



EMERGENCY TRAUMA CENTER RENOVATION TOP PRIORITY FOR RAMBAM HEALTH CARE CAMPUS

A renovated Emergency Trauma Center is currently the top priority of Rambam's campus wide *Vision of Adam* master plan, with a more than triple expansion from 800 sq m to 3,000 sq m planned to meet the high turnover of referred patients, and protective features required in the event of natural or manmade catastrophic disasters.

"Our dream is to render ER into a full emergency medicine center 24/7. That means a self-reliant ER with emergency medicine specialist physicians trained to provide primary care to every incoming patient, backed up by nurses qualified in emergency medicine (e.g., trained to perform an x-ray for a contusion of the hand or to understand the results of an EKG), by consultants and by a fully computerized and equipped department.

"Currently our patients are divided into internal medicine, surgical, trauma, ENT and other subspecialties, but our ideal and the leading concept in the world today is that emergency and trauma treatment should be holistic – a myocardial infarction [patient] lying next to a trauma [patient] lying next to a gynecological [patient] and so forth. It would be ideal if I had all my own doctors and nurses 24/7 because then I could implement protocols and control the scene."

The speaker is Dr. Fuad Basis, Medical Director of ER at Rambam. He strides into a late-afternoon interview with *Rambam On Call* straight from having spent 20 minutes resuscitating a patient in the Shock Trauma Room. His stethoscope dangles over the shoulders of his open medical coat, and he's in blue jeans. He doesn't sit down. The skin at the cor-

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RAMBAM AT 70



Rambam Health Care Campus (RHCC) is a 1,000-bed, full service teaching hospital and Israel's largest medical center. Located in Haifa, Israel's third largest metropolis, Rambam serves more than 2 million residents – one third of Israel's population – from Hadera in the south to the Syrian and Lebanese borders in the north. RHCC is a tertiary referral center for 11 district hospitals, the Israel Defense Forces (IDF)

Northern Command, the US Navy Sixth Fleet and the UN Peacekeeping Forces posted in the region. We are the North's exclusive provider of comprehensive treatment in such disciplines as neurosurgery, oncology and trauma.

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RHCC is pleased to inaugurate our newsletter for Friends of Rambam

INTERVIEW: PROFESSOR RAFAEL BEYAR

DIRECTOR GENERAL, RAMBAM HEALTH CARE CAMPUS

Women's Division / Dr. Phillip and Sarah Gotlieb Professor of Medicine and Biomedical Engineering, Technion – Israel Institute of Technology

Q What led you to choose a medical career?

A In school, I always liked science and because my father was a urologist, I absorbed medicine from home. When I registered for university, I put chemistry first and medicine second. Eventually, I decided on medicine because you do a lot of chemistry. Afterwards, I studied engineering. The attraction is really to science. I love to understand nature through the molecules and how they interact in life.

Q What did you do immediately after finishing med school?

A I did a fascinating stint as a physician on the ski slopes of Mount Hermon and discovered the beauty of skiing. Then, I served as a battalion physician in the Golani Brigade. In 1982, I was in charge of a



medical field unit with 10 physicians treating wounded soldiers from the fierce battles of the First Lebanon War. Afterwards, I earned my Doctor of Science degree in Biomedical Engineering at the Technion, and then started my medical training with residency at Rambam, followed by a fellowship at Johns Hopkins University.

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GREETINGS FROM DISTINGUISHED RESEARCH PROFESSOR AND NOBEL LAUREATE IN CHEMISTRY AARON CIECHANOVER



Dear Friends,

I am delighted to greet you on the occasion of RHCC'S 70th anniversary and to invite you to participate in the launch of *Rambam on Call*.

I have been associated with Rambam Health Care Campus for almost four decades now. I started as

"I deeply believe that physicians that are also involved in basic science provide better clinical service to their patients because they are humbled by their appreciation of nature's complexity and therefore weigh their clinical decisions with the greatest of care."

an intern there in 1972 and served as an intern during the 1973 Yom Kippur War. In the following

► cont. p2

GREETINGS FROM
DISTINGUISHED RESEARCH
PROFESSOR AND NOBEL
LAUREATE IN CHEMISTRY
AARON CIECHANOVER
CONTINUED FROM P1

years, when I was still deliberating on my career – basic research or clinical medicine – I did night shifts in the Department of Surgery and Emergency Room at Rambam. Because Rambam is the main teaching hospital of the Ruth and Bruce Rappaport Faculty of Medicine at the Technion, which trains our future physicians and of which I have been an active member since the 1970s, the hospital has remained part of my focus throughout my career.

Problems from medicine drive biological research; it is therefore essential that a basic research institution dedicated to studying mechanisms of malignancies and inflammatory and neurodegenerative disorders, and to developing rational, mechanism-based therapeutic modalities, be an integral part of a modern hospital. Research performed in such an institute will be based on clinical data and will call for tight cooperation by physicians and patients.

All modern medical developments – new drugs, diagnostic devices such as computerized tomography and therapeutic devices such as cardiovascular stents – represent the results of research efforts undertaken in response to contemporary medical problems.

Furthermore, we need inquisitive patients that understand the mechanisms of diseases and the benefits and side effects of treatment, and can make decisions together with physicians concerning their fate; in this spirit, Rambam has made public education concerning healthcare and prevention of diseases a major part of its activities.

For all these reasons, when Rambam established its Scientific Advisory Board in preparation for building its planned Biomedical Discovery Tower, I gladly agreed to chair the esteemed body of researchers entrusted with determining research directions and methods for integrating the biotechnology industry with the hospital in order to harvest the fruits of inventions by scientists and physicians.

It is my pleasure to invite you to read in the following pages about RHCC’S current development plans and most recent achievements in medical research, clinical care and public healthcare education.

Warm regards,



Prof. Aaron Ciechanover, MD, DSc
Distinguished Research Professor
Laureate, the 2004 Nobel Prize in Chemistry

Chair, Scientific Advisory Board
Rambam Health Care Campus

Vascular and Tumor Biology Center
Rappaport Faculty of Medicine & Research Institute
Technion-Israel Institute of Technology

INTERVIEW:
PROFESSOR RAFAEL BEYAR
CONTINUED FROM P1

Q And you did your fellowship in –
A Cardiology. My research in biomedical engineering started with CPR; I developed a pneumatic vest that can pump blood through the body at times of cardiac arrest. This was the subject of my PhD thesis at the Technion, and I continued that research at Johns Hopkins. Cardiology is a fascinating subject because the heart is a pump that works all the time and involves physics and mathematics.

Q What have you learned over the years from your colleagues?
A I’ve learned a lot from both my colleagues and students – from those who work under me, above me, and side by side – from all my deputy physicians. I trust and honor each one in his or her own domain.

I took my first steps in medicine under Prof. Gerald Brook, Director of Internal Medicine (ret.) at Rambam. I took my first steps in research under Prof. (ret.) Samuel Sideman, Head of Biomedical Engineering at the Technion, and Prof Uri Dinnar, my DSc Instructor; we applied engineering principles to cardiology and, in 1984, founded the Heart System Research Center at the Technion, focusing on mathematical analysis and imaging of the cardiovascular system.

Prof. Mike Weisfeldt, current Chairman of the Department of Medicine at Johns Hopkins, was my mentor during my fellowship at Johns Hopkins [1985-1987] where, at the time, he was Director of Cardiology. He taught me the global approach to science, how to do medical research in an international way and be a professional cardiologist at the international level.

Q What do you mean by “doing medical research in an international way?”
A We did research together, and you absorb by being with a leader in science. [Prof. Weisfeldt] modeled certain qualities such as having a vision of what you want to achieve in life and how to interact with colleagues. He imparted understanding of the global impact of your research. He taught me about the humanity of medicine – that in dealing with a patient, you should be empathic as well as professional.

Q And what have you learned from your patients?
A A lot! How to approach them. How to listen to their needs and what they expect from you. That your goals as the physician should be humble and realistic. You are an extremely important figure at that point in time in their lives. You have to listen, be assertive, tell the truth and respect them. The relationship that you build is the bridge to their hearts. You can be a very successful surgeon, but first of all you have to cross the bridge to their hearts.

Q What persuaded you to take on an administrative position?
A I would define my position as leadership. It wasn’t easy for me to decide because it’s a long-term duty that takes most of my time away from my

major hobby – cardiology; it has always been so since I started my training in cardiology in 1983. I continue to spend at least one day a week in the catheterization laboratory doing angioplasty and stenting procedures, working on patients.

But I was convinced that leading Rambam towards academic medical leadership is important. What really convinced me is that Rambam is a major academic medical center; education and research are part of daily life here, and also we are tightly linked to the Technion’s Faculties of Medicine and Engineering. So, here on the same campus we have medicine, science and engineering, and this interaction, which is the unique feature of this institution, has a message for the future of medicine and meshes with my path in life.

Q Please describe for us “a day in the life” of the General Director of Rambam Health Care Campus.
A Every morning, I’m busy with some aspect of our *Vision of Adam* development plan – meetings regarding the development program, equipment purchase, contracts with healthcare providers. Of course, it is within my main responsibility to attend to all the medical aspects at Rambam and, since we are committed to excellence in clinical care and research, I hold consultations with our physicians and researchers. For example, we clinicians collaborate with engineers at the Technion. Ideas come from daily practice. We, among other institutions, are collaborating with Prof. Moshe Shoham, Head of Medical Robotics at the Faculty of Medical Engineering, on the development and implementation of new robotic systems with several clinical applications.

On top of that, I have meetings with Ministry of Health officials regarding our government budgeting for Rambam’s current top priority – fortifying our Emergency Trauma Center, modernizing it and tripling it in size, and upgrading it to meet safety standards in wartime.

Q You said that you practice medicine at least one day a week. What does it feel like to hold a beating human heart in your hands?
A I’m not a surgeon so I’m not actually holding a heart in my hands, but I am touching the coronary arteries with the tip of my catheter. When I’m doing an intervention, I enjoy talking to the patient while putting in the stent to open his blockage. Before the procedure, I plan it precisely and make sure that I have everything I need. I have to be extremely professional and to work in an extremely precise and timely manner, ready for any possibility. The procedure is very safe today, but you should always be ready for potential complications. The feeling is that the life of the patient is in your hands.

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Rambam
on Call

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RAMBAM HEALTH CARE
CAMPUS 2007 STATISTICS

Hospitalizations	72,000	Births	4,400	Inpatient Wards	36
Emergency Visits	123,000	Beds	1,000	Medical Units	54
Outpatient Visits	524,000	Physicians	715	Medical Institutes	9
Surgeries	22,000	Nurses	1,407	Central Laboratories	9
Catheterizations	2,500	No. of Employees	4,000	Buildings	7

EMERGENCY TRAUMA CENTER
RENOVATION TOP PRIORITY
CONTINUED FROM P1



ners of his eyes betrays fatigue, but as soon as he begins describing his profession and the needs of his patients and staff, the dark eyes flash with energy, warmth and wry humor. He’s been an emergency physician for 20 years; “It’s in my blood,” he says. “I like the adrenalin, the action, making fast and crucial decisions.”

Dr. Basis counts off ER’s troubles on his fingers, speaking urgently as if in bullet points:

“Physical Overcrowding – ER was built 20 years ago and can accommodate barely 70,000 patients, but it actually receives more than 120,000. It’s so overcrowded that sometimes we shove 2 beds within the same cell, and some beds are even scattered outside of ER. We have only 50 beds, but sometimes we have 90 patients; we put them in wheelchairs because we lack beds. We have no place for our physicians to sleep, either – they sleep on the floor, in the storeroom; it’s veterinarian conditions, like a kennel!

“Lack of Staff – Emergency medicine is a specialty that you learn by doing. For example, someone comes in with a trauma *and* a blood pressure condition, or a chest contusion *and* a cardiac infarction. For the moment, in Israel, emergency medicine is a second specialty – first you qualify in internal medicine, surgery, pediatrics, anesthesiology or family medicine and then you spend an additional 2.5 years to qualify as an emergency doctor. Today, I have about 9 emergency physicians, but I need an additional 12 to 15 – the American Dream [laughs].

Between 3:30 PM and 7 AM, we have a huge consumption of consultants because we have only 2 emergency medicine residents; the rest are residents in other specialties.

“Lack of Equipment – For example, if I have to perform an emergency echocardiogram in the Shock Room, I have to order [the device] from the cardiology department 200 meters from here; I have to call in a technician or cardiologist, and that could take more than half an hour, or maybe I have to transfer the patient.

“If I want to perform a FAST [Focused Assessment with Sonography for Trauma] to check intra-abdominal bleeding, the x-ray guy has to come with it. Or a C-PAP – that means Continuous Positive Airway Pressure [to facilitate breathing] in case of pulmonary edema – it’s noninvasive, but the equipment isn’t permanently here, so we have to intubate the patient, to invade. It lowers the quality of care and endangers the patient; it’s an impossible situation!

“And we need small equipment for subspecialties – an ultrasound to check urinal retention, a slit lamp to examine the eye for foreign bodies, basic equipment for ENT and for measuring blood pressure. We are lacking electrothermometers, a glucometer,

an EKG, a satsurometer... Also, the plan is to render ER into a paperless environment, and for that we need a lot of hardware and software.

“Unsafe! – Half of ER is under the [9-floor Central Wing] building [est. 1973], but half is in the air. During the [2nd Lebanon] war, they could have hit us.”

In August 2007, in response to these unacceptable conditions, Friend of Rambam Mr. Nochi Dankner partnered with the Jewish Agency to contribute \$4 million toward enlarging, equipping and fortifying a new Emergency Trauma Center at RHCC, and the cornerstone was laid.

Another \$7 million in donor funding is required before the plan is realized, but when Dr. Basis imagines the future, he smiles broadly and speaks in present tense:

“The new building? It’s very practical and very beautiful! We built it – I and Head of Department Dr. [Moshe] Michaelson – a world renowned traumatologist and our chief trauma physician – and Head Nurse Hagar Baruch, Deputy Head Nurse Tzvi (Gregory) Mushnik, and others. We met with the architects and planned our new ER with the emergency vision in mind.”



Shock Trauma Room: Medical personnel work to save a young woman’s life.



THE RAMBAM
MISSION

- To deliver patient-oriented, state-of-the-art healthcare and preventive medicine with a warm human touch
- To educate future physicians and allied health professionals
- To provide an inspiring home for basic and applied medical research in life sciences and biomedical engineering, with the aim of better understanding disease
- To apply biomedical research discoveries to improved clinical care
- To energize contemporary medical practice while accelerating the creation of the medicine of tomorrow

RAMBAM AT 70
CONTINUED FROM P1

RHCC originated as the Municipal Hospital of Haifa. It was founded in 1938 by the British Mandatory Government, which commissioned celebrated Bauhaus architect Erich Mendelsohn to design the original building (today’s Erich Mendelsohn Wing). The Mandatory authorities built their proud hospital on a lovely, half-moon shaped headland, historically the site of Khayfa al-Atika (ancient Haifa), at the base of Mount Carmel and northwest of the Port of Haifa (est. 1933).

With the establishment of the State of Israel in 1948, the young hospital came under government jurisdiction and was renamed Rambam for 12th-century physician-philosopher Rabbi Moses ben Maimon (Maimonides or the RAMBAM). The designation signaled the hospital’s aim always to be guided by the RAMBAM’s practice of superlative devotion to patients and to the art of healing. This ideal finds resonance in the Prayer of Maimonides (see P6).

Under the farsighted leadership of Prof. Rafael Beyar, CEO and Director General of RHCC and Dr. Phillip and Sarah Gotlieb Professor of Medicine and Biomedical Engineering at the Technion, our medical center enjoys synergetic partnerships with the Ruth and Bruce Rappaport Faculty of Medicine and its independent, central research arm, the Rappaport Family Institute for Research in the Medical Sciences, both located on the Rambam campus; the Technion’s Faculties of Engineering and Biomedical Engineering; and more than half a dozen biomedical technology companies. Plans call for expanding this synergetic network to include a clinical research institute and biotechnology incubator to be established on campus in the Biomedical Discovery Tower (pictured) to be built for the purpose.

Rambam senior physicians serve among the Rappaport Faculty of Medicine’s lecturers and researchers and the Rappaport Institute’s cadre of researchers; have inspired scientists and engineers to develop novel patient-oriented healthcare technologies; and in their quest to understand and conquer disease, have made major discoveries in the areas of hybrid imaging technology, embryonic stem cell research, and human-population genetics.

Most recently, RHCC’S ambitious 5-year, \$300 million *Vision of Adam* development plan has received the Haifa Regional Planning and Construction Committee’s imprimatur and, as importantly, been approved by local environmental groups. Friends of Rambam Mr. and Mrs. Eitan Wertheimer are leading the project’s social-venture capital campaign. The plan calls for large-scale construction of new buildings and the renovation, expansion and maintenance of existing facilities, and is designed to keep Rambam at the leading edge of 21st century medical research, teaching and clinical care.



HYBRID IMAGING: CUTTING-EDGE DIAGNOSIS AND TREATMENT MINUS THE KNIFE

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Prof. Ora Israel, Director of Research Operations and Nuclear Medicine at Rambam Health Care Campus, has won the Jewish National Fund's Samuel and Paula Elkeles Prize for 2006 in recognition of medical-research excellence. The prize acknowledges Prof. Israel's contribution to the development of hybrid imaging, one of the world's currently most advanced functional imaging tools, which she has achieved in collaboration with her team of Rambam based clinical sci-

entists and physicists and industry based engineers.

The subject of Prof. Israel's research is the combining of x-ray computed tomography (the familiar CT or CAT scan) with radionuclide positron-emission tomography (PET) and single-photon emission computed tomography (SPECT) scans. The aim of these hybrid imaging technologies is to provide physicians with a clearer non-invasive look inside the patient's body for diagnostic and therapeutic pur-

poses than has previously been possible.

Clinicians including, among others, oncologists, endocrinologists and cardiologists at Rambam and all over the world have implemented this new technology to detect malignant tumors in early stages and precisely target their treatment; assess the clinical significance of coronary artery disease; and diagnose and precisely locate the source of infection in patients with prolonged fever. ●

ELECTROPHYSIOLOGIST SINGS THE BODY ELECTRIC

Prof. Lior Gepstein of Rambam's Department of Cardiology has been awarded the Israel Cardiology Society's Mayerovsky Cardiology Prize for 2007 in recognition of his exceptional accomplishments in applying embryonic stem-cell research to cardioregenerative medicine. Prof. Gepstein is also recipient of the American College of Cardiology's Douglas P. Zipes Distinguished Young Scientist Award for 2006.

Prof. Gepstein's research is predicated on the heart's natural electrical activity.

For 6 years, Prof. Gepstein and his colleagues, who include leading stem-cell researcher Prof. Joseph Itskovitz-Eldor, have pursued the goal of using embryonic stem-cell generated heart tissue to replace damaged human heart tissue. The research is intended to render obsolete today's mechanical pacemakers, which are lifesaving but troublesome because such

mundane devices as cell phones and microwave ovens interfere with their functioning and, worse, surgery is required periodically to replace the battery.

A visitor to Prof. Gepstein's lab is invited to gaze at the stained-liquid contents of a Petri dish. To the naked eye, this growth medium appears to be a dropper's worth of vin rosé; in fact, it is composed of human embryoid bodies (rounded collections of cells) loosely anchored in a feeder layer of mouse embryonic fibroblasts. The bodies are human cardiomyocytes (heart muscle cells) at just the point of having differentiated from generic stem cells.

Not for nothing is *rikma* – which also means embroidery, and is used in Israel for a girl's name – the Hebrew medical term for heart tissue. Magnified 200 times under the microscope, the pastel liquid in the Petri dish resembles a swatch of crushed satin; an Albert Elbaz or Dorin Frankfurt would be enchanted!

A denser, darker, rounded mass has concentrated near the fabric's center. These are cardiomyocytes at very nearly the beginning of their lives. Every few seconds, like an eye's blinking, they pulsate in unison. There could not be a clearer expression of the human will to live and heal.

Billions of these cells must be cultured before embryonic stem-cell generated biological pacemakers and heart-tissue transplants become a reality, but Prof. Gepstein is optimistic: "The way is long and hard, but meanwhile, it looks promising." ●



STEM-CELL RESEARCH + REGENERATIVE MEDICINE = GOOD CHEMISTRY



Prof. Joseph Itskovitz-Eldor, Director of our Department of Obstetrics & Gynecology, and Head of the joint Rambam-Technion Stem Cell Research Center (est. 2005), has received the Mifal Hapais Fund's Michael Landau Prize in Biotechnology for 2006. The award recognizes Prof. Itskovitz-Eldor's achievements in applied embryonic stem-cell research in Israel.

Human embryonic stem cells are derived from donated, 5-day-old preimplantation-stage IVF embryos. Prof. Itskovitz-Eldor's research is based on these immature cells' eternal nature; they can proliferate seemingly forever in the laboratory, and can replicate any of the human body's more than 200 cell types.

The story begins in 1997, when Prof. Itskovitz-Eldor initiated cooperation with leading stem-cell researcher James Thomson of the University of Wisconsin. By late 1998, as part of Prof. Thomson's team of developmental biologists, Prof. Itskovitz-Eldor had contributed to a thrilling scientific feat: the establishment of 5 independent stem cell lines – the first time that human embryonic stem cells had been successfully isolated and cultured.

Since then, Prof. Itskovitz-Eldor's laboratory on Rambam campus has generated the first human embryonic stem cell line produced in Israel. The Rambam-Technion Stem Cell Research Center is now pursuing a broad range of clinical applications. Experimental successes have included the development of human skeletal tissues, endothelial cells (which line the circulatory system), nerve cells, and a biological pacemaker (see *Electrophysiologist Sings the Body Electric*, left).

The researchers have high hopes that in future, this technology will lead to the improved treatment of burns, cancer, spinal cord injuries, stroke, and such neurodegenerative diseases as Alzheimer's and Parkinson's. Other potential uses include the prevention or treatment of birth defects, infertility or miscarriage; the growth of tissues for transplants; and the fast-tracking of drug discovery and testing. ●

RAMBAM HONES IN ON CANCER



In an excerpt from a wide-ranging interview to be published in the Spring 2008 issue of *Rambam On Call*, Prof. Karl Skorecki – prizewinning nephrologist and

geneticist, who is also Director of Medical Research and Development at RHCC and Director of the Rappaport Family Institute for Research in the Medical Sciences – describes how under Prof. Rafael Beyar's leadership, a synergistic dynamic has invigorated our campus and propelled Rambam to the forefront of international accomplishment in applied medical research.

"What distinguishes human embryonic stem cells from ordinary human cells is that they are pluripotent – they can specialize

into every cell in the body. That's why everyone got excited when Professors Itskovitz and Thomson generated a human embryonic stem cell line.

"The main focus, thrill and promise of applied stem cell research are in a separate field called regenerative medicine.

"My own interest in stem cells relates to cancer because I believe that stem cells hold the secret to understanding what goes wrong in cancer, and I'm not the only one. What stem cells and cancer cells have in common is that both

can reproduce themselves very massively, they can migrate to different parts of the body, and they create their own environment for nourishing themselves. But stem cells know when to stop and can differentiate [specialize] themselves whereas cancer cells just can't control themselves!

"Dr. Dan Hershko, a surgical oncologist at Rambam, works together with us on understanding the difference between stem cells and cancer cells at the molecular level. This is quite basic research, we are only at the beginning, but the point is that in the last 10 years, it has been known that

most of the cells in a solid tumor have no capability to really hurt the patient. Rather, a very small subset of these cells are the nefarious bad guys.

"By using normal human stem cells, my colleagues and I have been able to create a platform conducive to identifying these harmful stem cells that should be the target for anti-cancer treatment. Today, anti-cancer therapy is like a cannonball that knocks out all the cells and hurts the patients. We would like to do something much more targeted." ●

1ST LIEUT. GINO'S REAL MEDAL
 EXCEPTIONAL RECOVERY
 FROM SEVERE INJURY

by **Micha Peled MD**, *Director*
Department of Oral and Maxillofacial Surgery



L to R: First Lieutenant Ariel Gino and Rachel Mitteleir, Head Nurse, Department of Oral and Maxillofacial Surgery

In the first days of the Second Lebanon War of July-August 2006, during the ferocious Battle of Bint Jubayl [Hezbollah's stronghold in Southern Lebanon], First Lieutenant Ariel Gino

of the Golani Brigade's elite Egoz Battalion was shot in the face by a sniper. The bullet pulverized the young officer's lower jaw and caused his chin to tear and hemorrhage. With the help of his troops, he was evacuated to the Israel-Lebanon border, from where a heli-

copter transported him to Rambam. For his display of resourcefulness, determination and courage under fire, Lieutenant Gino was awarded the IDF Chief of Staff's Citation for Bravery.

In our Department of Oral and Maxillofacial Surgery, we used a portion of Lieutenant Gino's hipbone to reconstruct his jaw anew. Despite the complicated surgery, the young man's pain, and his inability to communicate and eat normally, he displayed mental strength and fulfilled all his missions on the path to recovery. He not only succeeded in returning to ordinary life, but also convinced everyone that he had remained a fighter in his soul and that his place remains the career military. Today, First Lieutenant Ariel Gino is again an officer in command of his elite unit.

For all the above, we in the Department of Oral and Maxillofacial Surgery salute him. ●

WOMAN OF VALOR
 CHILD OF PEACE



Mother and Baby at Rambam: "At first, I was afraid to come to Israel, but I was more afraid for my baby's life and had no doubt that I must come here. I have been received here with warmth and am happy that my son has recovered."

Deputy Director of the Department of Cardiac Surgery at RHCC, and Dr. Dudi Mishali, Head of the Department of Pediatric and Congenital Cardiothoracic Surgery at Sheba Medical Center.

The infant was born in As Sulaymānīyah in northern Iraq. His 29-year-old mother, aided and escorted by the Christian-American Shevet Achim organization (est. 1994), left her 3-year-old son at home and set out on a long, exhausting and courageous journey across Iraq and through Jordan into Israel in order to save her newborn's life.

Shevet Achim's mission is to realize peace in the Middle East by bringing ill children from Arab countries to Israel for advanced medical treatment unavailable in their homelands. Dr. Lorber comments, "We of course gladly agree to help." ●

A 3-week-old Iraqi baby boy underwent a complicated, 5-hour emergency heart operation at Rambam's Meyer Children's Hospital in April 2007.

"The neonate was suffering from a reversal of his aorta and a pulmonary artery," explains Dr. Abraham Lorber, Director of our Department of Pediatric Cardiology and Congenital Heart Disease in Adults. "As a result, his ability to use oxygen was 45% of normal – a situation in which his life expectancy could be measured in days."

The surgery was performed by Dr. Yaron Bar-El, Director of Medical Operations and

RECENT RENOVATIONS

OB-GYN ENJOYS SPRING 2007 REBIRTH

With 40 physicians, 110 nurses, 90 inpatient beds, 6 specialized units, a computerized patient database, and a capacity for 500 births per month, the Department of Obstetrics and Gynecology at Rambam is Northern Israel's largest and most advanced.



Despite all this going for it, in recent years the pregnant women of Haifa and the North were voting with their feet. Rambam's labor and maternity wards were working at 50% capacity!

Midwife Nellie Kahania Herman gives insights why:

"I'd worked here for 10 years. The walls were white, the floor tiles black, and there were thin walls – curtains, really! – between the delivery rooms. Women in labor could hear the birth voices of the other laboring women. I was at a point

where I said, 'Do I really want to work in this place with the black floor and the noise?'"

In Spring 2007, \$5 million in donations made possible the renovation of RHCC's labor and maternity wards for the wellbeing of birth mothers and medical staff.

"You can't compare – it's the difference between a tunnel and a palace!" Nellie enthuses as she escorts a visitor through her domain: 9 private labor and delivery rooms with powder blue Venetian blinds; tiled and

painted walls of pastel green, lilac, blue and yellow; tawny ceramic floor tiles; a dimmer switch and gentle bell call.

Adjacent to each labor room is a private toilet and shower equipped with a strong showerhead for hydrotherapy. The labor ward also features a glisteningly clean, white Jacuzzi for any woman who wishes to manage her contractions in the water.

The Stryker birthing bed can be controlled by the laboring woman and raised to a sitting position. Delivery options include

natural childbirth, childbirth with pain relief, and Caesarian section. The electrical infrastructure and what Nellie calls the "scary things" – e.g., oxygen, nitrogen and suction in case of complications – are kept behind cupboard doors.

The 4th-floor maternity rooms have also benefited from a functional and aesthetic makeover. Today, our birth mothers choose between rooming-in or nursery care for their newborns, and enjoy a spacious, comfortable nursing room and resort-style buffet dining.

Satisfied new parents have spread the word, as has a midwife-initiated and led course for expectant parents. Births at RHCC have risen to 450 per month and climbing!

Oh, and... did we mention that our labor and delivery rooms are located at sea level? In serene weather, just beyond the windows, the Mediterranean Sea extends like an immense infinity pool. It's true we can't credit Friends of Rambam with having provided so lovely and symbolic a view, but this perquisite of giving birth at Rambam is worth noting. ●

SAMMY OFER’S UNDERGROUND EXPRESS



L to R: Dr. Esty Golan, Chief Administrative Officer and Director of Global Resources, RHCC; Sammy Ofer's son Mr. Idan Ofer; Prof. Rafael Beyar, Director General of RHCC; Mr. Udi Angel, CEO of ZIM Israel Navigation Ltd.

For 33 days in July and August 2006, Rambam found itself at the forefront of Hezbollah’s war on the civilian population of Northern Israel. Hundreds of Katyusha rockets and Farjar missiles rained down on Haifa; 45 of them hit within a 500-meter radius of campus, but miraculously, all our buildings escaped unscathed.

During this time, RHCC’S 4,000 employees never missed a day of work. While under fire and in a nerve-wracking milieu of air-raided sirens and explosions, they cared for 792 injured civilians and soldiers and an additional 7,000 “routine” civilian emergencies. Whole wings with their patients were transferred to a large bomb shelter transformed into a makeshift underground hospital. 120 elderly patients were moved during a single night. 200 babies were born.

Fast forward to August 2007: Mr. Sammy Ofer, a native son of Haifa who grew up near the sea

not far from Rambam, and the Ofer Brothers Group pledge \$25 million to RHCC earmarked for two purposes – a 500-bed Underground Hospital to be used during wartime and other large-scale emergencies, and the renovation of our existing Departments of Surgery, Urology, and ENT.

At the pledge-signing ceremony, Mr. Udi Angel, CEO of Zim Israel Navigation Ltd., an Ofer Brothers’ affiliate, praised the donor’s magnanimity in these words: “Sammy Ofer is a businessman known throughout the world, but he always worries about Israel. The determination of the staff of Rambam during the war made us want to contribute. [Sammy] felt that the activities of the medical staff during the war deserved a medal, and that Rambam deserved a prize. It’s important to stress that the donation is given not only for devoted service during the war, but also for the daily dedication of the staff to the citizens.” ●



ARIELA & EITAN, RUTH & BRUCE, NOCHI & SAMMY & YOU

If you drop coins in charity boxes while shopping; if you keep extra coins in your pocket to place in the upturned box lids of clearly suffering street persons or in the instrument cases of young buskers stationed in the subways of the world’s most beautiful cities; if your social responsibility and good fortune have evolved so far in tune that you manage a giving portfolio of your favorite charities; if, for that matter, you’ve read this far into our first newsletter and find yourself pleased to be considered among the Friends of Rambam – then presumably you are aware of the hard questions today being asked of the donor-recipient relationship by Israel’s supporters abroad, both among themselves and in dialogue with Israeli beneficiaries.

We are thus especially pleased to bring to your attention recent, major gifts to Rambam Health Care Campus by Israelis Nochi Dankner, Sammy Ofer, Ruth and Bruce Rappaport, and Ariela and Eitan Wertheimer (pictured). These are encouraging indicators

that social-venture capitalism has come of age in Israel. These donors stipulate as a condition for giving that the State partner with them by investing a respectable share of government funding in projects benefiting Israelis; hold recipients of their largesse to the highest standards of institutional transparency and managerial accountability; intend that their example will inspire Israeli society at large to develop a stronger culture of charitable giving; and welcome YOU – Friends of Rambam abroad – as esteemed partners in RHCC’s expansion of our healthcare, teaching and research capabilities.



NOCHI DANKNER AND THE JA: TRUE FRIENDS IN AN EMERGENCY



L to R: Rami Mardor, President, IDB Foundation; Ami Erel, President of Daskash Co. of the IDB Group; Zeev Bielski, Chairman of the Jewish Agency; Prof. Rafael Beyar, Director General of RHCC

Also this August, with the cornerstone-laying for an enlarged and renovated Emergency Trauma Center at Rambam, a major first

step was taken toward realizing RHCC’S absolute top-priority construction project for lifesaving purposes in times of peace and war. Progress toward this goal is the fruit of a \$4 million donation by Mr. Nochi Dankner, CEO of the IDB Group, in joint philanthropic partnership with the Jewish Agency and its Executive Chairman, Mr. Zeev Bielski. When the new ER is built and equipped, its more than 120,000 visitors per year will finally receive

what they and their families deserve – the best, most timely emergency medical care available to people in the 21st century. Moreover, the Department’s doctors and nurses, who today labor under the harshest working conditions to be found at the hospital, will have what they need in order to deliver their professional best – a large, well-organized physical space and state-of-the-art diagnostic and therapeutic equipment at their fingertips.

See cover story for more details. ●

RUTH AND BRUCE RAPPAPORT: FOR THE LOVE OF CHILDREN



L to R: Ruth Rappaport; Bruce Rappaport; Mayor Yona Yahav; Irith Rappaport; Prof. Rafael Beyar, Director General of RAMBAM; and Prof. Amos Etzioni, Director of RHCC’S Meyer Children’s Hospital, with his granddaughter

Ruth and Bruce Rappaport of Haifa and Geneva, munificent contributors of long standing to the Technion’s Faculty of Medicine at RHCC, the city of Haifa and the State of Israel, have pledged \$16.5 million for the construction of the 15,000 sq m Ruth Rappaport Children’s Hospital, which will also receive government funding and is slated to open in 2.5 years. On October 7th, at a festive cornerstone-laying ceremony emceed by daughter Irith, Mrs. Rappaport addressed a large crowd of well-wishers including

her husband, a number of the couple’s adult children and young grandchildren, family friends, Mayor Yona Yahav, the RHCC leadership and staff, and pajama-clad youngsters currently being treated at Rambam: “The dream of establishing a children’s hospital in Haifa, my husband’s native city, was born during the Second Lebanon War and was accepted with pleasure by Professor Rafi Beyar and his colleagues at a difficult hour when the city of Haifa and Rambam Hospital were suffering heavily under enemy bombardment.

“In my life, I have not been blessed with a greater honor than my dear husband has given me today. My sincere hope for this hospital bearing my name is that it will care for all the children of the State of Israel without religious, ethnic or gender bias, that the day will come when peace will prevail in our region, and that the parents of our neighbors’ children will seek for them efficient medical care here.” Look for our feature article about the Ruth Rappaport Children’s Hospital in the Spring 2008 issue of *Rambam On Call*. ●

FROM THE PRAYER OF MAIMONIDES

“Almighty God, Thou has created the human body with infinite wisdom. Ten thousand times ten thousand organs hast Thou combined in it that act unceasingly and harmoniously to preserve the whole in all its beauty the body which is the envelope of the immortal soul. They are ever acting in perfect order, agreement and accord. Yet, when the frailty of matter or the unbridling of passions deranges this order or interrupts this accord, then forces clash and the body crumbles into the primal dust from which it came. Thou sendest to man diseases as beneficent messengers to foretell approaching danger and to urge him to avert it.

THE RAMBAM “Thou has blest Thine earth, Thy rivers and Thy mountains with healing substances; they enable Thy creatures to alleviate their sufferings and to heal their illnesses. Thou hast endowed man with the wisdom to relieve the suffering of his brother, to recognize his disorders, to extract the healing substances, to discover their powers and to prepare and to apply them to suit every ill. In Thine Eternal Providence Thou hast chosen me to watch over the life and health of Thy creatures. I am now about to apply myself to the duties of my profession. Support me, Almighty God, in these great labors that they may benefit mankind, for without Thy help not even the least thing will succeed.”

Moses Maimonides (The RAMBAM)
b. 1135 Córdoba, Spain – d. 1204 Fostat (old Cairo), Egypt



TWO BIOMEDICAL DISCOVERY TOWERS TO BE BUILT AT OPPOSITE ENDS OF THE GLOBE



L to R: Prof. Aaron Ciechanover, Prof. Karl Skorecki, Dr. Esty Golan, Mr. Warren Buffett, Ariela and Eitan Wertheimer, Prof. Ora Israel, Prof. Rafael Beyar

On October 11th in beautiful Toronto, the weather had cooled, the leaves had turned, and biotech-research and philanthropic stars of Israel's Rambam Health Care Campus and Canada's University Health Network were out all day and well into the night for a major public medical symposium followed by a gala fundraising dinner. The events were dedicated to advancing the clinical science goals of both medical centers.

Dr. Robert Bell and Prof. Rafael Beyar, CEOs of UHN and RHCC respectively, greeted the symposium audience. Nobel Laureate Aaron Ciechanover, Chairman of the RHCC Scientific Advisory Board and Professor in the Ruth and Bruce Rappaport Faculty of Medicine at the Technion, delivered the Keynote Address.

Throughout the day, sessions followed dedicated to sharing news of recent breakthroughs in the clinical research disciplines of Stem Cells and Regenerative Medicine, Translational Genetics, and Advanced (Functional) Imaging Modalities. The sessions were delivered by paired UHN and RHCC Professors Rudi Von Harsdorf and Lior Gepstein; Peter St George-Hyslop and Eli Sprecher; and Brian Wilson and Ora Israel. Additional Rambam participants included Di-

rector of Medical Research and Development Prof. Karl Skorecki and Chief Administrative Officer and Director of Global Resources Dr. Esty Golan.

That night, participants reassembled to join approximately 200 guests at a fundraising dinner honoring legendary investor and philanthropist Warren Buffett. The event was initiated by devoted Friends of Rambam Mr. Eitan Wertheimer, President and CEO of Iscar Metalworking, and his wife Ariela. Mr. Buffett owns 80% of ISCAR.

The gala took place in the recently opened Royal Ontario Museum's Michael Lee-Chin Crystal, designed by deconstructivist architect Daniel Libeskind. Guests schmoozing over hors d'oeuvres and dinner had paid \$25,000 (CAD) a plate for the privilege of hearing Mr. Buffett and the UHN and RHCC clinician-scientists – but in fact, in following the example of Mr. Buffett, what they have purchased is priceless: a social-investment share in the construction of two Biomedical Discovery Towers to be built at opposite ends of the globe – one at RHCC in collaboration with the Technion and the other at UHN. The event raised \$4 Million (CAD), to be equally divided by the two medical centers, for this purpose. ●

HARVARD MED HOSTS RHCC EMERGENCY PREPAREDNESS MISSION

When Bostonian Dr. Ben P. Sachs, Chief of Obstetrics and Gynecology at the Beth Israel Deaconess Medical Center of Harvard Medical School, paid a wartime solidarity visit to RHCC in Summer 2006, he saw in action a medical-center emergency response model internationally acknowledged as the world's most advanced.

On Dr. Sachs' initiative, a delegation from Rambam was invited to address a Disaster Preparedness Conference held at Harvard Medical School in October 2007.

Mission participants included Prof. Shimon Reisner, Deputy Director of RHCC; Dr. Moshe Michaelson, Director, Emergency Department and Trauma Unit; senior trauma surgeon Dr. Hany Bahouth, Director,

Acute Care Service; and Trauma Coordinator Mrs. Gila Hyams RN, MA.

With half a world and more than a year between them and the air-raid sirens, concussive blasts, and stench of explosives that had characterized the Summer of 2006 in Haifa, the delegates described for their Harvard audience the experience of managing a tertiary medical center under sustained rocket attack, and moved their listeners with descriptions of the resilience of injured soldiers and civilians.

The delegates also observed a mass casualty drill at Beth Israel Deaconess Medical Center; toured Boston Emergency Medical Services; and represented Rambam at a CJP Boston-Haifa Life Sciences



On Mission in Boston: Dr. Moshe Michaelson, Director, RHCC Emergency Department and Trauma Unit

Initiative (BHLSI) reception, at which Drs. Sachs and Reisner delivered keynote addresses about Rambam in war and peace to approximately 200 business people, health professionals and financiers.

The Rambam mission was generously sponsored by the Combined Jewish Philanthropies of Greater Boston (CJP), with outstanding hospitality provided by Rely Dibner, Board Member, American Friends of Rambam Medical Center (AFORAM). ●

VISITING RAMBAM PROF DELIVERS EARTHSHAKING LECTURE



L to R: Amir Belson, MD, NeoGuide Systems; Phil Young, US Venture Partners; Levy Gerzberg, PhD, Zoran Corporation; Prof. Rafael Beyar, Director General, RHCC; Casper de Clercq, US Venture Partners; Alan Kaganov, US Venture Partners.

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RHCC ❤️ California despite its faults: the San Andreas, the Hayward, the Calaveras... and after all, we here in Israel have at least one major fault of our own (the Syrian-African Rift).

The dynamism shared by the city of Haifa and Silicon Valley – parallel concentrations of scientific brainpower, hi-tech based economic enterprise, and seismic energy – was made dramatically evident on the evening of October 30, 2007, when Silicon Valley’s elite gathered at Zoran Corporation Headquarters in Sunnyvale, California to meet Rambam Director General Prof. Rafael Beyar and Director of Medical Research and Development Prof. Karl Skorecki. Both physicians are chaired professors at the Technion’s Ruth and Bruce Rappaport Faculty of Medicine, where Prof. Beyar has served as immediate past Dean, and Prof. Skorecki currently serves

as Director of the Rappaport Institute for Research in the Medical Sciences.

RHCC is one of the very few medical centers in the world where excellent clinical practices coexist in close proximity with a scientific-engineering oriented Faculty of Medicine and a highly motivated, innovative and successful biomedical-technology industry, Prof. Beyar told his rapt audience.

The synergetic matrix on campus, he said, has generated world-class advances on patients’ behalf in such fields as cardiovascular rehabilitation, functional imaging, bone and joint repair, and human tissue engineering.

Prof. Beyar further shared news of the nearly dozen R&D initiatives and start-ups that Rambam has incu-

bated (e.g., medical devices, pharmaceuticals, and software for surgical planning) and invited his listeners’ scientific collaboration and financial investment.

The evening was hosted by the President and CEO of the Zoran Corporation, Dr. Levy Gerzberg, and his wife Liora. Co-sponsors included the American Friends of Rambam Medical Center, the California Israel Chamber of Commerce, and the BIRD Foundation. Dr. Gerzberg co-chaired the event with Dr. Dan Maydan, President Emeritus of Applied Materials, Inc. and a great friend of Israel.

The Gerzbergs delighted their Israeli guests by throwing a pre-Halloween party at Zoran as only Californians know how: spiders and witches decorated the venue, and the special effects surpassed anything Hollywood could produce – for at the precise instant when Prof. Skorecki projected for his audience a slide of human heart tissue, grown in the lab of Prof. Lior Gepstein and photographed just as it was about to pulsate... the earth quaked. U.S. Geological Survey (USGS) seismologists would measure the tremor at 5.6 on the Richter scale and locate its origin along the Calaveras Fault at a point about 5 miles northeast of where Prof. Skorecki stood at the lectern. Senior physicians were of course in the house, but fortunately nevertheless, no-one was hurt!

AMERICAN FRIENDS ELECT BOARD

On March 15th in New York City, Mrs. Frances Katz hosted a festive reception for the newly elected Board Of Directors of the American Friends Of Rambam Medical Center (AFORAM) and additional guests in honor of Prof. Rafael Beyar, Director General of RHCC, and Friends Of Rambam Eitan and Ariela Wertheimer.

Those present included AFORAM President Adam Emmerich, Senior Partner, Wachtell Lip-ton Rosen & Katz; AFORAM Treasurer and Secretary David Sterling, Chairman and CEO of Sterling & Sterling, Inc. Insurance; and Board Members Michael Foley and Harold Magid, both Traders on the New York Mercantile Exchange.

Also elected to the Board were AFORAM Vice President Harvey Krueger, Vice Chairman Emeritus of Lehman Brothers, and Members Aaron Spencer, Di-

rector and Chairman Emeritus of UNO Chicago Grill, and Relly Dibner, active supporter of Israeli and Jewish causes.



INTERVIEW: PROFESSOR RAFAEL BEYAR CONTINUED FROM P2

Q How do you relax when you’re not busy being the General Director of a tertiary hospital serving a third of Israel’s population or working as a senior cardiologist? What are your hobbies?
A I love to spend time with my family and kids – 2 daughters in their twenties, and 14-year-old twins, a boy and a girl. I like to visit Switzerland and Mount Hermon for downhill skiing in the winter, and to seek out beautiful beaches around the world in the summer when I and my family find time. I used to play classical guitar and wish I had more time for that, and I read a lot – scientific literature, science fiction, and world and Israeli fiction.

Q What are your professional dreams?
A I want to see Rambam continue to be a leader in medicine, a training center for students, interns and physicians and a world leader in science and technology. I want to see the *Vision of Adam’s* new hospital wings for our patients – and to see the

Biomedical Discovery Tower with labs and offices for physicians, researchers, scientists and engineers to interact in developing new ideas for medicine that will benefit not only our patients but also medicine worldwide.

I see the importance of medical innovation to the economy of Haifa. An academic medical center can influence a city. Beyond the impact on medicine, Rambam with its neighboring academic institutions will provide an incubating environment for the development of, for instance, new devices and drugs. With the right financial investments, this will lead to the establishment of new medical companies

and industrial activities and eventually to the development of a life-science park in the city.

I envision Rambam’s treating patients from our neighboring countries and training their physicians here. To my regret, today some of our neighbors are hesitant to come here; but we already work with the Palestinian Authority and Jordan, and most of the time we do establish excellent working relationships. We want to share knowledge and we have a common dream! Medicine has no borders. From medicine, peace will evolve, and really, as a leading medical center in the region, we will increasingly see much cooperation.

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