

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES

JOSEPH MORGENSTERN, PUBLISHER

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Elul and Tishri

The Hebrew month of Elul, has been allocated a high ranking in the Jewish calendar. It precedes the month of Tishri, when the Jewish High Holiday cycle begins with the celebration of Rosh Hashana, the New Year and culminates with Yom Kippur, the most solemn day in the Jewish calendar ---the Day of Atonement. Many Israelis spend the day in prayer and yet others like myself, though a resident of Tel-Aviv, choose to spend the 24 hour fast, in Jerusalem.

I am aware of how dramatically and deeply the world has changed for my American friends in the past year. It is not difficult to empathize with them. For those of us who live in Israel, our daily routine has been unalterably changed since the beginning of the Palestinian uprising two years ago. The uprising began, after the most generous offer ever made by an Israeli government to settle the Arab-Israeli conflict, was refused by the Palestinian Authority. Twenty four months later, the PA and the various terrorist groups, daily still send murderous gunmen and suicide bombers, bent on murdering civilians in all parts of Israel.

Who can not recall parodying the eternally concerned Yiddische Momma? Among the various bits of advice, nowadays, she is likely, to tell her son: "Israel is not a safe place for a nice Jewish boy to visit".

The US State Department is also extending similar advice in the form of travel warnings. In an unprecedented response, the nice Jewish boys and youth from various parts of the globe are not heeding that advice.

Justin, a 16 year old from Sidney, is here. He is delighted to be participating in an overseas students summer program at the Haifa based Technion, Israel's Institute of Technology. Justin never thought of cutting short his stay after the murderous attack on students at the Hebrew University campus on Mt. Scopus, in Jerusalem. Of the

nine students slaughtered, five were American. An explosion, caused by a bomb planted in the Frank Sinatra Cafeteria took their lives.

This past week, close to 70 students arrived at Ben-Gurion University of the Negev to participate in the International Summer University program. Though the majority of students are from Germany and the United States, there are participants from Trinidad, India, Nepal, Sweden, France and Switzerland.

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Our source at the university reports that despite the situation in Israel, many students have decided to continue with their plans to study in Beer-Sheva. While there has been a noticeable decline in enrollment in the general Overseas Student Program over the past two years, only one student dropped out of the BGU program after the attack on Hebrew University in Jerusalem. A new student registered on the same day and it left the overall number unaffected.

On a different level, most foreign investors and businessmen, are staying away in droves.

However, though not reported in the local press, the CEO of a leading American medical systems company recently signed an OEM deal which includes an equity investment, in addition to millions of dollars of orders for the Israeli company. Prior to the signing, he visited the Israeli company to meet the management and view its unique "miniature medical camera systems".

As Elul has arrived and Tishri is nearly here, I expect that in the New Year I, and the rest of Israel will experience fears of terror inflicted upon us by Islamic Weapons of Mass Destruction. That scenario, is most likely, after America moves to depose Saddam Hussein. Israel has been publicly threatened by the autocratic despot from Bagdad, to become the target of "dirty missiles".

Allaying my fears, are the expressions of solidarity of foreign students, coming to Israel to study. Also, contrary to the generally held views, American executives attracted by unique Israeli technology continue to travel here and enter into what the trade describes as "win-win" deals.

*From the Members of our Staff and the Technology Review Board we wish all of our friends in Israel and overseas, a Very Happy and Prosperous New Year, a year when the greeting "Shalom" which in Hebrew means "Peace" will acquire new meaning for every one.
Joseph Morgenstern*

Caesarea Economic Report

Israel's economy has reached its severest crisis since the early stages of its history according to the findings and keynote presentations at the Tenth Annual Caesarea Economic Conference, held this year in Jerusalem. Speaker after speaker, including

academics from the Israel Democracy Institute, the sponsor of the conference, as well as industrialists, all morosely pointed out that the economy was moving into uncharted murky waters. Worse, they openly stated that they saw no way out of the current morass.

The eternally optimistic natured Eli Hurwitz, chairman of Teva Pharmaceuticals, with annual sales well over \$1.0 billion said "that the economy can not continue in its current direction". It could be pointed out that



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many of those present were harboring memories of happier days of the 1990s, when the country's economy was booming. Led by record setting high tech exports and supported by booming activity in the communications and information technology sectors, investment capital was streaming in and in 2000 alone, \$3.2 billion was invested behind the country's high-tech companies. A leading Israel venture capital company has predicted that the total for 2002 will not exceed \$400 million.

The dismal performance of the economy, is clearly visible even after adjusting for effects of the global downturn in the American economy, and the implosion of the dot.com stock market. It is reeling from the ongoing aftershocks of the Intifada, which has savaged its tourist industry, decimated new investments and has brought the economy to a veritable standstill. Minister of Finance Silvan Shalom predicted "negative growth" in the current year. However, many of those present, were startled on hearing the Minister vow that he is seeking severe cuts in the 2003 budget and defense spending as his first target. In contrast Defense Minister Eleazar Ben-Eliezar stated that the defense of the country is a "first priority" and whatever is needed for providing security for the nation, the Security Fence being one example, will have to be found.

Biotechnology Corner

Biochip Collaboration Between Schott and Glycominds Awarded BIRD Grant

Glycominds Ltd., an Israeli biotech company, and the multi-national Schott Glass Technologies Inc. announced that they have been awarded a grant of \$1 million from the Israel-U.S. Binational Industrial Research and Development (BIRD) Foundation. The grant will support a new collaboration, aimed at developing one of the world's most advanced biochips.

The collaboration will initially focus, on the development, of high-throughput biochip technology for analysis of essential biological interactions mediated by glycans. Some of the main diseases where glycans play an important role, include autoimmune, inflammation and bacterial diseases. The biochip market is among the fastest growing areas in life science technologies, most notably

drug discovery research. In recent years, DNA biochips have established a strong market presence, and protein chips have also increasingly penetrated the industry.

While a growing market for glycan biochips has emerged, several technological obstacles have impeded their development. Glycominds' innovative glycan micro-array technology and Schott's extensive experience in glass surface chemistry and coating technologies, puts these collaborating partners in a strong position to overcome the challenges associated with high-density and high-fidelity glycan biochips.

Schott Glass Technologies based in Duryea, Pennsylvania, is a wholly owned subsidiary of the Schott Group (Germany), one of the world's leading glass manufacturers.

Glycominds, based in Lod, Israel, brings to the project considerable technological capabilities in carbohydrate micro-arrays. Building on post-genomic research, Glycominds is an innovative biotechnology company pioneering new "glycomics" technologies for identification, and analysis of protein interactions as mediated by glycans.

Quark Biotech Buys Incyte Division

Israeli start-up Quark Biotech (QBI) has bought Incyte Genomics' (Nasdaq:INCY) microarray division. The size of the deal was not disclosed. QBI is controlled by Oracle chairman Lawrence (Larry) Ellison.

The acquisition includes Incyte's production lines and key personnel. Incyte's microarray division has 120 employees. QBI declined to say how many would stay, but several dozen will probably be retained.

QBI was Incyte's largest customer and, when Incyte decided to get out of the business, QBI decided to buy it. QBI reportedly has spent several millions dollars on microarrays to date.

QBI originally bought microarrays from a small private company, Synteni that was founded in 1994 and acquired by Incyte in 1997 for \$2.2 million in shares. Incyte also inherited QBI as a customer.

The acquisition, ought to enable QBI, to scan entire chemical libraries. to find those that generate particular reactions and suppress disease-causing faulty genetic actions. QBI's business is applied genomics-based drug discovery and development.

Research on Bone Marrow Transplants

Weizmann Institute scientists, have uncovered a mechanism, that enables stem cells to exit the bone marrow, into the blood circulation of healthy donors as well as patients suffering from leukemia, other malignancies and blood disorders. First published in the July 2002 issue of Nature Immunology, the findings may lead to more efficient clinical stem cell transplantations.

Bone marrow transplantation is a last-resort treatment, that saves the lives of many patients with cancer and inherited blood disorders. In a transplantation, the patient's malignant or defective stem cells in the marrow are destroyed, and healthy stem cells are transfused intravenously into the circulation. To obtain the healthy stem cells - either from a healthy donor or from the patient himself before or during treatment with chemotherapy - these cells must be "encouraged" to come out of the marrow into the bloodstream. Thus, scientists have been trying to uncover what triggers stem cell mobilization. Dr. Zvi Lapidot of the Immunology Department, found that the degradation of SDF-1, a key protein in the bone marrow, is crucial for stem cell mobilization. SDF-1 had previously been found by this and other research teams worldwide, to anchor stem cells inside the marrow by activating adhesion molecules (molecules that serve as "glue"). Uncovered now, is the "anchors aweigh" mechanism that frees stem cells into the blood. The result: stem cells attached to the marrow lose their "anchors" and flow into the bloodstream. Stem cells produced during SDF-1 degradation, will not be able to cast anchor to begin with, and will also exit the marrow. The scientists found that stem cell mobilization peaked when SDF-1 levels in the bone marrow were at their lowest. The findings may lead to improved collection of stem cells for clinical transplantations.

In January 2001 we were able to report that: " Israeli startups raised more than \$3.2 billion from venture capital funds in 2000 - three times the amount invested in 1999. In the last quarter of 2000 Israeli startups will have raised more than \$800 million. The figure was reached notwithstanding the sharp drop in Nasdaq, the drought in the Initial Public Offerings market and the security situation in the country. It also represents a decrease of less than 20 percent from the preceding quarter, when investments in Israeli startups exceeded \$1 billion.

The increase in investments stemmed from the rise in

the amount raised by Israeli venture capital funds themselves. These were estimated to have raised some \$2.5 billion in 2000, compared to \$1.6 billion in 1999. Over the last decade, Israeli venture capital funds have raised a total of \$6.5 billion, some \$3 billion of which is still available for new investments." Certainly the figures could still be seen as being part of the the Seven Fat Years.

At the time, Zeev Holtzman, Giza chairman, estimated that since follow-up investments represented nearly half of the total amount managed by the funds, \$1.5 billion was available for first-time investments in new startups.



In the middle of July 2002 the accounting and consulting firm Kesselman & Kesselman PricewaterhouseCoopers, announced the findings of its Money Tree Survey. The startlingly bad news was that only \$ 217 million

was invested in Israeli high-tech companies in Q2. In the preceding quarter, Q1 2002, \$ 344 million was invested. According to presenter Joseph Fellus, a partner in the accounting practice, in the first half of 2002, high-tech companies raised an aggregate of \$ 561 million, a decrease of 37% as compared to the corresponding period in the previous year and 60% down compared to the first half of 2000. One of the individuals present was the chief financial officer of a venture capital fund. "It will be another four years when we can expect to cash out of our investments by means off public offerings". he opined. If his prediction is correct that means that 2006 would mark the end of the Seven Lean Years.

If that is not enough to worry, then one can consider the sorry plight of start ups and their dwindling prospects for obtaining seed funding. Only 40 startups were launched between January and June, compared with 160 in the whole year 2001, according to Dolev & Abramovitch Hi-tech Information. In the same period of time 70 venture-backed startups collapsed, compared with 292 in all of 2001.

More on Israeli Venture Capital and Private Equity Industry

Investing in venture capital funds was not a major capital market priority in the United States in H1 2002 as the industry adjusted itself to supporting its portfolio investment companies and in general delayed committing funds to new investments. Yet in the

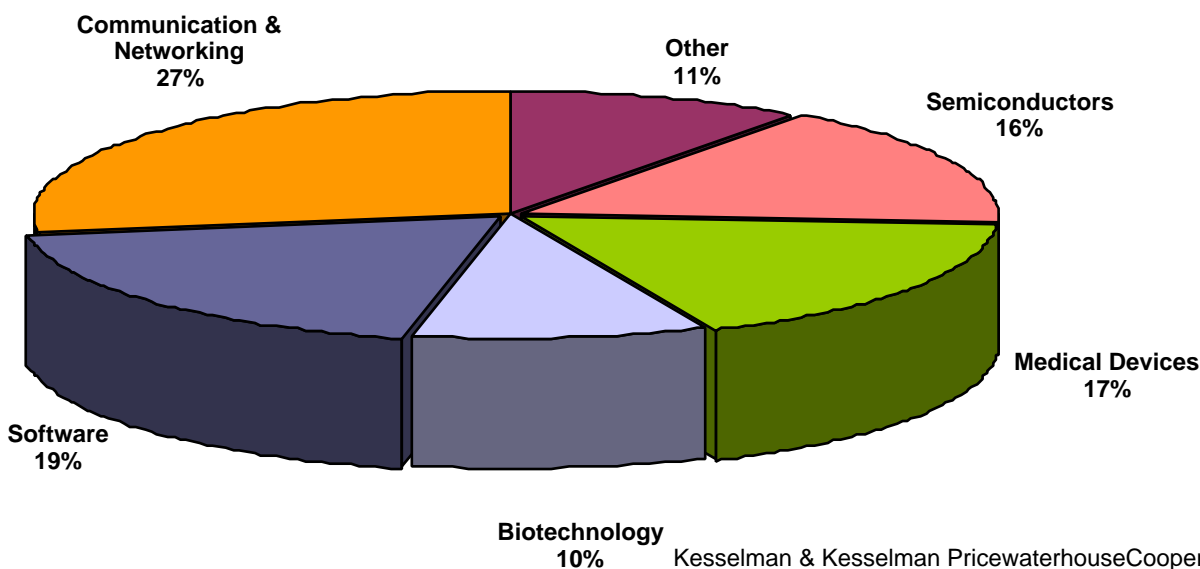
second quarter a total of \$4.6 billion was raised, \$2.5 billion of it by E.M. Warburg Pincus & Co. Clearly, the dramatic slowing in the pace of investment is related to a drop in the valuation of companies. The underlying concern for the venture capital companies is the level of valuations that they will ultimately attain when they take their portfolio companies public.

The process of returning money to investors also continued with \$3.0 billion as the generally accepted industry figure for Q2 2002. Charles River

Joint BRM Capital CEOs Nir Barkat and Menashe Ezra were quoted as saying "that the change did not come about through pressure from investors. Only three of the 48 investors in the fund approached us with a request to reduce the size of the fund and we received the blessing of our investors and clients who said that they appreciate the move and will take it into consideration when whenever raise our next fund".

So far, BRM has invested \$60 million in eight

Venture Capital Investments by Industry Q2-2002
(\$ Millions)



Kesselman & Kesselman PricewaterhouseCoopers

Ventures of Menlo Park, Calif., led the list of downsizing funds by returning \$750 million to its limited partners. For the year 2002, American venture capital companies are expected to obtain between \$100 billion and \$120 billion in venture commitments, down from \$200 billion raised in 2001 and \$249 billion in 2000. 2004 is the earliest time when resumption in capital raising is expected. Israeli BRM Capital LP. early in July, became the first Israeli venture fund to announce that it was reducing the size of its fund from \$253 million to \$150 million. BRM Capital is a seed- and expansion-stage venture capital firm that invests funds primarily in Israel-related infrastructure companies in the communications and software domains.

companies. \$90 million remain in the fund, sufficient, according to Barkat and Ezra, to invest in eight more companies.

Venture capital funds that have raised substantial sums of money and remain uninvested, are have the dilemma of facing up to growing investor dissatisfaction since the management firms continue to collect hefty management fees on these funds.

Venture capital firms are not alone in experiencing hard times as investment bank Roberston Stephens responsible for raising several billions of dollars for Israeli high-tech firms has closed its Tel-Aviv office. The San Francisco-based investment bank, which

specializes in underwriting technology offerings, began operating independently in Israel about four years ago. Prior to that it had joint ventured in this country with the Evergreen Group. The RS annual conferences were the best of their breed as more than 100 companies were presented in the span of two days, to investors from all over the world. FleetBoston wound up owning RS after buying the Bank of Boston, which had bought Robertson Stephens in 1998 for \$800 million. Robertson Stephens led more than 30 issues by Israeli companies on Wall Street including CheckPoint, Amdocs, Tower Semiconductor, Zoran, AudioCodes, Optibase, Galileo Technology and in the past two years Verint Systems, Verisity and Given Imaging, the first Wall Street IPO after the September 11 attack on NYC.

Robertson Stephens, once a highly profitable investment bank, has seen its revenues sink by 71% in 2001, for which it posted a loss of \$61 million, compared with netting \$216 million in 2000. FleetBoston cut the bank's staff by 39% to 950 and subsequently decided on its closure.

We understand that Andrew Kaye General Manager of the Israeli unit, should a management buyout succeed in the US, will try to maintain the local operations as a representative office.

Another harbinger of things to come was the announcement, in early July, of the merger of two Israeli venture capital companies.

Neurone Venture Capital and Platinum Venture Capital signed an agreement in principle to merge. The new entity will be called Neurone-Platinum Ventures. This marks the first merger in Israel's venture capital industry, which is expected to undergo massive consolidation and relocation overseas in the coming years.

Under the agreement, Neurone and Platinum will manage their portfolios independently. Each will allocate \$30 million from their latest funds to establish the first joint \$60 million fund. Neurone-Platinum Ventures will be managed by Neurone Ventures managing partners Amiram Dotan and Yigal Livne, together with Platinum Venture Capital managing partner Yehoshua (Shuki) Gleitman.

IDF Seeks to Raise Private R&D Funds

A Hebrew daily has reported that the Israel Defense Forces (IDF) ready to offer private investors

participation in military Research & Development. In return, the investors would be allowed to produce and market these items for commercial applications. Moreover, the IDF has been in contact with two venture capital funds that have expressed interest in investing in military R&D. Defense establishment legal advisors have approved the idea, which now requires Ministry of Defense approval.

UPDATES

MEGA-DEAL FOR PEPTOR Aventis Boosts Diabetes Drug

Drugmaker Aventis (Paris:AVEP.PA) boosted its position in the diabetes market by signing an agreement with Peptor Ltd. giving it exclusive rights to the private Israeli firm's new diabetes drug.

Aventis will be responsible for further clinical development of the drug, named DiaPep277, and its commercialization. DiaPep277 will add to Aventis's portfolio of diabetes medications which include its already-marketed Lantus, as well as Exubera and the drug 1964, which are all still under development.

Peptor's president and CEO Dr. Yoram Carmon, said that Aventis will be financing the drug's clinical development up to its commercial launch. Meanwhile, milestone-bound payments from the Swiss-based multinational, will help Peptor set up manufacturing facilities in Israel over the coming three years.

The agreement further stipulates that Peptor will remain the sole manufacturer of the drug for Aventis, which will have the exclusive right to sell and distribute it.

Peptor has conducted Phase II studies for type 1 diabetes in Europe and Israel and recently started Phase II studies for latent autoimmune diabetes in adults (LADA) the United States and Europe.

Type 1 diabetes is a condition in which the immune system attacks and destroys the beta cells in the pancreas which produce insulin, a hormone that controls blood sugar levels. It typically is found in childhood and generally is considered as rare.

LADA is a slowly progressing form of type 1 diabetes and is much more common. It is characterized by the similar immune based destruction of insulin-producing cells in the pancreas, which eventually leaves the patient insulin-dependent for life.

Lehman Brothers said DiaPep277 could be useful in

around 10 percent of the diabetes population and was a positive addition to the Aventis diabetes franchise.

Under the deal, Peptor will be responsible for scaling up production of the product and will receive milestone payments as the drug advances through development. The companies declined to disclose financial details of the deal. However it is rumored that Peptor will be receiving an initial payment of \$15 million.

The agreement marks another step by Aventis, the world's fifth biggest pharmaceutical firm, to boost its new drug pipeline, which analysts consider lightweight with no obvious big winners.

Peptor, which Carmon established in 1993, has raised \$65 million since its establishment. In its last financing round, in November 1999, it secured \$15 million according to a post-money company value of \$70 million. Its shareholders include Johnson and Johnson (NYSE:JNJ) and Teva Pharmaceuticals (Nasdaq:TEVA). Peptor employs 50 people at facilities in Rehovot, Israel and in Erkrath, Germany.

Retalix Announces Record Results

At the end of July Retail (Nasdaq:RTLX) announced record revenues of \$17.3 million, a 19% increase over Q2, 2001 and an operating income of \$1.7 million, up 242% over Q2 2001.

The net income for the quarter was \$1.4 million, or \$0.11 per diluted share, compared to a net income of \$0.85 million, or \$0.07 per diluted share, in the in the second quarter of 2001.

"Looking ahead to the rest of the year, we expect to report annual revenues in excess of \$70 million and an annual operational profit of over \$5 million, even as we continue to invest in developing our web based applications and to further build out our online communities. We do not expect our net income for 2002 to be negatively affected by our new venture with Fujitsu," concluded Shaked. "The financial position of Retail remains strong and our balance sheet reflects \$26.2 million in liquid financial resources, in addition to shareholders' equity of approximately \$53 million. Our cash flows from operations also shows strength at \$2.1 million for the second quarter."

About Retalix Ltd.

Retalix Ltd., an Israeli company with North American headquarters in Plano, Texas, provides integrated enterprise wide software solutions for the retail food industry worldwide, including supermarkets,

convenience stores and restaurants. It offers a full suite of software applications. that support a food retailer's essential retailing operations and enable them to increase their operating efficiencies while improving customer acquisition, retention and profitability. Recently it expanded its product line by offering its head and back office applications via the Internet to small chains and single store food retailers. The company has installations in more than 20,000 stores and quick service restaurants across 44 countries.

Pharmos to Start Clinical Trial of Dexanabinol in Heart Surgery Patients

Pharmos Corporation (Nasdaq: PARS and Nasdaq Europe: PHRM) announced it has received approval from Israel's Ministry of Health to test dexanabinol clinically as a preventive agent against the mild cognitive impairment (MCI) that can follow coronary surgery in cardiopulmonary bypass (CSCP). Patient enrollment in a Phase II study will commence upon the completion of various preparations. No approved medication is currently available to prevent the onset of MCI after CSCP, which is among the most common major operations performed in the world.

"The commencement of this study is an important strategic move that broadens our pipeline," said Haim Aviv, Pharmos Chairman. "The potential market is large and currently void of any product. At the same time, the large, relatively homogeneous patient population and elective nature of the relevant surgery make the trial fairly uncomplicated."

Cognitive decline may develop following cardiac surgery as a result of microemboli triggered ischemic events and related inflammatory processes. Pharmos' rationale in going forward with the clinical study is in the convergence of the etiology of the indication with the mechanisms of action of dexanabinol as a neuroprotectant. As an important secondary outcome of the company's Phase II traumatic brain injury (TBI) trial, completed in 2000, patients treated with dexanabinol showed statistically significant improvement in cognition and orientation as measured by the Galveston Orientation and Amnesia Test (GOAT) at one, three and six months. The improved outcome of these patients as measured by GOAT provides clinical evidence of dexanabinol's therapeutic potential in preventing MCI. In preclinical findings, dexanabinol was an effective neuroprotectant in animal models.

RED-C Amplifiers Chosen by a Global Systems Vendor

In our June 2002 IHTIR issue we featured RED-C as a company "that perceived a substantial business opportunity for creating a superior amplifier for telephone network operators employing optical fibers. While visiting the RED-C development facility we learned that initial sales have already been made, yet in the normal course of events, months of testing are required to gain approval, before substantial orders can be anticipated.

"Once our innovative line of dynamic EDFA is commercially deployed, we expect to play a significant role in the global optical amplifier market. Our forecast is for annual sales to exceed the \$50 million mark by 2005," projected Yossi Boker. RED-C's COO. At the end of July the executive reported that "we had one receipt of an initial order from one of the main global system vendors. We have just shipped it a short while ago. However, pursuant with the NonDisclosure Agreement signed with this customer we can't publicize this relationship, even though we are very keen to do so".

IBM has Cooperation Agreements with 19 Technology Firms

IBM (NYSE:IBM) recently signed cooperation agreements with 19 Israeli technology companies and start-ups. The agreements aim to assist the marketing of the companies' products and solutions overseas, present them to IBM's customers worldwide and integrate them in IBM's solutions.

Sources said IBM is not ruling out additional investments in technology companies this year. Israeli companies with IBM cooperation agreements include Retalix (Nasdaq: RTLX), Satsmart.tv, Regisoft, SintecMedia, and Cash-U Mobile Technologies.

The agreements were signed through IBM's Global Technology Unit (GTU), which has been active in Israel for several months. GTU finds start-ups operating in technology fields synergetic with IBM's activities.

Magal to Protect a Major Correctional Facility in Southeast Asia

Security Systems, Ltd. (NASDAQ:MAGS), announced that it has received an order to instal its

Perimeter Intrusion Detection System designed to protect a major prison in Southeast Asia. The company disclosed incomplete details of the transaction.

This \$850,000 order will be completed this year. Magal will provide its perimeter fencing, combined with taut wire intrusion detection systems, CCTV Cameras and Video Motion Detection Systems. About Magal Security Systems, Ltd.:

Magal Security Systems Ltd. (Magal) is engaged in the development, manufacturing and marketing of computerized security systems, which automatically detect, locate and identify the nature of unauthorized intrusions.

Magal trades in the U.S. on the NASDAQ National Market since 1993 and in Israel on the Tel Aviv Stock Exchange (TASE) since July 2001, at both under the symbol MAGS. Revenues for fiscal year 2001 were US\$41 million, with net income of US\$3.2 million.

Rafael Sells Anti-Tank Missiles to Poland in \$250m Deal

AP reports that the Polish Defense Ministry will purchase "several thousand" anti-tank missiles from Israeli maker Rafael in its effort to bring its armed forces up to NATO standards.

The deal for the Rafael NT-S "Spike" missiles is worth up to 1 billion zlotys (\$250 million) spread over 10 years. .

Mr. Zemke said the ministry had considered bids from companies in South Africa, France and Sweden but that the Israeli missiles were the "most effective, although not the cheapest."

The contract is to be signed by Rafael with Polish arms firm Mesko, which will manufacture some of the missiles, after final tests are completed later this year. Poland will receive the first missiles from Israel in 2003 and production at home should begin in 2004, Zemke said.

The Spike missiles have a range of about 4 kilometers (2.5 miles) and can be used by infantry troops or fired by helicopter aircrew. They will replace Soviet-era missiles still in use by the Polish military.

Mindset Signs Alzheimer Vaccine Pact with New York University

Israeli start-up Mindset BioPharmaceuticals and New York University School of Medicine (NYUSM) announced today that they had signed an agreement, under which Mindset would become the worldwide exclusive licensee of a patented vaccine technology for the treatment of Alzheimer's disease.

The vaccine has been demonstrated in animal models to inhibit the deposition of toxic amyloid fibrils that lead to Alzheimer's disease, Mindset said. The company holds several pending patent applications dating back from 1997, which claim the new concept of using antibodies directed against the Alzheimer's toxin for the prevention and treatment of Alzheimer's disease.

Amyrex, the vaccine being developed by Mindset in collaboration with scientists at New York University, is based on a non-toxic and synthetic homologue of human Alzheimer's amyloid toxin. Mindset says its therapeutic approaches are aimed at modifying the course of the disease, whereas existing therapies are essentially symptomatic, without affecting disease progression.

Mindset, a privately held company, is backed by MPM Capital and Clal Biotechnology Industries.

NYU Professor of Pathology Dr. Blas Frangione said, it is widely believed that brain amyloid deposition is intimately related to neurodegeneration, which leads to dementia. Hence, preventing amyloidogenesis can arrest or delay Alzheimer's disease. Our goal with the Alzheimer's vaccine is to challenge the native immune system to undertake its natural defensive and protective role against abnormal protein folding using a safe highly immunogenic synthetic antigen."

Mindset BioPharmaceuticals president and CEO Dr. Daniel Chain said, "The cutting-edge technology we have licensed from NYUSM strengthens our leadership position in developing immuno-based therapeutics for the treatment of Alzheimer's disease. Amyrex fits well with Mindset's existing intellectual property portfolio and activities in this area."

Mindset chairman Dr. Michael Schickler said, "Mindset has been a pioneer in this field while maintaining a strong emphasis on safety issues. Patient safety has been our principal focus both in developing passive immunization strategies based on uniquely engineered antibodies and for the vaccine approach, which ultimately depends on producing a safe immune response in patients".

Alzheimer's disease is a neurodegenerative disorder

affecting about 8 million Europeans and Americans. The number rises dramatically with the increasing elderly population. Until now, no cure or disease-modifying therapy has been developed for the disease.

Garbage to Light up Ben Gurion Airport

A joint team of the Dan Region Association of Towns (Sanitation and Solid Waste Disposal), Israel Airports Authority and Ben Gurion 2000 administration is studying a proposal to use methane from the Hiriya garbage dump to illuminate Ben Gurion International Airport.

Under the plan, the gas would be transported through an underground pipeline to the airport as soon as mid-2003.

The Dan Region Association of Towns has meanwhile published a tender for 35 drillings in the dump and for laying a pipeline. The pipeline would be connected to electricity generators or utilized for other purposes.

A study by SCS - Wetherill Environmental of the US for the Dan Region Association of Towns found enough methane in the Hiriya dump to illuminate Tel Aviv neighborhoods for 25 years.

DenX First to List on Australian SE

Jerusalem - based start - up DenX announced it has been sold to Australian Stock Exchange shell company Helm Corporation Ltd (ASX:HCL) in a reverse merger at a company value of \$17.5 million, before money. DenX develops computerized dental training and implant systems.

DenX shareholders will receive Helm shares. Investors include Vitalife Life Sciences Fund, Israel Seed Partners, Gaon Holdings subsidiary Alon Technologies Venture Fund, Union Bank of Israel subsidiary Union Capital Markets, Lumenis (Nasdaq :LUME) and Teva (Nasdaq:TEVA). DenX employees will also benefit, receiving options worth \$3 million, amounting to tens of thousands of dollars each. The deal is expected to be completed in November, after which DenX will be listed on the ASX in Melbourne.

Helm already owned 11% of DenX through its investment company Bex Investment. The

Australians have now signed an agreement to buy the stakes of all of DenX's other shareholders, issuing shares of the merged company in exchange. The company value after the merger is estimated at \$35 million, of which \$8 million is being injected in cash into the merged company.

\$1.6 million will come from capital raising on the ASX, planned for late August. The remaining \$6.6 million will be injected directly by Helm and its subsidiaries. DenX plans to use the money to continue its sales and marketing operations worldwide.

DenX has two main products for dentists. Both are based on patented proprietary computerized monitoring and 3D imaging of dental drills in the patients' mouths. In the next stage, DenX plans to apply its technology for other surgical uses, including orthopedics and neurosurgery .

The company's first product, DentSim dental training simulator for students, has already been purchased by dental schools in Israel and worldwide since the company's founding in 1994.

DenX believes that the market for its IGI computerized dental surgery system is worth hundreds of millions of dollars, and it will be the company's main growth engine in future years .

DenX has 65 employees, including 50 at its headquarters in Moshav Ora outside of Jerusalem, and the rest in subsidiaries worldwide. It was founded eight years ago by president Alon Hayka, Liat Eitan and chief scientist Joshua Lustmann of Hadassah Hospital Ein Kerem .

Hayka believes the capital injection from the merger will allow DenX to grow rapidly through large marketing investments in the US, Europe and Far East. In the first seven months of 2002, DenX sold \$2.8 million worth of imaging systems.

Galil Medical System Allows Kidney Tumor Treatment Non-Invasively

Physicians at the University of Virginia Medical Center (UVA) treated a renal cell carcinoma in the remaining left kidney of a 64 year-old man, with the Galil Medical SeedNet Gold system without making an incision. The minimally invasive, first ever procedure of its kind, used cryotherapy, took less than 55 minutes, and the patient had no complications.

Urologist Dan Theodorescu, MD, PhD, and radiologist Matthew Bassignani, MD, froze the tumor with ultra-thin CryoNeedles inserted directly through the skin, using SeedNet Gold advanced cryotherapy technology. UVA radiologists used real-time ultrasound to guide the CryoNeedles to their target, and a state-of-the-art template aligned and held them in place through two freeze/thaw cycles, completely ablating the tumor.

In cryosurgery, tumors or wayward cells are frozen to death by strategically placed probes. The procedure has gained particular acceptance as a treatment for prostate cancer. But the new ultra-thin CryoNeedles enable the technology to go where conventional probes (those two millimeters and larger in diameter) cannot be used.

"These small CryoNeedles make this type of surgery possible," said Dr. Theodorescu, Paul Mellon professor of urology in UVA's department of urology. "Large conventional probes would be difficult to insert percutaneously, to direct them into the kidney, as well as to control them during the freezing process."

The ultra-thin needles serve another important role with regard to the totality of the freeze, according to Galil President and CEO James McGlone. He likens the freeze area to a can filled with marbles instead of sand. "You can imagine how the can filled with marbles would leave pockets of unfrozen areas, as opposed to sand-filled can. But the risk of losing the remaining kidney during the partial nephrectomy, and the otherwise-healthy patient's strong desire to avoid additional surgery, led to this innovative procedure. The ultra-thin needles create smaller ice balls that can fill more of the space, so they provide a wonderful technological advantage -- for both kidney and prostate cancer ablation," he said.

Patients who undergo this procedure can leave the hospital the same day and expect a few-day recuperation period, versus those whose tumors are removed laparoscopically (one to two days in hospital and about two weeks at home) or through open surgery (one week in hospital and six weeks at home).

"Our SeedNet Gold and CyroNeedle technology performed exactly as we expected," said Yan Moore, MD, medical director at Galil. "This could mark a new frontier for cryosurgery--one that will improve quality of life for patients and reduce healthcare costs to the system", he added.

Dr. Theodorescu says patient selection is the key to

success. He already has scheduled several others for this procedure who have tumors less than three centimeters in size sited in an anatomical position to be viewed clearly by ultrasound.

Israel Space Agency Aims High on Low Budget

Operating on a meagre budget, during a costly war and an economic crisis, the Israel Space Agency (ISA) is about to take a giant leap forward by sending its first astronaut into space.

The ISA will be in the spotlight when Colonel Ilan Ramon takes off with the next NASA shuttle mission, probably in September. ISA has been quietly working for years on state-of-the-art space technology.

"We try to do a lot of things without much money. Sometimes I'm surprised how much is achieved", said the ISA's director general Aby Har-Even, who runs Israel's civilian space program.

Annual budgets of around 50 million dollars have been cut further as the Israeli government puts priority on waging its war against Palestinian militants and tackling a growing economic crisis, he said.

Israel launched its first satellite 14 years ago. ISA said it makes the most of limited funds by building on Israeli strengths in niche technologies.

It claims success in developing hardware such as small satellites and satellite-based equipment like remote sensing, global positioning systems (GPS) as well as propulsion engines.

The space program benefits from cooperation with national space agencies in the United States, France, Germany, the Ukraine and Russia. ISA also works with various experts at Tel Aviv and other universities. Its proposals to undertake projects with Egypt, with which Israel has a peace treaty, have been shelved.

ISA hopes some of its projects like space cameras and electric boosters designed to change satellite orbits will sell commercially, Har-Even said by telephone from his offices at the Ministry of Science, Culture and Sport in Tel Aviv.

When Col. Ramon travels on the Space Shuttle Columbia, now scheduled for this month, he will work with a camera to help analyze dust storms over the Middle East and their links to global warming, Har-Even said.

"If the result is good, (the camera) might be put on the space station," where it would be able to measure dust particles over a longer period of time than that of the 16-day shuttle mission, he said.

Though the camera Ramon will take with him on the space shuttle is for scientific purposes, the ISA is helping to develop another camera dedicated for commercial satellites, Har-Even said.

Among other projects ISA is working on with its various partners:

- *GPS applications for the study of the movement of tectonic plates in a region vulnerable to earthquakes

- *Miniaturizing satellites which will allow more payload for rockets sending them into space

- *Studies on how satellites weather physical space hazards linked to radiation, vacuum, magnetic "storms," and dramatically shifting temperatures.

- *Telescopes to join a network run by NASA and Britain using earthbound telescopes to track new asteroids that may threaten the Earth

- *Remote sensing for agriculture, forestry and fishing

Israel entered the space age in 1988 by launching its first OFEQ satellite from a Shavit launcher.

Saudi Arabia Bans 200 Firms for Israel Boycott Infractions

The Washington Post has reported that more than \$150 million worth of Israeli produced goods, were shipped under forged papers into Saudi Arabia. As a result the oil rich kingdom, over the past 10 months has blacklisted some 200 foreign companies,

A Saudi Chamber of Commerce official implicated Jordanian and Cypriot companies as shippers of the Israeli goods under forged certificates of origin.

The list of companies - include 72 from Jordan, 70 from Cyprus, 23 from Egypt and 11 from Turkey - and these will be barred from trading in Saudi again.

Other banned companies come from the US, Britain, Singapore, Thailand, Portugal and Poland. The names of the banned companies were not announced.

About \$300 million worth of Israeli goods were exported to the Gulf countries during the last 10 months, according to the Saudi report, with about half that amount entering Saudi Arabia.

Saudi Arabia boycotts Israeli companies in accordance with the Arab League boycott office established in 1951 to track down foreigners who do business with or support Israel, and then ban them from operating in the Arab world.

But the boycott, which once listed more than 8,500

companies and people from Coca-Cola to the Ford Motor Co. and Elizabeth Taylor's movies, has not been active for almost a decade. Egypt and Jordan have also made peace with Israel and the stop-start Israeli-Palestinian peace process has been embarked upon. Recently, however, boycott calls have risen because of the ongoing Palestinian-Israeli violence.

Israel Builds Anti-Missile Unit to Avert Iraqi Attack

Israel is building a second state-of-the-art anti-missile battery in the center of the country to fend off Iraqi attacks in the event of a U.S. assault on Baghdad, Israeli military sources said today.

The Arrow-2 system, developed by Israel in conjunction with the United States, has been deployed for three years in the southern Negev desert, the sources said.

The Israeli army said a new battery about six miles from the central town of Hadera was "for training purposes," but the sources said it already had operational capability.

A possible U.S. attack on Iraq and defiant public statements by Iraq's leader, Saddam Hussein, have heightened Israeli concerns over a repeat of the 1991 Persian Gulf War, when Iraq fired Scud missiles at the Jewish state.

U.S.-made Patriot missiles intercepted some of the Scuds in 1991, but at least 30 got through and one person was killed.

Spinal Scans Without Radiation

Medical device company OrthoScan is currently raising \$3 million. OrthoScan co-founder and director Gideon Sturlesi was quoted in a Hebrew language business daily: "We've only organized the financing round in the past month or two, and we're surprised that it's gone fairly quickly." Investment negotiations are taking place with overseas venture capital funds and strategic investors, since Mr. Sturlesi says the capital is needed mainly for marketing in Europe.

OrthoScan previously raised \$2 million in two rounds from Biomedical Invasions, a European investment concern, and private Israeli investors.

OrthoScan develops a fingertip sensor that produces a 3D image of the spinal column when coming in contact with the patient. The technology is designed to diagnose and monitor scoliosis (curvature of the spine) in children, without the use of X-rays, which expose the child to radiation.

The system received US Food and Drug Administration (FDA) and European CE approval several months ago. 20 units have already been sold to hospitals, clinics, and imaging institutes in Europe. Sturlesi did not disclose the price of a single machine, but he said, "It's much cheaper than an X-ray machine." The company also said it was negotiating to market the system to the large health funds in Israel.

OrthoScan was founded two years ago by orthopedist Dr. Joseph Leitner, OrthoScan co-founder physicist Florin Coter, and Sturlesi, a founder of Galil Medical and a former employee of Rafael- Israel Armament Development Authority). The Yokne'am-based company currently employs a staff of 20.

100,000 ADSL Users in Israel

Bezeq, Israel Communications reported that it had hooked up its 100,000th subscriber to its WOW ADSL high-speed Internet service. It first offered this service speed in November 2000. The company claims its nationwide infrastructure allows it to hook up 86% of Israeli households. Bezeq noted that within a few months, all its customers would be hooked up to this infrastructure.

A Bezeq survey shows that ADSL users surf an average of 59 hours per week. The main use of ADSL Internet is for downloading files (32% of the survey sample). 11% use it for business, study, or work, while 9% use it mostly for e-mail, 8% listen to live music, and 4% surf, chat, or play online games.

The number of cable company high-speed Internet subscribers is estimated at 15,000-16,000.

The Israel High-Tech & Investment Report is a monthly report dealing with news, developments and investment opportunities in the universe of Israel technology and business. While effort is made to ensure the contents' accuracy, it is not guaranteed. Reports about public companies are not intended as promotion of shares, nor should they be construed as such.