

ISRAEL HIGH-TECH & INVESTMENT REPORT

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Growing Confidence and Deepening Concern

We watched the deeply moving ceremonies at Ground Zero, the graveyard of 1,700 of the total of 2,800 people that perished, as a result of the terrorist attack on September 11, 2001. We saw the fly-past of American Air Force jets and were reminded of the many memorials and fly pasts we have witnessed in Israel. There was universal empathizing and it was obvious that most Israelis shared in a common feeling of unity and strength of purpose. For Americans, we compassionately understood, it is a new world, marked by changed attitudes and perceptions.

On that very same day, we learned that Israel is developing a new aviation defense technology that will enable it to identify planes with hostile intent. The new aircraft identification system would be ready for use within a year, Transportation Minister Ephraim Sneh announced: "The system has been developed. It is a system that can distinguish between 'friendly and unfriendly' aircraft," The Minister also said that Israel is preparing for the threat of missiles fired from rocket launchers at civilian airplanes. He said Israel Aircraft Industries was cooperating with Rafael - the Israel Armament Development Authority, in developing preventive measures against such attacks.

All of this was taking place, accompanied by a growing wave of rhetoric, emanating from Baghdad and Washington and suggesting the inevitability of a major conflict in which Israel would be involved.

Aware of the need of maintaining a posture of deterrence, Israel's direct spending on defense advanced by 4.2% to \$9.3 billion in 2001, as compared to its 2000 defense spending and reached the highest level since 1993, according to the Central Bureau of Statistics. The proportion of defense spending as a percentage of Gross Domestic product stood at 7% in recent years, after gradually dropping from 14.8% in 1982 to 7.2% in 1997.

Israel's spending on defense is two to six times that of

other industrial nations. The U.S. and Britain, for instance, spend less than 3% of their GDP on defense.

Even among free spending Middle Eastern nations, Israel is the leader, with 9%. Syria is spending less than 6% of GDP on the average while Kuwait spends 7.5% and Egypt 3%.

Israelis tend to feel confident that defense spending is providing a high level of deterrence and therefore, leading to a heightened

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feeling of security.

Yet, there is the threat posed by suicide terrorism and "personal attack" with biological weapons. We are aware of individuals acquiring a potential for sowing mass destruction. This issue justifiably causes concern. "Personal power" has replaced the power that previously was in the domain of full scale armies. Yet Israel, which has labored and fought for so many years, has never been readier and more determined to maintain its way of life.

The Money Game

In spite of concern brought about by a global recession and in the shadow of acts of terror, the Israel Journey '02, the Sixth Israeli Venture Capital & High Tech Entrepreneur Conference was held in Tel-Aviv, the first week in September, a week before the Jewish New Year. As Israelis tend to take the last of the summer vacations at this time of the year. Surprisingly, the Tel-Aviv Hilton was filled to overflow capacity. More than 1,400 attendees participated. Some of them attested to "being comeback survivors" of the era of the "burst bubble". In the aftermath of the stock market collapse, many Israeli high-tech entrepreneurs were left without companies to run, and high-tech personnel were left to search for jobs that were scarce.

At the conference we met entrepreneurs, venture capitalists, investment bankers, attorneys and other service providers.

One friend that we met was Sol Gradman who was managing Netex, a company launched in Israel in late May 1999. It immediately captured the attention of the Internet-using Israeli surfer. The number of Internet users in Israel early in the year 2000 surpassed the 100,000 mark. The figure was growing at 10,000 new users a month. "In another year the non-English language side of the net is expected to reach 173 million users vs. 168 million English-language users. We are rapidly moving into Europe, to introduce Netex to the German, French and Spanish speaking public," Sol Gradman, Net Express Ltd., Chief Executive Officer, was quoted in our July 2000 IHTIR interview. Netex, the company Mr. Gradman headed, had plans to offer its smart routing services on mobile communication platforms like cellular phones and other wireless appliances. However, Netex failed as a business and those dreams were shattered. Today a much more

experienced and visibly self-confident Sol Gradman is the Israeli CEO of the Israeli based research and development unit, owned by the Silicon Valley based Monterey Design Systems.

Ernst & Young Israel, one of the sponsors of Ventures '02 sounded a note of optimism "that at a low level venture capital funding had stabilized in the second quarter". Yoram Tietz, an Ernst & Young Israel partner projected that available cash for investment and demand by the high-tech industry has balanced out.



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In due course existing Israeli enterprises will respond to a reawakened global economy. Business activity whether in 2003 or 2004 will pick up. What is somewhat worrisome is the relative dearth of local capital for startup and early stage technologically oriented companies.

A survey conducted by the accounting and consulting firm, Deloitte and Touché - Brightman Almagor found that Israeli venture capital fund managers are becoming increasingly pessimistic. 44% of respondents in the VC Indicator survey for the third quarter of 2002 conducted, reflected belief that the economic climate will deteriorate in the next six months, compared with 27% in the previous quarter. The survey covered 49 venture capital funds that account for 85% of Israel's investment market. All the survey's respondents expect that they will face difficulties in raising money for new vc funds, in the months ahead. Of the respondents, 63% expect that funds will merge; 57% expect more limited partners will withdraw from the funds; 53% expect that more funds will reduce their management fees; 48% expect to continue returning money to investors; and 66% expect that the activities of secondary funds will expand in the next six months. This is not all bad news. Israel's venture capital industry, as we had noted is overcrowded, a result of the boom days of the late 1990s. We predicted, a year ago, that a shakeout is both likely and a good idea..

CByond's-- CMOS Imaging Technology: Miniaturized Cameras with "See through Blood Capability" and "3Dimensional Stereoscopic Display"

CByond Inc., and its fully owned research and development facility in Nesher, Israel is emerging from its development stage. It has firmly positioned itself to enter the lucrative American market as a result of its July agreement with an unnamed American company, that is a major factor in the endoscope industry. The American firm has expressed its faith in CByond's technology and management by acquiring a minority investment. More importantly, it has contracted to purchase an estimated \$20 million of CByond's unique miniaturized image enhancing video cameras. These are miniature, re-useable as well as disposable, video cameras that are attached to the tip

CByond's disposable miniature cameras, deliver clear, three dimensional images and that "see through blood". Minimally Invasive Surgery offers a natural market for the company's miniaturized cameras.

of a flexible (or rigid) endoscope or catheter (distal-end camera). The technology is a combination of innovative optical solutions, electronic components and proprietary algorithms.

An endoscope is an instrument that visually examines the interior of a bodily canal or hollow organ such as the colon, bladder stomach or lung.

A camera on the endoscope sends the image to a processing unit. The unit then relays the picture to a recorder, which projects the image onto a screen or monitor to guide the physician. CByond's miniaturized video cameras lend themselves not only to diagnostic applications but for endoscopic surgical procedures in what is generally described as Minimally Invasive Surgery (MIS).

Medical practitioners express enthusiasm about the quality of the pictures produced by CByond's camera's.

Prof. Hylton Miller, director of the catheterization department at Tel-Aviv's Sourasky Medical Center says " that the quality of the picture is better" than what he obtains today using the most advanced catheters, when performing angiography procedures. What appeals to Prof Miller is not only the clarity of the digital picture and its quantitative ability to assess perspective, but also the economics of the company's technology.

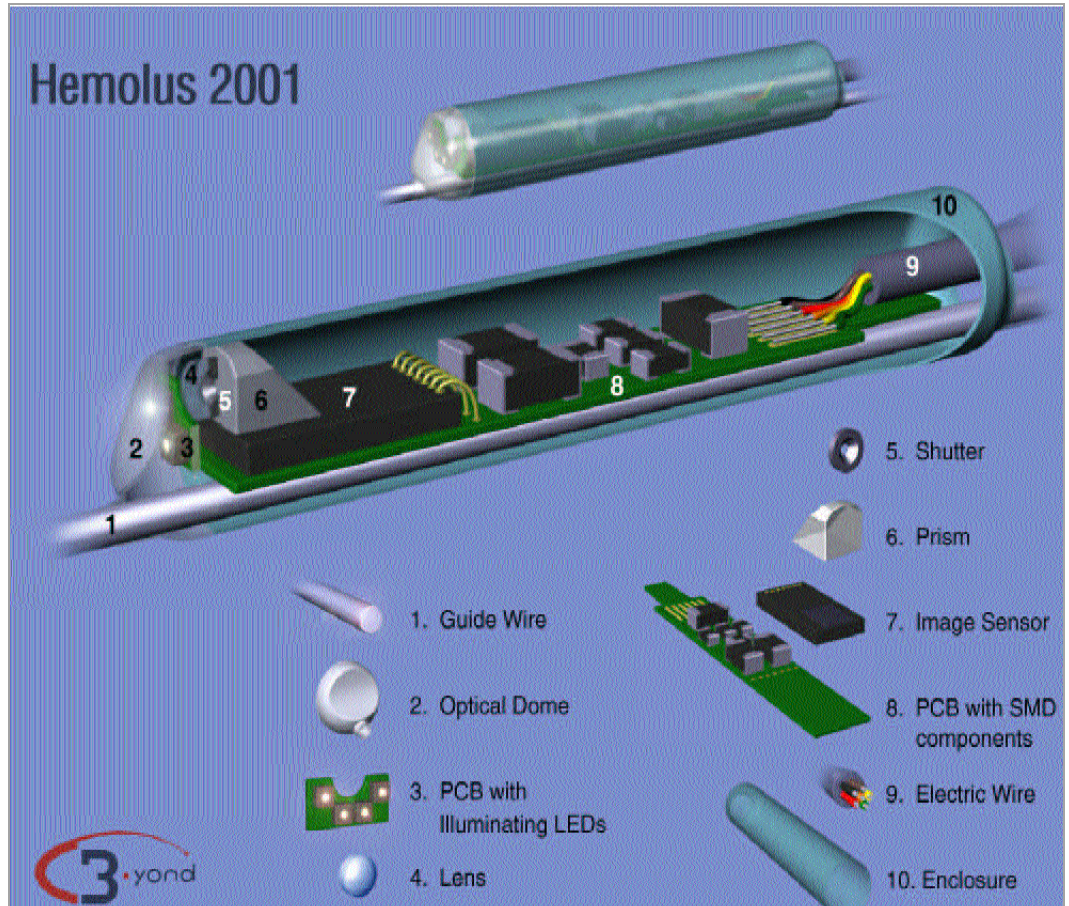
Presently interventional cardiologists, except for a handful of centers, do not have the use of expensive angioscopes to view the inside of coronary arteries in their patients. A London based Professor of interventional cardiology and director of cardiac research & development has also expressed interest in applying the company's technology to obtain information about the dimensions of heart vessels. This information could be used facilitate the placement of cardiac stents into position.

"We will shortly be supplying cameras that will be integrated into endoscopes used in urological applications. These are in the order of 5mm in diameter and will be integrated into endoscopes in the order of 5 mm. These could be used, as well, for gynecological and bronchoscopical applications. Our next generation endoscopes will meet the 2.5mm and 1.5mm. size and will offer the sizes needed by interventional cardiologists. These will have

advantage of "seeing" tiny details and structures that were not visible before and will help in diagnosing individuals who may be harboring "vulnerable plaque, the substance that forms in heart arteries and poses risks of heart attacks," explains Ofer Pillar, CByond's CEO.

Pillar, and Dr. Doron Adler, CTO --both experts in medical image processing and medical technology --founded CByond in 1999. Together they have a combined 34 years of experience in the engineering, development and management of sophisticated medical devices and companies. "CByond's cameras use proprietary Complementary Metal Oxide Semiconductor

(CMOS) sensors, together with optical image deformation for capturing images. These deformed images are reconstructed onto a monitor, using proprietary algorithms and electronic processing. These revolutionary "visual probes" are unique by virtue of their miniature size (1.5mm -5mm diameter), and their ability to measure distance and geometry. Their true three-dimensional stereoscopic imaging and proprietary electro-optical design allow doctors to see through blood, urine, liquids and gases. In addition, the cameras have superior image quality and the ability to interface with other miniature medical robots and automated surgical devices," explains Dr. Adler. Ofer Pillar points out that CByond's cameras incorporate low-cost CMOS sensors and light sources that reduce the cameras' manufacturing cost while maintaining the ability to produce picture resolution that is superior to competing technologies. The low cost of the cameras enable it to be disposable, thus eliminating the costs of cleaning and sterilization processes. The miniaturization achieved with the CMOS camera allows the capture of high-quality intravascular video pictures with minimal invasiveness to the cardiovascular system. With a camera diameter of only 1.5mm, the probes will be small enough to fit



inside narrow areas, and offer a picture resolution that is many times better than the currently popularly employed fiber-optic cameras.

With a strong intellectual property shield, Ofer Pillar is currently in intensive contact with leading members of the medical community in order to fine tune the CByond technology to the needs of the users. This is setting the stage for entry into new applications where endoscopic procedures are in use.

Dr. Ephraim Eviatar, an ear nose and throat surgeon and deputy director of the ear nose and throat department of the Asaf Harofe Hospital is cooperating on sinus operation applications. " During sinus surgery I am faced with blind spots when my instruments enter areas where there is blood. The "seeing through blood" capability of CByond's endoscope as well as the three dimensional view of video images are major steps up for ENT surgery," explains Dr. Eviatar.

Dr. Philip Kaplan, who practices general and surgical dentistry is highly enthused about the "clarity of CByond's pictures". He has consulted in the past to a dental startup and is cooperating with Ofer Pillar on a novel application.

The National Institute for Child Health and Human Development works with Rhesus Macaque Monkeys

as models for human developmental phenomena. Currently, they are in the process of developing a fetal model in non-human primates and are interested in observing the fetus in utero. The NIH has turned to CByond and expressed interest in its camera to observe fetal behavior.

"Given that we currently use a catheterization system and are aiming to facilitate minimally invasive fetal surgical procedures, CByond's technology may be suitable for incorporation into our procedures", states an NIH researcher.

CByond has identified several segments of the overall global endoscopic market estimated at about \$5 billion with an average annual growth rate of 13.5%.

With present endoscopic visualization equipment (cameras, light sources, and recorders) set to surpassing \$650 million in 2001, it is expected to grow annually by 6%-7%. While this figure represents the replacement of the installed base, it does not bring into account the "disposable" endoscopic applications that CByond is intent on developing.

Initially funded by its founders, the company raised \$1.2 million in seed capital. As it is rapidly transitioning from its research and development stage to "about to ship" its first product, it has embarked on a financing round which will bring in \$2.0 million.

Eluting Stents: a Revolution in Heart Care in the Making

A new approach, holding out great promise in the treatment of heart attacks, the most common cause of death in the Western world, is the use of drug coated stents. Two years ago, Johnson & Johnson, the leader in the field of medicated stents, launched first clinical trials, which included 35 medical centers in Europe and Israel. Two hospitals that participated in Israel, were the Hadassah Medical Center in Jerusalem and Haifa's Rambam Medical Center.

Technically named "eluting stents" they are a step up on bare metal stents, which are widely used to keep clogged arteries open. The problem with bare metal stents is that they fail to avoid relogging of arteries in up to one third of all cases. The drug

coated versions, which give off drugs that help halt cell development, have so far shown much lower rates of relogging or restenosis. New clinical test data is expected to further confirm the previous results

The three most prominently mentioned entrants into the medicated stent market are: sirolimus coated stents, rapamycin coated stents, and paclitaxel coated stents. A year ago, at the Congress of the European Society of Cardiology in Stockholm, investigators reported early results from the RAVEL trial, a trial examining the efficacy of a drug coated stent made by Johnson & Johnson. In the follow up period of 210 days the reported results indicated that there was no restenosis in patients receiving the drug coated stent in the RAVEL trial.

Investors and leading contenders for a share of the coated stent market are aware that drug eluting stents have the potential to lift the \$2 billion coronary stent market to \$4 billion to \$5 billion, in a few years after their launch. Most analysts have indicated that the producers should enjoy impressive profit margins as drug eluting stents cost around three times as much as "bare" stents.

Boston Scientific Corp. (NYSE:BSX), is expected to be close on the heels of Johnson & Johnson, according to analysts. Word is spreading in the industry, that Boston Scientific's 537 patient TAXUS

The Current Status of Eluting Stents in Israel

Medicated stents or drug eluting stents, viz. the Cypher, sirolimus eluting stent of Johnson and Johnson has been approved for use by the Ministry of Health, but it is not in the basket of MHO approved and reimbursable items. So, if somebody wants a Cypher, he pays \$2600, not recoverable from Kupat Holim, Israel's National Healthcare System. Hospitals are prepared to allow interventional cardiologists to insert this stent on condition that the patient brings the stent with him. J & J have organized an arrangement in which the Lavie company, acquires the stents from J&J. The patient pays Lavie who supplies it to him directly to the catheterization laboratory. The patient signs a declaration accepting the condition that he cannot recover the cost of the stent from the hospital or from Israel's National Healthcare System.

It will cut restenosis rates to 1 to 3 percent. This is the first large scale test of the drug Paclitaxel, used by Boston Scientific.

J&J, with its Sirolimus coated Cypher stent, was the first to commercialize one of these lucrative devices in Europe. Guidant Corp. (NYSE:GDT), the leader in the bare metal stent market, also has a drug coated stent approved in Europe, but it has as yet to launch it commercially due to a legal struggle with Boston Scientific.

Israel's Contribution to the Global Stent Industry

Prof. Hylton Miller, an interventional cardiologist and director of the catheterization unit at Tel Aviv's Sourasky Medical Center pointed out, and as we first wrote in IHTIR in the mid-1990s of the exciting, rapidly developing field of medical stents which emerged in 1996 as an adjunct to conventional balloon angioplasty. It quickly became one of the fastest growing fields in medical devices. Previously, the treatment of choice, for atherosclerotic plaque was balloon angioplasty, with more than 80% of the cases being so treated. However, since the dilated blood vessels became narrowed, cardiologists have added a stent, (a coiled metal spring), inserted in the heart blood vessel after angioplasty which improved overall results.

Israeli medical researchers were in the forefront of medical stent research and development. Medinol Ltd. an Israeli medical device company developed a medical stent in 1996. The US Boston Scientific was quick to see its potential and signed Medinol to a marketing agreement for its Israeli stents.

Additional cardiac and general stents and systems originated from researchers at the Technion, Israel's Institute of Technology. In the late 1990s Medtronic acquired InStent whose product line was designed in Israel. Prof. Rafael Beyar, now dean of Haifa Medical school was the Israeli developer of the stent and holder of the patents.

Israel Aircraft Industries' Backlog at All Time Record

During a recent presentation to IAI's board of directors, Mr. Moshe Keret, IAI's President and CEO said that, "the company's marketing organization

reached remarkable achievements, in an unstable environment and weakness in some of IAI's markets. In the first half of 2002 IAI signed new contracts amounting \$1.7 billion, which brought the company's backlog to an all time record level of \$4.4 billion. This backlog will enable us to renew our growth with the recovery of the commercial markets.

Genetic Mutation, Most Common In Ashkenazi Jewish Population, More Than Doubles Risk of Colorectal Cancer

A genetic mutation, most often found in the offspring of Ashkenazi Jews, can double or even triple the risk of colorectal cancer, according to new data from an international study published in the Sept. 20 issue of Science.

The relationship between mutations in a gene called BLM and increased susceptibility to colorectal cancer was discovered independently by two teams of scientists who analyzed DNA from nearly 3,100 people of Ashkenazi Jewish ancestry living in northern Israel and New York City. The mutation is found in about one percent of individuals descended from an ethnic population, called Ashkenazi Jews, who formerly lived in Eastern Europe.

"When this mutation is inherited from both parents, it increases an individual's predisposition to cancer," said Stephen B. Gruber, M.D., Ph.D., director of clinical cancer genetics at the University of Michigan's Comprehensive Cancer Center and first author of the Science paper.

"Until now, carriers of one mutant copy were thought to have no increased cancer risk. But our data show that people who inherit the mutation from just one parent face a two- to three-times greater risk for colorectal cancer," Gruber added.

The Israeli data in the Science paper are the first to be published from the Molecular Epidemiology of Colorectal Cancer (MECC) study – a collaboration between Gruber and Gad Rennert, M.D., Ph.D., of the Technion-Israel Institute of Technology Faculty of Medicine and Carmel Medical Center in Haifa, Israel. The New York data for the study was collected independently by scientists at Memorial Sloan-

Kettering Cancer Center working under the direction of Kenneth Offit, M.D., and Nathan A. Ellis, Ph.D.

Although the mutation can be detected with DNA analysis, Gruber stressed that it is too soon for DNA tests to be used as a screening tool or a guide to treatment.

Colorectal cancer is the leading cause of deaths from cancer in Israel and the second leading cause of cancer deaths in the United States. Over 2,000 people are diagnosed with colorectal cancer in Israel each year, but incidence rates vary widely among different ethnic groups. Nearly 150,000 U.S. residents were diagnosed with colorectal cancer in 2002.

A companion paper in the same issue of *Science*, by researchers at the University of Cincinnati, showed that transgenic laboratory mice designed to carry the human BLM mutation, have the same increased risk of cancer.

The results show the value of combining molecular genetics with traditional epidemiology in cancer research.

Rennert and Gruber's goal is to understand the interactions between genetic and environmental factors involved in colorectal cancer. "We understand genes aren't the whole story," said Gruber, an assistant professor of internal medicine in the U-M Medical School and an assistant professor of epidemiology in the U-M School of Public Health. "Some people with a genetic susceptibility develop the disease, while others do not. Understanding the role of diet, physical activity, medications and other lifestyle factors, will help us learn how to modify the risk of developing the disease."

While their results provide new insight into the complex causes of colorectal cancer, Rennert and Gruber stressed that it won't change how the disease is diagnosed or treated, until the results are confirmed by other scientists,

The MECC study is funded by the National Cancer Institute, with additional funding from the Irving Weinstein Foundation.

Research

New Research Analyzes Game of Missile Interception

War is never a game, but one expert has brought game theory to bear on defending against incoming ballistic missile attacks. This theory could help improve the accuracy of the Pentagon's National Missile Defense system, the scaled-down version of the "Star Wars" effort, begun during the Reagan administration.

The idea of using game theory -- a mathematical field -- to help intercept incoming missiles came to Professor Josef Shinar of the Faculty of Aerospace Engineering at the Technion-Israel Institute of Technology as Scud missiles rained down on Israeli targets during the 1991 Gulf War. These missiles disintegrated during reentry and followed unpredictable trajectories, making their interception difficult.

Shinar realized that while existing tactical ballistic missiles (TBMs) such as the Scud are designed to follow a fixed trajectory, it would not require a great technological leap to develop TBMs that can maneuver intentionally.

"To develop such devices involves only a modest technical effort," said Shinar.

By performing evasive maneuvers as they home in on their targets, such ballistic missiles would be considerably more difficult to intercept than their fixed trajectory brethren, and defensive missiles designed to intercept non-maneuvering targets would be virtually useless against them.

In true gamesmanship fashion, Shinar applied the gambit of anticipating the development of maneuverable TBMs, and went about creating what he calls a "guidance law" that considers the worst evasive moves, thereby improving the homing accuracy of future defensive systems.

In doing so, Shinar applied what is known as "zero-sum pursuit-evasion game theory."

"A pursuit-evasion game is an intuitive notion indicating that one of the players of the game, called

the pursuer, is chasing and wants to capture the other, called the evader. It is a game of two players only. Since the gain of one player is the loss of the other, the game is called a zero-sum game," explains Shinar.

"This notion is well suited to an interception scenario, where the pay-off is the probability of destruction of the ballistic missile," he adds. The interceptor missile (pursuer) wants to maximize this pay-off and the TBM (evader) wants to minimize it.

Though Shinar's guidance law was conceived against TBMs (with a range of about 600 to 1,200 miles), there is no theoretical reason why his law could not eventually be applied to longer-range incoming Intercontinental Ballistic Missiles (ICBMs). And while still at the theoretical investigation level, computer simulations of his law have offered "very impressive results." He says the law, could be easily incorporated into any already developed missile defense system.

Sleep Apnea Linked To Decreased Libido

Male patients who suffer from obstructive sleep apnea (OSA) -- the inability to breathe properly during sleep - produce lower levels of testosterone, resulting in decreased libido and sexual activity, according to researchers at the Technion-Israel Institute of Technology. Previous studies had indicated that male sleep apnea patients had reported decreased libidos but the studies were unable to establish a scientific link. The current study, reported in the July issue of *The Journal of Clinical Endocrinology & Metabolism*, found that nearly half the subjects who suffered from severe sleep apnea also secreted abnormally low levels of testosterone throughout the night. "For years we have seen sleep-disorder patients complain of decreased libido but we had no explanation for this phenomenon until now," said Professor Peretz Lavie, head of the Technion Sleep Laboratory and study leader.

The current study adopted a different methodology. Earlier studies had only measured participants' testosterone levels once after awakening. In this study, subjects were admitted to the Technion Sleep Center for an entire night and were fitted with electrodes and catheters. They were monitored between 7 p.m. and 7 a.m. with blood samples collected every 20 minutes. At 10 p.m., lights were turned off and the participants retired to sleep. Two groups -- one of sleep apnea

patients and another of normal controls of similar body weight and age -- were investigated.

The study found that nearly half the sleep apnea patients secreted abnormally low testosterone levels throughout the night.

"Should follow-up studies confirm these findings, then therapeutic intervention of sleep apnea could become a recommended remedy for certain forms of male sexual dysfunction," said Prof. Rephael Luboshitzky, an endocrinologist on the research team. "It is our hope that in the future, by correcting nighttime breathing patterns we will be able to stimulate hormone production and thereby raise libidos."

Magnet Moves from Generic Technologies to Products

The national Magnet program aims at establishing consortiums whose origin is in generic technologies and result in creating products that depend on "during the process" newly developed technologies. The Magnet program is a novel form of funding, with the government providing support toward the development of generic technologies to encourage the medical industrial sector in Israel.

Under the aegis of the Ministry of Trade and Finance operates the Magnet program also aims to encourage research in areas having good industrial potential. One such consortium was organized with its principal focus on the Operating Room. The original idea for the consortium, named Izmel — scalpel in Hebrew — began in the Rambam Medical Center in Haifa. There, surgeons familiar with the limitations and problems in their routine work in the Operating Room, sought to bring surgery and imaging together, in real time and in one space. The aim was to develop new strategies for integrating imaging into surgical procedures so that images are seen in "real time," enabling better control and evaluation as well as providing better guidance to the surgeon.

The Image Guided Surgery Consortium was set up in accordance with the program's stipulations, consisting of a number of clinical centers, academic centers, and, most importantly, Israeli industrial companies — all willing to work together toward a shared objective. The consortium work on a number of projects where any project coming under the consortium's auspices qualifies for inclusion as long as there is both industrial and academic interest plus cooperation and synergism

between the two sectors. This is the main object behind the Magnet program.

The focus is not on finished products but rather on an R&D infrastructure for generic technologies. IZMEL one of the largest Magnet consortia included Sheba and Rambam are the two major clinical medical centers involved. They were joined by Hebrew University, Tel Aviv University, the Technion and ten Israeli companies. making. The naturing IZMEL consortium has received pledges totaling \$40 million over a period of five years.

Human Stem Cell Research Approved

The Israeli national bioethics committee has endorsed legislation that would allow both human embryonic stem cell research and the derivation of ES cells from unwanted embryos created during fertility treatments and subsequent research into therapeutic cloning.

Facts about Israel and Technology

Israel has the world's highest number of scientists per capita: 135:10,000 employees (US 78:10K; Japan 75:10K; Germany 58:10K; Canada 40:10K).

Israel's high tech sector encompasses approximately 3,000 companies.

The revenues of Israel's electronics industry in the late 90's reached \$7.2 billion, with an annual growth rate of 11%.

Productivity per employee in the electronics industry was \$167,000 in the late 90's.

Software exports in the late 90's reached \$1 billion. Israel is one of only six nations that have launched satellites into space.

In the late 90's, Israel was the number one location for US foreign venture capital investment, which reached \$430 million.

Total VC investment in Israel exceeded that in all US states except California, Massachusetts and Texas.

After Canada, Israel has more high tech companies traded on Nasdaq than any other foreign country.

Multinationals with significant operations in Israel include: Applied Materials; Intel; IBM; Digital; Motorola; 3Com; HP; Vishay; National Semiconductors; Cisco; Bay Networks; Nortel; Analog Devices; EDS; Siemens; Cable & Wireless; Microsoft; AOL; Johnson & Johnson.

Grants to US-Israeli partnerships offer cost and risk sharing on R&D projects that end in commercial products (e.g. BIRD Foundation).

Israel has free trade agreements with US and with EU

Given Imaging's Capsule Endoscopy is Shown in Study to Reduce Costs and Improve Patient Quality of Life

Given Imaging, Inc. (Nasdaq: GIVN) recently released the results of a study by investigators in the Office of Health Policy and Clinical Outcomes at Thomas Jefferson University, Philadelphia, in the latest issue of Disease Management (Volume 5, Number 3, 2002) concluded that the M2A capsule endoscope offers a potential net cost savings through earlier diagnosis of obscure intestinal bleeding. This issue was released September 14th, 2002.

In addition to economic benefits, the authors conclude that capsule endoscopy has been shown to have a higher diagnostic yield than other diagnostic modalities for the small intestine. Capsule endoscopy also was found to result in less pain, discomfort and anxiety for the patient. Early diagnosis also averts needless worry, inconvenience and out-of-pocket costs to the patient.

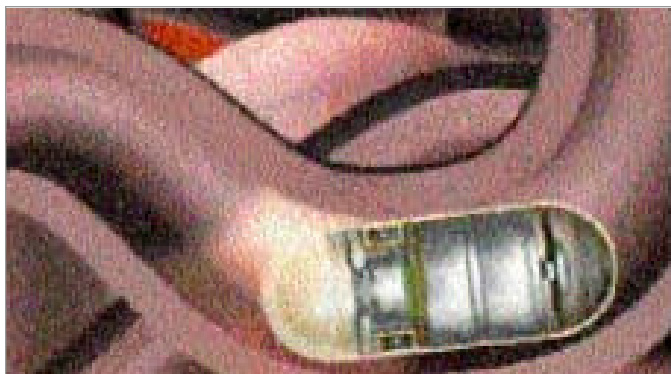
"Capsule endoscopy offers higher diagnostic yield, has the potential to diagnose and treat patients earlier and is more patient friendly than other diagnostic methods," said Neil Goldfarb, Director of Research in the Office of Health Policy, Jefferson, and the study's primary author. "In view of these facts, it is not unreasonable to suggest that capsule endoscopy is more cost-effective than traditional methods of endoscopy to diagnose bleeding of the small intestine."

David B. Nash, M.D., M.B.A., F.A.C.P., Associate Dean and Director of the Office of Health Policy and Clinical Outcomes at Jefferson, added, "This research suggests that capsule endoscopy, when used appropriately, can improve diagnoses of small bowel illnesses, both quantitatively and qualitatively, at no additional cost to the healthcare system."

Over 33 million Americans have health insurance that covers capsule endoscopy procedures.

About Given Imaging

Given Imaging develops, produces and markets the Given Diagnostic System featuring the M2A® Capsule Endoscope, the only non-invasive method for direct visualization of the entire small intestine. The system uses a disposable miniature video camera contained in a capsule which is ingested by the patient. The M2A capsule passes naturally



through the digestive tract, transmitting high quality color images, without interfering with the patient's normal activities.

ProteOptics Obtains Funding

ProteOptics has raised \$1 million through its US based strategic partner Bio-Rad Laboratories, a major Life Sciences equipment provider. ProteOptics is developing a system that helps researchers understand the interaction between proteins and other biomolecules. The financing will enable the company to develop its alpha prototype to be ready by April 2003. ProteOptics aims for the research and pharmaceuticals market.

ProteOptics CEO Dr. Avi Rotem said that there is a need for a comprehensive understanding of protein-protein and protein-drug interactions in the proteomics era. "Although we know the genome sequence today, we don't know how to relate it to physiological status. More data is needed on protein interactions within the cell, or the proteome. ProteOptics has built a system which will help understanding of protein interactions and their importance in physiology and drug discovery."

Using image analysis, the technology simultaneously tracks optical changes at different sites in an image (array) with high sensitivity and without using typical molecular labeling techniques. This allows High Throughput Screening (HTS) and the monitoring of biomolecular interactions.

The company has previously raised about \$800,000 from the BIRD foundation and the Pharmalogica Consortium and is seeking an additional \$4 million to complete its first product and continue development for the drug discovery market.

Physics Ph.D. students Ariel Notcovich, Dan Vilenski and Prof. Stephen Lipson established Proteoptics in

2000 at the Physics Department of the Technion- Israel Institute of Technology. The company's head office is in Haifa, Israel. The company expects its first system to be ready by the end of 2003.

Largest Ever project in the History of Israel's Defense Industry

The biggest project in the history of Israel's defense industry, a \$688 million deal to upgrade Turkish tanks, will start next week.

Israel Military Industries is the lead contractor in the project, which is to upgrade Turkish M-60 tanks.

IMI board chairman Arie Mizrahi said under the agreement signed with the Turkish Defense Ministry in March the deal will take effect on September 29 upon receipt of an advance payment. The five-year upgrading contract will double IMI's order backlog to \$1.4 billion a record high.

Some of the deals involved in the complex upgrade program, which involves several companies in Israel and Turkey, have yet to be signed.

Elbit Wins \$5m Security Fence Order

Defense systems contractor Elbit Systems (Nasdaq: ESLT) announced that it had been selected by Israel's Ministry of Defense to supply a "smart" electronic fence in the Jerusalem area.

The contract, valued at \$5 million in the first phase, will be executed by Elbit Systems' subsidiary Ortek, in cooperation with US-based security company Detektion, and EDIG, an Israeli company. The new fence will be manufactured in Ortek's plant in Sderot.

The first phase of the project will include the construction of an electronic fence and warning system spanning 25 kilometers in the Jerusalem area. The project has the potential to expand into other areas beyond Jerusalem, Elbit Systems says.

Ortek's system is designed to detect any crossing attempts during the day and night and in all weather conditions. The system, based on various detection technologies, transmits a warning to the control center with every incursion attempt. According to Elbit Systems, the fence excels in its low false alarm incidence, is highly reliable and requires simple maintenance.

The detection systems are already operational at Israel's northern and Gaza borders where they have demonstrated a high level of effectiveness in warning and preventing incursion attempts.