr. Jonathan and Mrs. Edna Sohnis deserving of the 2022 Rambam Award.

SNAPSHOTS

RAMBAM INTERNATIONAL RELATIONS

ceremony honoring the memory of Mrs. Rivka Devidas z"l, founder of the "Sim Lev Lalev" foundation took place on June 19th. The ceremony was attended by husband, Moshe, daughter, Irit and other family members. Together with Rambam executives, the group visited the Rivka Devidas Lobby and Reception Lounge in the Eyal Ofer Heart Hospital, named in her honor. We are most grateful for their significant donation.



▲ Moshe Devidas, Irit Mor and family members at the appreciation ceremony honoring Rivka Devidas z"l



▲ The Picciotto family with Prof. Amon Amit, Prof. Miki Halberthal and Hagit Avner

n July 12th, while on a family visit from Brazil, the Picciotto family were welcomed to Rambam for the very first time. Fifteen family members, spanning four generations participated in a very emotional event. The family funded the recent renovation of the Gynecologic Oncology Unit, named after them. During their visit, an official opening ceremony was held. Staff from the Picciotto family Gynecologic Oncology Unit were in attendance.



and Gennady Sapozhnikov



rofessor Miki Halberthal, Dr. Esty Golan, Nissim Haim, Deputy Director of Rambam, met with the Estates and Trusts Committee of the Israel Ministry of Justice on July 20th. Visitors included Israel's Administrator General, Ben-Zion Figelson, and the committee's chairman Judge (ret.) David Rosen. Over the years, Rambam has benefited from gifts and bequests from individuals who wish to support public institutions and we are privileged to have received generous donations for the purchase of medical equipment.

SNAPSHOTS

.

Members of the Estates and Trusts Committee of the Israel Ministry of Justice with Nissim Haim, Dr. Esty Golan, Inbar Shahaf,

SNAPSHOTS



Members of the International Fellowship of Christians and Jews during their visit, with Rambam staff

n July 25th, a high-ranking delegation from the International Fellowship of Christians and Jews who recently pledged a large donation to purchase a CT scanner, visited Rambam. The delegation included Safwan Marich, Gidi Shmerling, Yael Barnovsky and Perry Farhi.

Following a tour of the hospital and the CT Unit, to be named after the Fellowship, ways of taking our collaboration into the future were discussed.

Same Same

....

rofessor Miki Halberthal, Dr. Esty Golan and members of the International Relations Department hosted Gabriella Alexander-Passe, and daughters Anoushka and Sophia Rose from British Friends of Rambam. They visited Ruth Rappaport Children's Hospital where they witnessed the impact this hospital has made on pediatric health. They met with Dr. Daniella Magen Director, Pediatric Division and Director, Pediatric Nephrology Institute, Prof. Amir Kugelman, Director, Neonatal Intensive Care Unit, Prof. Mark Eidelman, Director, Pediatric Orthopedics Unit and Gila Hyams, Director of Nursing.



▲ L-R Gabriella Alexander-Passe, Dr. Esty Golan, Gila Hyams



▲ L-R Dr. Daniella Magen, Gabriella Alexander Passe, Anoushka Rose, Dr. Esty Golan, Sophia Rose



- Harry Lederman, Prof. Lior Gepstein and Roee Atlas

n August 11th, Dr. Avi Weissman, Sandy Gooch and Harry Lederman from Marina del Rey, visited Rambam. The couple are devoted benefactors and their significant donations have made a considerable difference to women with cardiovascular conditions. Following a tour of the Sandy Gooch and Harry Lederman Women's Heart Health Clinic, they were presented with Rambam's Certificate of Appreciation.



▲ Mr. Yoni Essakow with the Coral delegation and Rambam executives.

delegation from Coral Maritime Services Ltd. a well established Haifa, maritime company, including Mr. Yoni Essakow, Managing Director of Coral, and several members of their management, visited Rambam recently. Coral's recent donation was used to purchase a heartlung machine for the Department of Cardiac Surgery.

SNAPSHOTS



A Dr. Oren Caspi, Dr. Miri Blich, Dr. Esty Golan, Dr. Yael Shachor-Meyouhas, Dr. Michal Mekel, Dr. Avi Weissman, Sandy Gooch

SNAPSHOTS



r. Waleed Lutfi Diab and his family were honored for their generous donation towards the Department of Cardiac Surgery. A plaque was unveiled and a certificate of appreciation was awarded on October 11. Dr. Oved Cohen, Deputy Director, Department of Cardiac Surgery, department staff, and Dr. Tarek Dian, Waleed's son, a Rambam physician, were there to witness the moment.

ctober 11, 2022, France - It was an evening of laughter and smiles when M. Olivier Guedj, comedian "extraordinaire" entertained guests at a fundraiser organized by Mme Joellë Abitbol, President of "Amis Français de l'Hôpital Rambam", AFHORA, Friends of Rambam, France at the théâtre Le République in Paris.



▲ M. Olivier Guedj



▲ L-R Joellë Abitbol and Joellë Sermaize Cuvelier



▲ L-R Dr. Esty Golan, Dr. Ayelet Eran, Prof. Miki Halbertal, Dr. Anat Ilivitzki, Prof. Ron Robin and Roee Avraham with University of Haifa researchers

t was an exciting moment when Rambam's new MRI Institute was inaugurated on October 24th, following a period of extensive renewal and expansion. In addition to a renovation of the entire institute, refurbishment of research space for University of Haifa researchers, two brand-new, stateof-the-art MRI machines were purchased and deployed in the institute. Prof. Michael Halberthal, Prof. Ron Robin, President of the University of Haifa, special quests, hospital physicians, and university researchers, participated in this significant event, which also celebrates a unique partnership between Rambam and the University of Haifa. Guests enjoyed speeches from Dr. Anat Ilivitzki, Director of the Imaging Dept. Dr. Ayelet Eran, Director of the MRI institute, and Dr. Roee Admon, Stress & Psychopathology Research Laboratory, followed by a tour of the beautiful and bright MRI Institute.



▲ L-R Inbar Shahaf, Prof. Zaher Azzam, Dr. Esty Golan, Rami Zatout, Rania Zatout, Galit Alon

SNAPSHOTS

.

n October 18th we hosted Rania and Rami Zatout from Haifa, in an intimate ceremony honoring Rami's father Sami Zatout, and a donation they made in his honor to the Internal Medicine wing. Dr. Esty Golan, Professor Zaher Azzam, Director of Internal Medicine, Mrs. Galit Alon, Managing Director, Friends of Rambam and Mrs. Inbar Shahaf were present when a plaque was unveiled and a certificate of appreciation was awarded at the ceremony.

•••••• SNAPSHOTS

successful event to raise funds for a heart-lung machine was held at the Ma'Taim restaurant in Zichron Yaakov, during the month of May. Organized by devoted Rambam friends; Oded and Miri Turgeman and daughter, Shir the evening was hosted by MC, Avi Kakun, radio and TV personality. VIP quests included: Dr. Yifat Shasha-Biton. Minister of Education, Moshe Kachlon, MK (ret.) and leading business people. Prof. Halberthal and Prof. Bolotin addressed the guests and popular Israeli artist, Kobi Aflalo entertained all with his music.

L-R Oded Turgeman, Eliezer (Eli) Marom, Minister Dr. Efrat Shasha Biton, Avi Kakun



▲ L-R Prof. Gil Bolotin, Prof Miki Halberthal, Avi Kakun, Rellu Kakun, Kobi Aflalo, Inbar Shahaf, Dr. Esty Golan, Miri and Oded Turgeman



▲ L-R Louisa Valitsky, Sigal Amsalem, Breeze McMennamin, Dr. Esty Golan

n Wednesday, June 29, 2022 Rambam welcomed two representatives from The Leona M. and Harry B. Helmsley Charitable Trust, Ms. Breeze McMennamin, Program Director, Israel Program and Ms. Louisa Valitsky, Israel Associate Program Officer. The trust generously contributed to the establishment of Helmsley Health Discovery Tower. The visit included a tour of the Helmsley Health Discovery Tower's 20th floor and also the newly opened Eyal Ofer Heart Hospital.

n June 13, 2022, we welcomed quests from abroad; Long-time friends and supporters Larry and Andi Wolfe, friends Jim and Cathy Deutchman, and Danny Goldman. They visited The D. Dan and Betty Kahn Foundation Center for Interventional Cardiology, established through a generous donation made by the D. Dan and Betty Kahn Foundation, named after Andi's parents and of which

Larry is president. They

also visited the Helmsley

Health Discovery Tower, and

the Sammy Ofer Fortified

Underground Emergency

Hospital.



••••



▲ L-R Prof. Miki Halberthal, Philippa Lewis, Julian Lewis, Dr. Avi Weissman, Dr. Esty Golan, Inbar Shahaf

ulian and Philippa Lewis, representatives of the David and Ruth Lewis Family Charitable Trust, visited Rambam on November 6th, 2022. Their visit included a meeting with Prof. Lior Gepstein, Director, Research Division and Director, Cardiology Division, Dr. Emily Avitan, Director, Department of Dermatology and Head of the Skin Cancer Research Lab at the Clinical Research Institute at Rambam (CRIR). They visited the CRIR and there they met with Dr. Arbel Artzy Schnirman, Director, MATRIC- Applied Medical Technology Research. Philippa and Julian recently approved a significant donation for the establishment of the Skin Cancer Translational Research Center.

SNAPSHOTS ·····

EYAL OFER

GLOBAL ENTREPRENEUR ENTREPRENEURIAL LEADER PHILANTHROPIST

orn in Haifa, Israel, Eyal Ofer is an astute businessman, shipping magnate, real-estate mogul, passionate art collector, devoted husband, father, and grandfather. As a teen, Ofer was inspired by his father, Sammy Ofer z"l, who tasked him with work on one of his family's ships, loading cargo, scraping the sides, repainting them, and then ultimately, traveling to many international ports. Long summer months of hard work birthed in Ofer a passion for shipping and led to a lifetime of career success. As Chairman of Ofer Global, he has established a group of international businesses focused on maritime shipping, real estate, technology, banking, and energy.



the foundation. in the world.

▲ L-R Marilyn Ofer, Eyal Ofer, Olivia Ofer, at the Opening of Eyal Ofer Heart Hospital

Beyond his business interests, Eyal Ofer is a highly committed philanthropist, committed to building on his family's legacy of charitable giving and support. One such effort is his establishment of The Eyal and Marilyn Ofer Family Foundation, a multi-generational philanthropic organization that supports projects in education, the arts, and healthcare. Their daughter Olivia serves as CEO of

Rambam's relationship with the Ofer family spans decades; their support has changed the face and quality of healthcare at Rambam. The benevolence of Eyal's father, Sammy, included multiple donations to Rambam, including the main hospital building, the Sammy Ofer Tower, and the Sammy Ofer Fortified Underground Emergency Hospital - the largest facility of its kind

Most recently, thanks to the generosity of The Eyal and Marilyn Ofer Family Foundation, the Eyal Ofer Heart Hospital opened during the 2022 Rambam Summit. This state-of-the-art heart hospital is a testimony to the commitment and vision of a family that recognizes the evolving nature of healthcare and technology.

Eyal embodies the courage and initiative that distinguish Israeli entrepreneurship and exemplifies how it can be combined with personal commitment to further important causes for the public good.

The entire Rambam family and the Eyal Ofer Heart Hospital personnel are deeply grateful to the Eyal and Marilyn Ofer Family Foundation for their life-saving and magnanimous gift.

······ SPECIAL EVENTS ······

BANK HAPOALIM **GIVING BACK** TO THE COMMUNITY



▲ The Bank Hapoalim delegation during the ceremony acknowledging Bank acknowledgment ceremony

Hapoalim's contribution to the renovation of Rambam's hydrotherapy hydrotherapy are well-known in the healthcare pool was held on September 12, in the Spencer Auditorium in the Sammy Ofer Tower. Several high ranking members of Bank Hapoalim, including Reuven Krupik, Chairman, and Directors; Naama Halevi Par, Samar Bashara, Ronen Cohen, and other key personnel participated. The multiple benefits of

sector and Rambam is fortunate to have a pool that meets international standards and guidelines. Bank Hapoalim is involved in an extensive range of community-oriented activities and support projects at Rambam that focus on the patient's ease of access to care and benefit our staff.

OPENING THE FRANK FAMILY **CARDIOLOGY INPATIENT DEPT.**

Hospital, an appreciation ceremony honoring Family also met with, and chatted to the medical the Frank Family was held on June 2, in the personnel and patients in the department. Four Greidinger Hall. There was not a dry eye in the generations of the extended Frank family; audience when Albert Frank shared some Frank- Albert, his children, grand-children and greatfamily history that shaped their philanthropic grandchildren as well as other family members values and their commitment to Rambam. Later from across the globe, attended the event.

rior to the opening of the Patricia and in a heart-warming moment, Albert and the late Albert Frank Family Cardiology Inpatient Patricia Frank's great-granddaughter assisted Department in the Eval Ofer Heart with the ribbon-cutting ceremony. The Frank

▼ Albert Frank and his family on stage with Prof. Miki Halberthal, Prof. Rafi Beyar, Dr. Esty Golan, Dr. Avi Weissman and Inhar Shahaf





OPENING CEREMONY EYAL OFER HEART HOSPITAL

ne could feel the excitement in accompanied guests on a tour of the new facility. the air when the much-anticipated A festive luncheon took place in the picturesque opening of Rambam's brand-new courtyard of Rambam's 'Stone Building' - a Eyal Ofer Heart Hospital took place on June 2, late-19C construction and originally a convent. 2022, as part of this year's Rambam Summit. The The ceremony was the perfect opportunity to cornerstone was laid in 2017. celebrate Eyal Ofer's birthday, which was on the The Eyal Ofer Heart Hospital was made same day - a double celebration.

possible through the magnanimous generosity of the Eyal and Marilyn Ofer Family Foundation - a multi-generational philanthropic foundation. Eyal and his father, Sammy Ofer - of blessed memory, have contributed to many advancements at Rambam HCC, and we are forever grateful for that

Eyal, Marilyn, daughter Olivia, family members, close friends, and members of the Rambam on a grand tour of the Eyal Ofer Heart Hospital. The new Eyal Ofer Heart Hospital is a Summit delegation attended the opening ceremony. Professor Miki Halberthal, Professor groundbreaking, cutting-edge facility that will Rafi Beyar, Dr. Esty Golan, Professor Lior Gepstein, permanently alter cardiac care for the residents Professor Gil Bolotin, and senior Rambam staff of Haifa and Northern Israel.

SPECIAL EVENTS

▲ L-R Prof. Lior Gepstein, Olivia Ofer, Marilyn Ofer, Eyal Ofer, Dr. Esty Golan, Prof. Rafi Beyar, Prof. Miki Halberthal

The ceremony continued with the unveiling of a plaque at the building's main entrance and a ribbon-cutting ceremony. The ceremony concluded when Eyal Ofer and Rambam's Rabbi Avraham Piotrkowski attached a bespoke mezuzah on the doorpost at the building's entrance. Following this, the Ofer family and their guests accompanied Rambam's administration



CREATING THE FUTURE OF MEDICINE

Support us and join Rambam HCC to ensure our ongoing ability to meet the needs of the people of Northern Israel

Eyal Ofer Heart Hospital Ongoing construction and developing and equipping:

Third Floor: Cardiac Surgery Operating Rooms and Intensive Care Unit

Fourth Floor:

The Echocardiography Department and Cardiac Rehabilitation Center Fifth Floor:

The Cardiac Surgery Inpatient Department

Contact us now for more information on how you could impact the lives of the people of Israel



American Friends of Rambam Medical Center www.aforam.org info@aforam.org Tel: (212) 292-4499



Australian Friends Of Rambam www.ausforam.org.au

veredharel@ausforam.org.au Tel: 0410 531 593



British Friends of **Rambam Medical Centre** www.rambamuk.co.uk

anita@rambamuk.co.uk Tel: (208) 371-1500



Canadian Friends of Rambam Medical Center www.cfram.ca

info@cfram.ca Tel: (416) 481-5552



French Friends of Rambam Medical Center joelleabitbol16@gmail.com www.afhora.org Tel: 07 82 53 71 10



Friends of Rambam in India

ralphy44@gmail.com Tel: 91 9819864340





Israeli Friends of Rambam Medical Center www.rambam.org.il galit@rmc.gov.il Tel: 972 (4) 777-1608



Spanish Friends of Rambam Medical Center

www.amigosderambam.org info@amigosderambam.org Tel: (609) 580-268



Israel Main Office and All Other Countries www.rambam.org.il ContactUs@rmc.gov.il

Raaya Gilboa @Desigr