

RAMBAM AWARD

2010 Recipients



Pictured above right *(l to r)*, Prof. Rafi Beyar, RHCC Director General, Prof. Karl Skorecki, RHCC Director of Medical and Research Development, Prof. Yehuda Hayuth, Chairman of Israeli Friends of Rambam Medical Center, and MK Prof. Daniel Hershkowitz, Minister of Science and Technology, congratulate Rambam 2010 Awardees:

- 1 Mrs. Ruth Rappaport
- 2 Prof. Moshe Revach
- **3** Rabbi Avraham Elimelech Firer
- 4 Mr. Sammy Ofer





2 Interview Prof. Derek LeRoith

Ruth Rappaport arrived from Geneva, Switzerland with friends M. et Mme. Didier and Marie-Therese Escaut. Anita

RAMBAM SCALES SUMMIT

n June 10th, Israeli Friends and Friends from abroad converged on Haifa for the first international Rambam Summit: "Where Medicine, Technology and Humanity Intertwine."

The event was the brainchild of Mr. Adam Emmerich, President of American Friends of Rambam Medical Center (AFORAM). The idea was warmly received by Director General Prof. Rafi Beyar, whose signature concerns were written all over the final product: putting patients first, and promoting creative partnerships across disciplines.

The morning session was devoted to lectures and panels by physician-scientists, healthcare policymakers, life sciences entrepreneurs, and medical ethicists. Participants explored the role of drug and medical device R&D in the advancement of medicine, and the socioeconomic and ethical implications of medical progress.

2004 Nobel Laureate in Chemistry Prof. Aaron Ciechanover, Chair of Rambam's Scientific Advisory Board, established the framework for discussion by identifying three modern revolutions in drug development: the era of incidental discoveries such as antibiotics (1930s-1960s), the era of brute-force screening of large libraries of chemical compounds such as statins (1970s-2000), and the current era can be applied to the patient only if we put together the information technology and software and make them accessible to the general practitioner." Prof. Beyar commented that for this to happen, funding mechanisms are needed. Mr. Gavriel Meron, Founder and CEO Emeritus of Given Imaging Ltd, spoke of developed countries' thirst for innovative and effective healthcare solutions, which, he said, can be supplied by Israel and thereby strengthen the national economy.



GALA EVENING

ourteen-year-old Eyal stood on a stage built on the spacious back lawn of the Dan Carmel Hotel, the Haifa Symphony

5 Tachlis

4 Prizewinning Synergy

6

International Outreach

7 Friends Help Build A Hospital!

8 Nurses' Station Alexander-Passe came from London. The Canadian contingent included Torontonians Moti Fishman and Suzanne Kaye, and Manitobans Kerry Auriat, Sandra Penny, and Mike Waddell. A large contingent arrived from the States, among them Adam Emmerich, Harvey Krueger with grandson Alex Cohen and friend Jerry Gotkin, Relly Dibner, Yair and Shoshana Kagan, Staci Light, Etti and Zeev Pilpel, and

Florence Tatistcheff-Amzallag.

of personalized medicine using such targeted molecules as Herceptin.

Ms. Jami Rubin, Senior Healthcare and Pharmaceutical Analyst at Goldman Sachs, conceded that the pharmaceutical industry is struggling to move from the second era into the third, and predicted that by 2014, seven of the top ten drugs in the market will be biotech devices. New York-based entrepreneur Dr. Yuval Binur forecast that medical devices will bridge the healthcare gap with cheaper and less invasive treatments. Israeli health policymaker Dr. Ran Balicer asked the audience to imagine a future in which medicine will have moved from bedside care to e-medicine and telemedicine provided via virtual consultations and mentored by health coaches.

"Personalized medicine is the biggest revolution in healthcare since vaccines," declared entrepreneur Mr. Uzia Galil, "but it Orchestra directly behind him, and a sea of grownups in evening attire facing him.

The audience had just watched a clip featuring a younger version of Eyal, but that little boy with soulful eyes and a face made puffy from cancer treatment looked unlike the poised teenage speaker to whose face a natural slimness had been restored: "I overcame cancer," he said, thanking Prof. Myriam Ben Arush, Head of the Pediatric Hematology and Oncology Department. "Today I can live my life like every normal child of my age."

The boy's listeners included Rambam Award recipients for 2010. They are philanthropists Mrs. Ruth Rappaport and Mr. Sammy Ofer, trauma specialist and immediate past Director General of Rambam Prof. Moshe Revach, and Israel Prize recipient Rabbi Avraham Elimelech Firer. Rabbi Firer is



GREETINGS FROM PROF. RAFI BEYAR

Dear Friends of Rambam,

As with every large endeavor to improve society, a core group of idealistic and ethical individuals gifted with creative ideas and executive skills is required at the helm. For the past several years, on behalf of realizing Rambam's master development plan for the 21st century, Trustee Boards for the American and Canadian Friends Associations have been recruited and assigned responsibility for managing the international activities of AFORAM and CFRAM respectively. With the kind patronage of Chief Rabbi Lord Jonathan Sacks, we hope to achieve the same in the United Kingdom (p7).

Meanwhile, we have so many firsts to share with you in these pages! Ribbons have been cut for the State of Israel's first Viral In Vitro Fertilization Unit (p3) and for the laboratories of the LHCRIR Diabetes and Metabolism Clinical Research Center of Excellence. Rambam researchers have played leading roles in the decoding of the Jewish genome (*p5*), and the *Rambam* Maimonides Medical Journal (RMMJ) has been launched (p8). The first drum of concrete has been poured for the new West Campus building complex (p3). And of course, the first annual Rambam Summit took place in Haifa, and many of you were present.

Please accept our thanks, for not one of these achievements would be possible without your generous partnership. •



Prof. Derek LeRoith, MD, PhD, FACP

Diabetes and Metabolism Clinical Research Center of Excellence Legacy Heritage Clinical Research Institute at Rambam (LHCRIR) Emeritus Chief, Division of Endocrinology, Diabetes and Bone Disease Emeritus Director, Metabolism Institute Mount Sinai School of Medicine, New York

The Diabetes and Metabolism Research Center of Excellence, and its Clinical Research Laboratories in memory of Ida Cabakoff, were inaugurated on October 13, 2010 with a festive ribbon cutting and a nationwide conference that focused on islet cell pathophysiology, insulin action, and diabetes' complications. With this event, eminent authority Prof. Derek LeRoith – who has made *aliyah* to Israel, and to the Rambam campus – assumed his position as Director of the new research facility.

What originally attracted you to endocrinology?

The personality of my mentor in Cape Town made it very attractive. Endocrinology is a cognitive specialty. There are no procedures – it's using the *kup* [points to his full head of silver hair and uses the Yiddish word for *brains*]. There are millions of symptoms. We interpret blood tests, tissue tests, x-rays.

You have been recruited to Rambam for your impressive record of research center leadership and group building. How would you define leadership?

The components of leadership are a mentoring personality, interpersonal communication skills, and no hidden agendas – for example,

[no] using [of] others to further one's own career. A mentoring personality is inherent [in certain individuals], but

it can be built upon. If you have this idea that the next generation is important, already by mid career you begin mentoring.

Which aspects of diabetes and metabolism do you intend to research?

One – the brain, which controls fat, liver, and muscle metabolism; we will be investigating appetite, satiety, and what goes wrong in obese type 2 patients. And the pancreas, which is responsible for insulin secretion and is important for type 1 diabetes. *Two* – how insulin works and doesn't work in obese and type 2 individuals. For example, if you take one hundred obese individuals, only 20% of them will become diabetic. *Three* – the genetics of beta-cell because diabetes is a dual-defect disease; every obese person has a defect in insulin action in the three major tissues – fat, liver, and muscle – but only those who have the beta-cell defect, which is genetic, become diabetic.

Four – the complications of diabetes. *Five* – vascular problems such as atherosclerosis.

Please describe your vision for the Diabetes and Metabolism Clinical Research Center of Excellence.

The Center of Excellence will be a core facility with the capacity for phenotyping mice (this means describing their physical and chemical abnormalities) and for performing metabolomics and lipidomics, in which you look at substances that you find in the tissues and blood and describe their metabolic qualities. One to two Principal Investigators will compose the core, and the others will be attracted by their presence, the funding, the facilities and the people. We require a group of colleagues that can talk to each other.

What is the medical-research urgency regarding type 2 diabetes?

In the last 20-25 years, there has been an epidemic of obesity and, with that, an epidemic of type 2 diabetes. We are speaking of the Western world with the U.S. as an example, but [the phenomenon] is applicable to Israel and even to developing countries – the Chinese, the Indians, the Southeast Asians and the Africans, [people in] the developing countries

with more economically advanced lifestyles. [Factors include] processed food – high-fructose corn syrup is a big industry – and [pauses, leans

forward, and in his native South African accent, slowly pronounces the word with a degree of obvious relish] – *slóth-ful-ness*.

You don't have to be large framed. Asians are slim, for example, but are developing visceral adiposity, and that leads to type 2 diabetes. It's a crisis for middleaged men and postmenopausal women. Between the ages of 35-55 in the U.S., the percentage of diabetics is 8-10% [in the general population], but by old age, the percentage has doubled. And the number of diabetics is increasing all the time. Type 2s can go for years without being diagnosed. They have no symptoms until they develop such complications as a heart attack, high blood pressure, or lipid abnormalities. A doctor has to think: maybe diabetes is being incubated.





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Architectural rendering Arieh Sharor

Arieh Sharon, Eldar Sharon, Architects & Town Planners Ltd. (West Side Story, p.3)

RAMBAM SCALES SUMMIT

CONTINUED FROM P1



(I-r) Mr. Peter Kash and Ms. Jami Rubin

legendary for having acquired his medical expertise autodidactically, and for putting his diagnostic brilliance at the service of thousands of needy individuals seeking his second opinion.

Hundreds of guests gathered in their honor, among them Minister of Science and Technology Prof. Daniel Hershkowitz, MK; Lieutenant-General (res.) Shaul Mofaz, MK; senior physicians and nurses, and Friends of Rambam.

Mr. Emmerich took the podium to thank Rambam on behalf of "those of us who are not in Israel and not in the healing profession" for doing "tremendous work truly without borders that benefits the whole world in the great tradition of Maimonides."•

Rambam on Call

TACHLIS

WEST SIDE STORY



"This honor comes to me in partnership with Baruch. So many aspects of the Rambam were in him: vision, a multidisciplinary approach, love of the future, charisma. He would not start a project if he didn't see a chance to complete it."

On June 10th at the first Rambam Summit, with these words, Rambam Award recipient Ruth Rappaport paid dignified and affectionate tribute to her late husband.

On June 13th, the planned Ruth Hospital, a gift from the couple to the children of Haifa, Northern Israel, and neighboring countries, was brought one step closer to realization. On this day, the first of 20,000 concrete mixers – recruited for a vast construction project expected to last approximately 18 months – turned north from the Haifa thoroughfare bordering Rambam, rumbled heavily down a dirt access ramp into the 14 m deep, 20,000 sq m wide pit at the site of Rambam's future West Campus, and poured out the first drum of concrete for the Sammy Ofer Northern Regional Underground Emergency Hospital.

The underground hospital's reinforced ceiling will provide the foundation for the above-ground Ruth Hospital and its three companion buildings – the Joseph Fishman Oncology Hospital, a Cardiovascular Hospital, and a Biomedical Discovery Tower.

The Haifa Municipality has defined the project as central to its urban development plans and authorized night construction in order to advance the completion date.



Of the Ruth Hospital's \$45M total cost, \$25M has been raised, the majority of which has been donated by the Rappaport Family. The new hospital is slated to open in 2012. The project requires an additional \$20M for its completion.

Stats:

Although statistics don't begin to tell the story, they do suggest how complicated an urban engineering feat has already been accomplished here, and something of what lies ahead:

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- 16,000 sq m of obsolete hospital bungalows and old, above-ground parking facilities were demolished to free up campus land for excavation and construction
- 250,000 cubic meters of earth and dolomite bedrock were drilled, pulverized, excavated, and cleared
- Eighty-one 8-meter-deep wells were dug, and 81 underground pumps and 16 surface-level pumps were kept

busy 24/7 siphoning off groundwater and seawater at a flow rate of 12,000 cubic meters per hour (cmh) per well; the water was piped 200 meters north into the sea

 100,000 cubic meters of concrete will be poured to construct a threelevel parking garage convertible within 72 hours into the 2,000-bed Underground Emergency Hospital

"We're Expecting!"

Israel offers the world a model for the detection, treatment, and follow-up of human immunodeficiency virus (HIV) carriers and acquired immunodeficiency syndrome (AIDS) patients, states Prof. Shimon Pollack, Director of the Allergy, Immunology & AIDS Institute. In Israel until recently, however, if HIV carriers or others with chronic viral diseases wished to start families with the help of in vitro fertilization (IVF), they had either to seek treatment abroad or to abandon the idea. Rambam and other large Israeli hospitals took the first step in this direction by helping HIV-infected women who had become pregnant by natural means give birth to uninfected babies. "In the second half of pregnancy," Prof. Pollack explains, "we administer drugs in order to lower the viral load to an undetectable minimum. Then, during labor, mother and child are treated intravenously, and the baby is treated for four to six weeks after birth. Four hundred HIV-free babies have been born to HIV-infected mothers in Israel, 230 of them at Rambam." In the late 80s and early 90s in Israel and all over the world, AIDS was thought to be an epidemic of homosexuals and heroin addicts; supposedly, heterosexuals were not involved. It was also a fatal disease, so the patient was affiliated with extraordinary groups and was stuck with the label of a lethal disease. Today, when AIDS is a heterosexual

This changed on April 13, 2010, when Israel's first Viral IVF Unit was dedicated at Rambam. The NIS 2m facility was planned and established in joint partnership with the Ministry of Health and is intended to serve HIV-infected childless couples from throughout the country.

"When AIDS was a lethal disease, we faced the big question of whether we should help HIVinfected couples have children if those children would eventually be orphaned," recalls Prof. Pollack, "but now we can manage the disease [with the HAART drug cocktail], and carriers have a very long life expectancy." The State of Israel has now taken the second step. The new Viral IVF Unit builds on the expertise of Rambam's pioneering IVF Unit, under the direction of Prof. Joseph Itskovitz-Eldor, Chief, Division of Obstetrics & Gynecology, and also cooperates with the Allergy, Immunology & AIDS Institute, Institute for Liver Diseases, and Viral Laboratory.

(*I-r*) Prof. Itskovitz-Eldor and Prof. Rafi Beyar host Dr. Hezi Levy, Head of Medical Administration, Ministry of Health, and Mr. Yonatan Karni, CEO, Israel AIDS Task Force. disease, and is chronic and manageable, not even a minor reason for stigmatizing it exists!

Prof. Shimon Pollack

Director Allergy, Immunology & AIDS Institute



ELEMENTARY, DEAR WATSON



The nucleus of a single human cell contains 23 paired chromosomes. Under the microscope, these appear rather like paired, striped stockings. Tucked inside In order to "see" the genes, scientists will tag these segments with a *probe*, a chemical structure that emits a color specific to each gene. The explanation is delivered by nephrologist and molecular geneticist Prof. Karl Skorecki, Director of Medical and Research Development at Rambam, whose Molecular Medicine Laboratory at the Technion's Rappaport Institute investigates various populations' genetic susceptibility to such common scourges as cancer and kidney disease.

So elegant is DNA's structure that scientists, looking at it in the lab, have sought beautiful language with which to describe it – a *double helix*, a *coiled ladder* – and artists have rendered its side members (the sugar-phosphate backbone) and 3 billion rungs (chemical-base pairs) in silver and gold studded with gleaming gems (histone proteins).

each chromosome is a long, looping molecule of *deoxyribonucleic acid* (DNA) whose segments are *genes*, discrete units of heredity.

As for the secrets of DNA applicable to clinical medicine? Rambam is on the case.

The Mystery of the Missing Mutations



Chronic, progressive kidney disease (CKD), which is the prelude to end-stage kidney disease (ESKD), afflicts over 30 million individuals in North America. In about half of the individuals with CKD, the underlying cause is diabetic injury to the kidneys. In most of the remaining patients, a group of other causes prevail.

Persons of West African heritage are at four-fold higher risk for developing nondiabetic end-stage

On the Culprit's Trail

Prof. Skorecki's team, composed of researchers from Israel, Canada, England, and Ethiopia, had also focused on the MYH9 gene. But they were puzzled; they could find no mutations on that gene with a likely functional effect that might account for nondiabetic ESKD.

In March 2010, with the release into the public domain of the *1000 Genomes Project Dataset*, they and other teams received a windfall. *1000 Genomes* is an evolving dataset that currently aims to compile population-based whole sequence information on 2,500 individuals. The pilot data contained the complete genomes of 180 individuals.

kidney disease (ESKD) compared with Caucasians of European origin. Persons of Hispanic heritage (because that population is admixed with a West African heritage population) are at two-fold higher risk.

Population geneticists, suspecting that these health disparities cannot be attributed solely to socioeconomic, cultural, dietary or environmental factors, have hypothesized African ancestry as a contributing factor.

In order to test this theory, a number of research groups around the world, including Prof. Skorecki's laboratory, have looked at results obtained from the DNA analysis of blood samples taken from African Americans and Hispanic Americans, as well as from individuals from populations currently residing in Africa.

Using genome-wide analysis methods, the scientists searched for disease risk markers (the scientific term is *single nucleotide polymorphisms* [*SNPs*]). They identified a genomic interval on

sleuths conjectured that in the case of susceptibility to ESKD, the MYH9 gene was acting not causatively, but solely as a physical proximity signpost. Applying computerized data mining methods, they looked again at the DNA interval that includes MYH9 and neighboring genes, but this time, they looked beyond the circumstantial evidence pointing to MYH9. They were looking for a protein-changing mutation or mutations with explicit disease-causing biological mechanisms.

Their search was rewarded. The team discerned mutations in the shape and function of the *apolipoprotein L-1* coded to the APOL1 gene, which they have predicted will be found to cause heightened vulnerability to renal injury.

ESKD is a multi-gene disease, but it's likely as close to a single-gene disease as any multi-gene disease will get.

Prof. Karl Skorecki

Director, Medical and Research Development

chromosome 22, comprising more than 30 genes, and then set out to look for point mutations in the region that would be predicted to modify cellular function.

Prof. Skorecki explains, "SNPs are telltale signposts that are predictive, but not necessarily causative, of disease." Since September 2008, researchers looking for a genetic reason for susceptibility to ESKD had focused on the MYH9 gene because it features a rare mutation that can cause kidney failure.

Prof. Skorecki states bluntly: "The scientific community jumped to the wrong conclusion, and focused exclusively on the wrong gene for almost two years."

Based on data by the United States Renal Data System (USRDS), 32 million Americans have chronic kidney disease (CKD). Of these, 550,000 patients have progressed to end-stage kidney disease (ESKD) and are on life-sustaining dialysis. Five thousand Israelis have ESKD and are receiving dialysis treatments; based on this figure, and extrapolating from USRDS statistics, it is estimated that 300,000 Israelis have chronic kidney disease.

subsequently published with his co-authors in the July issue of the journal *Human Genetics*) simultaneously with the independent report of similar findings by another research group based at Harvard.

.

Of these, Prof. Skorecki's team analyzed 119 whole genome sequences, 60 of European origin and 59 of West African origin. The

On June 21, 2010, at Sunnybrook Health Sciences Centre in Toronto, Canada, Prof. Skorecki announced the discovery (which was

Following the Clues

A significant clue that led Prof. Skorecki's team to focus on the APOL1 gene is the absence of the alleged culprit mutation in the 306 Ethiopian individuals whose DNA analysis had been included in the scientific community's previous investigations of MYH9. Prof. Skorecki's team had noticed that Ethiopians are relatively protected from kidney disease. They suspected a causative link. Furthermore, the APOL1 gene was already known to be involved in resistance to African sleeping sickness. This disease is caused by an infectious pathogen that attacks the brain and results in coma and death. It does not occur in North America, but is still prevalent in certain regions of Africa and is thought to have been a major cause of death in the past. This detail has led Prof. Skorecki's team to suspect that increased vulnerability to kidney failure among persons of West African heritage in North America may be related to their forebears having acquired protection from African sleeping sickness in the ancestral past.

"The challenge is now to prove the biological and epidemiological relationship between mutations on the APOL1 gene and the risk for kidney disease, and to develop preventive and therapeutic interventions," Prof. Skorecki says. He and his team plan to pursue their hypothesis in collaboration with nephrologist Dr. Sheldon Tobe of Sunnybrook and other colleagues worldwide.

P5



The same set of data that is mined by scientists for patterns of genetic disease in populations also holds answers to historical mysteries.

Dr. Doron Behar of Rambam's Molecular Medicine Laboratory, directed by Prof. Karl Skorecki, and Prof. Richard Villems, Director of the Estonian Biocentre in Tartu, are the lead authors of a report in the June 9, 2010 issue of *Nature* that has announced the most comprehensive mapping of the Jewish genome. The researchers' comparative genetic analysis of individuals whose ancestry traces to 14 Diaspora communities and 69 worldwide non-Jewish populations has yielded findings consistent with the traditional historical narrative of Jewish origins in the Levant followed by migrations and varying degrees of assimilation and admixture with local non-Jewish populations.

The research team also included scientists and scholars from Italy, Portugal, Russia, Spain, the United Kingdom and the United States. The names of these countries could not be more evocative for they recall major stations in the 2,000-year Jewish Diaspora. •

RAMBAM-HARVARD TEAM'S One-Two Punch



Rambam's Prof. Jacob Rowe (*far right*) hosts Beth Israel Deaconess Medical Center/Harvard Medical School colleagues (*I-r*) Prof. Mark Zeidel, Chairman, Department of Medicine; Dr. Jacalyn Rosenblatt, Division of Hematology/Oncology; Prof. Lowell Schnipper, Chief, Division of Hematology/Oncology; and Prof. David Avigan, Director, Hematologic Malignancies/Bone Marrow Transplantation Program.

Think of it as a video game with clear-cut bad guys, good guys, and a team of championship gamers alert for the surprises and shifting rules generated by the game itself – and for the recalcitrant mysteries at the game's core.

In this case, the bad guys are cancer cells. The good guys, a daring duo, are *antigen-presenting cells (APCs)* and *T cells* – white blood cells that work together and are essential to the body's immune response. APCs *present* (point out) foreign bodies to the T cells, which attack and destroy the interlopers. But

cancer is an aggressive and resourceful disease. Cancer cells damage the biological process by which APCs present intruders to T cells for destruction. The gamers are clinical researchers. For the past five years, a multicenter team from Rambam Health Care Campus and Beth Israel Deaconess Medical Center/Harvard Medical School has worked to develop a vaccine able to prevent cancer recurrence in patients with chemotherapy-induced remission.

On April 27, 2010, team members met at Rambam for a conference entitled "Cancer Vaccine and Immunotherapy Program."They discussed the outcomes to date of a joint Rambam-Harvard Phase I-II interventional prevention trial involving 42 patients with multiple myeloma (MM), a hematological malignancy of the white blood cells in the bone marrow. A combined Phase I-II trial is intended to test the efficacy and toxicity of an experimental drug or vaccine.

Team member Dr. Irit Avivi, Senior Attending Hematologist in the Department of Hematology and Bone Marrow Transplantation, under the direction of Prof. Jacob Rowe, explains that in the lab, the researchers mechanically fused MM patients' APCs and myeloma cells. The fusion cells were produced at disease presentation, then frozen and stored. Meanwhile, trial participants underwent chemotherapy until their disease level became minimal. At this point, they received the fusion cell vaccine in an attempt to rouse the immune system against residual MM cells.

"In most evaluable cases, we found that the patient's immune system worked against the tumor, and in many patients, we saw durable remission," Dr. Avivi reports, adding that the researchers will next test fusion cell vaccines on patients with leukemia and kidney cancer. \bullet

ON A QUEST

In Israel, all holidays begin on the preceding eve. On December 31, 2009, Rambam ushered in secular New Year 2010 with the 3rd Annual Research Seminar. Prof. Scott L. Friedman delivered the Rafael Research Alumni Honorary Lectureship; LHCRIR Charter Members gastroenterologist Prof. Yehuda Chowers and molecular pathologist Dr. Edmond Sabo described their progress in studies generously supported by the Legacy Heritage Fund; and Class of 2010 Etai Sharon Memorial Fellows presented their

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I see a great future! In another five to ten years, we will have here in Bat Galim a major center of biomedical activities that will include one hundred research groups led by Principal Investigators – approximately 60 Technion Members and 40 Technion Faculty of Medicine affiliated Legacy Heritage Clinical Research Institute at Rambam Members plus 500 graduate students and research assistants. It's for the good of Haifa, the Galilee and the State of Israel.

Prof. Ido Perlman

research results to date. •

Dean, Rappaport Faculty of Medicine Technion-Israel Institute of Technology

3rd Annual Research Day, Rambam Health Care Campus

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Physicians are always primed to ask the correct questions; they need protected time to pursue the answers.

Scott L. Friedman, MD

President, American Association for the Study of Liver Diseases Fishberg Professor of Medicine and Chief of the Division of Liver Diseases Mount Sinai School of Medicine in New York

Keynote Speaker, 3rd Annual Research Day, Rambam Health Care Campus

BEYOND POLITICS

In late May 2010, a confrontation between Israel Navy commandos and foreign activists aboard the Turkish-flagged ferry Mavi Marmara ended tragically. Nine Turkish nationals were killed, and seven commandos and dozens of activists were wounded. Israel Air Force helicopters evacuated the most severely injured to Rambam.

"Doctors do not busy themselves with politics," Director General Prof. Rafi Beyar soberly stated in answer to a reporter's question as he strode into ER. There, the wounded adversaries had been placed side by side in Shock Trauma Room beds and then wheeled into parallel surgical suites for lifesaving operations.

"We treat all of our patients with the same professionalism," Prof. Beyar added, "and the most advanced medical expertise is provided to everyone."

In June, Dr. Margalit Lorber, Head of the Autoimmune Diseases Unit, directly experienced the diplomatic fallout from the clash when she traveled to a pre-G8 Summit event in Ottawa, Canada to deliver a keynote address entitled "The Feminization of AIDS." As she rose to speak, the Turkish delegation walked out in protest.

Prof. Bevar's words ring true, however. In the contest within the human psyche between belligerent and destructive urges and creative, healing and constructive impulses, physicians strive to realize the humanitarian ideals of their profession.

For instance, also at the pre-G8 Summit, Dr. Lorber was cordially approached by Afghani pediatrician Dr. Massouda Jalal, who raised the idea of cooperation between Israel and Afghanistan. Dr. Jalal, who received the UN Watch's Morris B. Abram Human Rights Award for 2010, has served her country as Women's

REPUBLIC OF CAMEROON -Senior Physician Dr. Yoav Berger and Chief Resident Dr. Sergiu Socea of the Department



of Ophthalmology conduct 55 cataract and glaucoma operations on children and adults at the Centre Hospitalier d'Essos in Yaounde, and also train local medical teams to perform the procedures.

CHILE – Four months after Chile is hit with an 8.8 earthquake followed by a tsunami, Dr. Moshe Michaelson, Director of the Trauma Unit, and Gila Hyams, RN, Director of the Teaching Center for Trauma Emergency and Mass Casualty Situations (MCS), lead an Israeli delegation to that country, where they train 300 rescue unit personnel.

CHINA -Gynecological oncologist Dr. Amnon Amit spends 3 weeks in Xinghua teaching laparoscopy to young physicians, and also performs laparoscopic surgeries to remove ovarian and uterine tumors from 18 patients.



Affairs Minister from 2004-2006 and was a candidate for her country's presidency in 2002.

Dr. Avraham Lorber, Director of the Pediatric Cardiology Institute and Adults with Congenital Heart Disease Service, is Dr. Margalit Lorber's husband and the other half of an Israeli couple that travels the globe sharing their medical know-how.

In June, he was at home in Israel and at Rambam to direct the third in a series of four intricate surgeries to repair the heart of Nikolay Bocharnikov (7), who lives with his family in an agricultural station of Krasnodar Federation in Russia.

Nikolay was born with a univentricular heart. "Leave the child to die," the regional-hospital specialist had advised. Through the grapevine established by families in Russia whose children had successfully undergone lifesaving cardiological interventions in Israel, the distraught parents found their way to Dr. Lorber. He assured them that with appropriate medical intervention, Nikolay stood a 95% chance of survival and of enjoying a reasonable quality of life.

How is it, Dr. Lorber is asked, that the small State of Israel has medical expertise so keenly sought by nations around the world?

"Our excellent physicians have the gifts," he answers, "and there is qualitative surgical activity at Rambam, but our skills have been learned abroad where there is a critical mass of interventions that provides us with invaluable experience."

Rambam has shared Israeli medical expertise with more than a dozen countries in Africa, Asia and Europe and also as far afield as South America:

UGANDA – In Masaka, 25 physicians, nurses, teachers, and community workers attend a 2-week course in which Dr. Margalit



Lorber conveys the latest medical knowledge concerning HIV.

PALESTINIAN **AUTHORITY** – In August 2010, Dr. Mo'men Kharraz of Rafidia Hospital in Nablus completes two years of



advanced orthopedic surgical training at Rambam under the auspices of the Peres Center for Peace.



ETHIOPIA – Prof. Moshe Berant, Chair of the Clinical Studies Ethics (Helsinki) Committee, leads workshops at Addis Ababa Medical School to assist that institution in obtaining World Health Organization (WHO) certification for conducting clinical research.



PORTUGAL -Twenty-five Portuquese physicians travel to Rambam for 10 days of advanced



Mass Casualty Situations (MCS) preparedness training.



SOCIALIST REPUBLIC OF VIETNAM - Drs. Avraham and Margalit Lorber travel to Da Nang Hospital, where he teaches local physicians to perform lifesaving therapeutic catheterizations for children with congenital heart disease, and she teaches prevention of mother-tochild HIV transmission.

FORMER SOVIET UNION (FSU) STATES – Thirty healthcare professionals from Belarus, Georgia, Russia, Ukraine and Uzbekistan come



to Rambam for advanced training in caring for HIV carriers.

P7

President of the engineering firm

SMi) co-hosted the event, which

included a cocktail reception and

gourmet supper at handsome and

historic Club 357c. Prof. Beyar also

lectured at the

Montreal Heart Institute and met

the Faculty of

Medicine at

with the Deans of

McGill University

de Montréal.

and the Université





(*I-r*) Chief Rabbi Lord Sacks; Mr. Eitan Wertheimer, Friend of Rambam and Capital Campaign Co-Chair; Prof. Jacob Rowe, Director of the Department of Hematology and Bone Marrow Transplantation; Mr. Ron Prosor, Ambassador of the State of Israel to the Court of St James.

LONDON – Chief Rabbi Lord Jonathan Sacks is pictured sounding a silver shofar presented to him by Director General of Rambam Prof. Rafi Beyar. The occasion was a reception hosted by the Chief Rabbi and his wife, Lady Elaine Sacks, at their home on May 11th. The convivial evening brought together prominent London Jewish Community members with representatives of Rambam's leadership echelon, among them Prof. Aaron Ciechanover and Mr. Eitan Wertheimer. The aim was to recruit a Board of Directors to lead an expanded and reinvigorated British Friends association (BFRAM), of which the Chief Rabbi has graciously agreed to become the patron. Stanley Brodie QC has set an example by becoming the first charter member. Among the organizers who gave generously of their time were Malka Leon, who attended with her husband, Amnon, Leora Torn-Hibler, who attended with her husband, Shimshon, Mr. Amir Levy of Goldman Sachs UK, and Mr. Lior Hannes, who represented the IDB Group. •

A Friend in Deed

For the past seventeen years, British Friends has been directed by one extraordinarily dedicated volunteer, Anita Alexander-Passe. Her quiet and consistent efforts have brought a steady stream of *tzedakah* our way, which we have used to replace obsolete medical equipment and modernize hospital facilities. We can't think of higher praise for Anita and her values than that expressed by her



granddaughter, Anoushka Alexander-Rose (*pictured*). Anoushka has decided to use some of the gifts that she received for her Bat Mitzvah to purchase new equipment for our Children's Hospital.





husband and flanked by (*I-r*) Mr. Adam Emmerich,President, American Friends of Rambam Medical Center (AFORAM); Prof. Rafi Beyar, Director General, RHCC; and (*far right*) Mr. Yair Kagan, Executive Vice President, AFORAM. On

CANADIAN FRIENDS SALUTARY EVENTS

MONTREAL – Vieux Montréal (est. May 1642) is so lovely in springtime that the heart expands! Prof. Rafi Beyar was there – also in May – to expand his listeners' scientific understanding of the heart at an event entitled "Cardiovascular Innovations: Where Engineering Meets Medicine." P.M. Johnson, former Premier of Québec, was among the guests. Henri Elbaz, Former Executive Director of the Jewish General Hospital, arranged Prof. Beyar's visit, and Gérard Laganière and Bernard Poulin (the latter is

TORONTO – In 2009, the gift of an Oncology Hospital for Rambam's new West Campus was announced by the Fishman Family in loving memory of Joseph Fishman. On August 11, 2010, Dr. Esty Golan, Chief Administrative Officer of RHCC, was guest of honor at an outdoor reception at the home



Friend of Rambam

Henri Elbaz

of Moti and Nati Fishman, son and daughter-in-law of the late Mr. Fishman, whose daughter and son-in-law llanit and Noam Cohen were among those attending. The event was held to introduce 60 guests from the Israeli community in Toronto to Canadian Friends of Rambam (CFRAM), and was held in the presence of the Consul General of Israel in Toronto, Mr. Amir Gissin. Nati Fishman and Nahariya native Orly Meyer organized the evening. Guest vocalist Paula Valstein entertained. Dr. Golan is pictured at far right with hostess Nati Fishman and guests Mr. and Mrs. Moshe Rosen, dear friends of the late Joseph Fishman.

TORONTO – In 2007, Mr. Sammy Ofer contributed \$25M for the Northern Regional Underground Emergency Hospital. The project requires additional tens of millions of dollars for its completion. In May 2010, in order to help raise funds for the new facility, Canadian Friends turned the underground parking garage of Greenwin Square in Toronto into the replica of a hospital complete with doctors, patients, and equipment. Board member Marilyn Gotfrid introduced RHCC Director General Rafi Beyar and Dr. Michael Halberthal, Director, Pediatric Cardiac Critical Care



(*I-r*) Friends of Rambam Barry Green, Barry Alper, and Larry Zimmerman

Unit at Rambam, to the over 150 people in attendance. The event was sponsored by Greenco, the Danbury Group, Minden Gross LLP, and Verdiroc Development Corporation.

Boston Been

Israel's achievements in the life sciences, medical robotics, solar and water technology, and more were on display in Boston from April 30-May 9, 2010 at Congregation Mishkan Tefila and the Museum of Science during Israeli Innovation Week, which attracted thousands of visitors. Director General Prof. Rafi Beyar was among the keynote speakers. Friend of Rambam Robin JR Blatt arranged our participation in the museum show. Visitors to the Rambam exhibit interacted with computerized simulations that invited them to diagnose and "treat" atrial fibrillation and ischemic heart disease, and to grow pulsating human heart cells and heart tissue from stem cells. Lisa Woliner (*pictured below, right*) of AFORAM patiently instructed children in how to use the computer program.

NEW YORK – "I hear something about a child or an elderly person in need of medical attention and I want to do something, but to be effective, you need to focus your energy – Sandy taught me this" says Joan (Mrs. Sanford) Weill, pictured with her March 3rd, the couple opened their Manhattan home to American Friends. Mrs. Weill appears holding a 1st century CE Roman unguentarium (cosmetic flask) of light amber glass, which was presented to the couple by Rambam. •

The opening event took place at Mishkan Tefila in the context of the third Alan J. Tichnor Memorial Weekend, whose theme was *Healing the World through Technology*. The event was made possible through the generosity of Sid and Nancy Lejfer.





Well-Appointed

Please welcome Michele Segelnick, who has been appointed Deputy Executive Director of American Friends of Rambam Medical Center (AFORAM). Ms. Segelnick most recently served as Director of Development, Hebrew Academy of the Five Towns & Rockaway, in Lawrence, New York. She brings to her new position more than two decades of fundraising experience on behalf of local Jewish schools and Israeli hospitals.

NURSES' STATION



"

Research and technology have dynamically transformed medicine, but human needs and feelings don't change. If we don't relate to the patient's soul, we will have added to the patient's suffering.

Hanna Admi, RN, PhD Director of Nursing

"Why is there consciousness? Why do we have a soul? You can have a whole course in biophysiology and never hear the word soul," said psychoanalyst Prof. Yoram Yovell of the University of Haifa, setting the day's tone. The occasion was the Department of Nursing's Second Annual Conference, which took place on March 17th in Spencer Auditorium and was dedicated to the subject of holistic mind-body healing. Guest and in-house speakers addressed the meliorating powers of medical tai chi, music therapy, *relaxation guided imagery (RGI)*, and related techniques. Dr. Simon Vulfsons (*pictured, far left*), Deputy Director of the Pain Relief Unit, didn't keep it theoretical; he asked his listeners to close their eyes, and led the audience in meditation. •

Gen Rx

In 2010, fifty 9th graders from *Ironi Aleph* Junior High

Mazel Tov to

Editor-in-Chief

Shraga Blazer,

Department of

Neonatology,

on the June 10th launch of

the Rambam

Maimonides

Director,

School in Haifa came to Rambam for a pilot course intended to provide them with insights into the medical profession. The pupils toured hospital departments, attended lectures by senior physicians and nurses, and participated in practical workshops devoted to basic resuscitation, emergency and trauma care, the heart and vasculature, and organ donation and transplantation. The pupils also took part in two large-scale Home Front Command exercises testing hospital preparedness for mass casualty situations (MCS) and chemical warfare attacks.



Mrs. Ilana Siman Tov Dodeles, RN, Hospital Nurse Resuscitation Coordinator, teaches pupils to perform cardiopulmonary resuscitation.

Neonate



Medical Journal (RMMJ). The international, openaccess, peer-reviewed journal is published online only at *www.rmmj.org.il.* Guests attending the Rambam Summit received the handsome inaugural issue in hard copy, and it will surely be a collector's item for Israel buffs: the first-ever

KUDOS!

medical center affiliated scientific journal to be published in this country.

On July 21st, Prof. Blazer, accompanied by Associate Editor Prof. Rafael Beyar, Director General of Rambam, and Deputy Editors Professors Michael Aviram, Ian M. Gralnek, and Jacob M. Rowe, went up to Jerusalem to present the first fruits of their endeavors to the Knesset's Science and Technology Committee. They were received with warm congratulations by Minister of Science and Technology Prof. Daniel Hershkowitz, MK, Committee Chair Meir Sheetrit, MK, and the Chief Scientists of the Ministry of Science and Technology and the Ministry of Health.

Young Artists



Beauty and meaning were enhanced at Rambam on February 4th, International Cancer Prevention Day, with the opening of an exhibit of drawings by children hospitalized in pediatric oncology units in the Middle East and the United States. The event was held in the context of "The Day I Will Never Forget" project, which was initiated in 2007 by the Middle East Cancer Consortium (MECC). Children from Cyprus, Egypt, Israel, Jordan, the Palestinian Authority, Turkey, and the USA participated. Pictured representing Rambam is young artist Lena Ibrahem, who appears with her mom, Miriam; they are flanked by (far I and r) Social Worker Siwar Makhoul-Khoury and Art Therapist AnaLia Magen Schlyfestone of the Pediatric Hematology & Oncology Department.

Kudos to recently published Rambam authors and editors Dr. **Ahmad** and **Guennady Yudkovsky** of the Rappaport Faculty



Schein's Common Sense Emergency Abdominal Surgery: An Unconventional Book for Trainees and Thinking Surgeons / Editors Moshe Schein, Paul N.





Assalia, Deputy Director, Department of Surgery B; Dr. **Doron Behar**, Senior Physician, Department of Critical Care Medicine, and RHCC-based coauthors Prof. **Karl Skorecki**, Director, Medical and Research Development, of Medicine and Research Institute; Prof. **Shraga Blazer**, Director, Department of Neonatology; and Prof. **Diana Gaitini**, Director, Ultrasound Unit, Department of Medical Imaging. Rogers, Ahmad Assalia; Editorial Adviser/ Robert Lane. Springer-Verlag New York, 2010. Thieme Medical Publishers, 2010.



Doron Behar and Richard Villems et al. The Genome-Wide Structure of the Jewish People. Reprinted by permission from Macmillan Publishers Ltd: *Nature* 466, 9 June 2010: 238-242, copyright 2010.



Rambam Maimonides Medical Journal / Editor-in-Chief Shraga Blazer. Rambam Health Care Campus, 2010.

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