

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES

June 2002 Vol. XVIII Issue No. 6 You are invited to visit us at our website: <http://ishitech.co.il>

JOSEPH MORGESTERN, PUBLISHER

Nobel Laureates Demand Excellence in Post-Genomic Era

At present, as a result of the ongoing security situation, only very few people from the international high-tech community, visit Israel. So it was more than refreshing to hear lectures delivered by two visiting Nobel laureates. One of these was American Prof. Barry Blumberg who was awarded the coveted prize in Medicine for his work developing and creating the Hepatitis A vaccine. The other was Prof. Aaron Klug, Nobel laureate in Chemistry, from Cambridge University. It was a most resplendent gathering. also attended by the former Chancellor of Germany, Helmut Kohl, Lord Weidenfeld of Chelsea and international supporters of BGU.

They attended the annual meeting of the international Board of Governors of Ben Gurion University (BGU), located in Beersheba, the Gateway City to Israel's Negev. A major feature was the symposium titled "Biotechnology in the Post-Genomic Era".

Over the past twelve years, BGU has transformed itself from an academically "backwoods" university, to a "sought out" place of higher learning. Today the student body numbers more than 16,000.

President Avishai Braverman, at this year's meeting, launched the National Institute of Biotechnology. Prof. Braverman has gained prominence for his ability to raise hundreds of millions of dollars, which are applied with great vigor to building up the University's infrastructure. The founding of the National Institute of Biotechnology was accompanied by the excitement and fanfare associated with the launching of an important national project. Yet, behind closed doors, warnings were sounded. Prof. Raymond Dwek, Director of the Oxford Institute of Glycobiology stipulated that BGU must acquire "the ethos of a research community". In a discussion with IHTIR he elaborated that "the proper management of this enterprise is a must. I manage 650 scientists and maintain the highest level of excellence. There is no room for less than top performance. I have noticed from my numerous visits here that this is not

always the case in Israel, where scientists and others occupy key positions, when others more suitable are held back. I feel strongly about this and have made my point in the strongest manner, during our private meetings".

Prof. Aaron Klug, Nobel laureate in Chemistry, Cambridge University was equally outspoken on this subject. "Inadequacies at BGU have to be patched up," he said during his prepared talk. "The prize will go to those

<http://ishitech.co.il>

Nobel Laureates Demand Excellence in Post-Genomic Era
Where can the National Institute of Biotechnology make its mark?
A Closer Look at Israel's Venture Capital Industry at Mid-Year
mergers a possibility, as individual funds suffer cash problems
while others are attacked for sitting on hoards of cash
The Chief Scientist Comes in where Venture Capitalists Fear to Tread

\$632 million Raised by Israeli Companies in Q1
So Who are the Super Smart Cats Among Israeli Venture Capitalists?
Ford Motor Co. to Back Novel System for Diagnoses of Piston Engines
RED-C - The #1 Candidate to Succeed in the Telecom Sector
Proneuron: Profile of a Highly Promising Biotech Company
Government's Investment in Technological Incubators
at \$300 million
CheckPoint, Mellanox and Schema on Red Herring's List
Teva Set to Acquire Honeywell Pharmaceutical
Israel Aircraft's Results are Helped by Devaluation of the Shekel
ART'S Software Adopted by Texas Instruments

who will invent new technologies to solve specific problems. For technologies to be good and viable they must originate from top quality fundamental research". The "government has no money" he reminded the audience. He is a known advocate of the principle that "science is a global enterprise with global responsibilities." Those that are funded, must be held responsible and accountable by those who provide the funding.

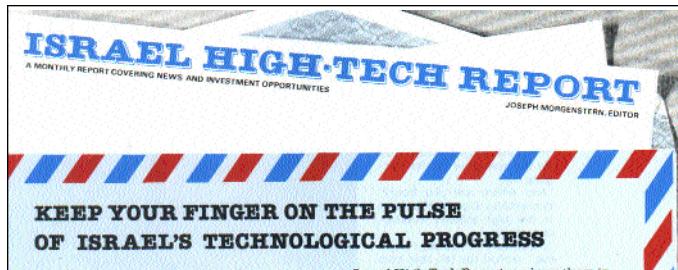
Where can the National Institute of Biotechnology make its mark?

Most likely it will come from the close relationship with the 120,000 Bedouin population, living within the extended area of Beersheba. That population is served by the city's hospital, which has maintained pertinent records for decades. This information may prove to be a window of opportunity for biotechnology solutions for unique genetic problems. The Bedouins represent a homogenous population, that lives in a "closed" environment. One of its characteristics is an extremely high incidence of intermarriage between cousins, often resulting in genetic inherited diseases. "Genetic disease is a lifetime burden and we are uniquely positioned to become more deeply involved with the Bedouin community, with the aim of reducing genetic disease," said Prof. Rivka Carmi, Dean, Faculty of Health Sciences at BGU. Philip Needleman, Chief Scientific Officer, of the American Pharmacis Corp. concurred that "the goal should be for reaching at least two unmet medical needs within ten years, and that the Bedouin community represents a wonderful opportunity for the finding of solutions for inherited diseases". "Studying of the local population could lead to biotechnology solutions in treating genetically transmitted diseases. This knowledge could be made available for the benefit of Israel's African and Middle East neighbors who have similar problems," added

Mr. Morris Kahn, is an internationally successful businessman, who in recent years has concentrated his personal efforts and capital on backing Israeli technology projects. If Mr. Kahn has his way, a consortium with Johnson & Johnson, in alliance with a leading Israeli industrial group and the Government of Israel, will establish a Technological Incubator at BGU. The new National Institute of Biotechnology at BGU was showered with blessings by the visiting Nobel laureates and other scientists. They came to Beersheba and have drawn painstakingly the

necessary roadmarks for success. They have prescribed a daunting task.

Ben Gurion University needs to appoint the most capable and dedicated research scientists for the task. If it harnesses their brainpower and applies it in an unswerving manner to research and development and adopts the recently discovered knowledge of the human genome and wedging it to the computational sciences, it will find its place, not only in the desert sun but also on the global scene.



Please enroll me as a subscriber to the
Israel High-Tech & Investment Report.

I understand that if not satisfied, I may cancel my subscription at any time and receive a refund of the unexpired portion. I enclose a check for \$95 (or the Israeli shekel equivalent and 17% v.a.t.) and am sending it to POB 33633, Tel-Aviv 61336. I am providing you with my name, title, mailing address, e-mail, telephone and fax numbers.

Israel High-Tech & Investment Report
Published monthly since January 1985

Publisher and Editor in Chief
Joseph Morgenstern, BA. Chem,

Technology Review Board
Prof. S.J. Joel-Cohen, MD, FRCS. FRCOG (1996-2002)
Prof. Hylton Miller, M.B. Ch.B.
Dr. Clive L. Carpel, M.B. Ch.B.

Copy Chief
Debbie Mor
Web Master
Marty Bokel
Graphics Consultant
Daniel Morgenstern

Subscription Inquiries
Tel. +972-3-5235279 Fax. +972 3-5227799
E-mail: htir_1@netvision.net.il
Annual subscription \$95.- per year, for 11 issues,
Israeli residents add 17% VAT
Web Edition and Archives
<http://ishitech.co.il>

A Closer Look at Israel's Venture Capital Industry at Mid-Year

mergers are a possibility, as individual funds suffer cash problems, while others are criticized for sitting on hoards of cash

A sharp decline in Israel's venture capital activity over the past 24 months, has raised serious concerns that an important source of innovation and economic growth, so critical to many Israeli companies, has evaporated. Probably, these concerns are vastly exaggerated and popularly held perceptions of the venture capital industry, are mostly in the category of myths.

Multi-year research indicates that the venture capital industry is cyclical. At a recently VC conference held at the plushy Sea Island, Georgia resort, Philippa Malmgren, a senior White House economic adviser said, "it is a cyclical business ... and one shouldn't forget that some of the very best deals happen at the low points."

The Time for Mining Gold Nuggets is at Hand

Sources in America and in Israel, in a populist manner, proclaim that the venture capital industry is ailing. Yet more than one voice can be heard stating that some of the best venture capital deals may be currently in the early germination stage. In the last decade we have noted, in times of prosperity or recession, during "bull or bear" markets, that there are gold nuggets strewn across the Israeli technology landscape, and that savvy investors will identify them even while Israeli entrepreneurs scramble extra hard for investment funds.

Josh Lerner of the Harvard Business School, has openly stated that "While we've seen dramatic cycles in terms of the dollar value of venture capital being provided, when it comes to the things that we as policy makers, really care most deeply about is: what is the impact on innovation? it's likely to be much more modest". Israeli academics rarely go on a limb to predict the impact, that venture capital flows have on this country's economic performance, and its future influence on its economy.

Israeli venture capitalists are not known for open detailing the performance of their investments. Sar Hill Econometrics, tracks the performance of America based venture and other private equity deals. The index shows that private equity deal values, double from 1992 to 1996, tripled from 1997 to 1999 and then began a sharp decline, prior to the precipitous falls that began in spring 2000.

A similar situation prevailed in Israel. According to VentureOne, a leading source of statistical information on the American venture capital industry, it obtained commitments of \$87 billion, for investment in 2000 and \$47.6 billion in 2001, a net loss of 45.3%. In Israel according to IVC Research Center, the Israeli venture capital industry obtained \$3.7 billion in 2000 and \$1 billion in 2001 for a net loss of 62.1%.

Chinks and Cracks are Beginning to Appear

Investors in Israeli high-tech made fortunes before the decline of the NASDAQ. So why the discrepancy in percentages? A small part of the drop can be attributed to the current political instability or the "Nablus Effect". Internal structural problems within the Israeli venture capital funds are the main culprits. Consequently many may find themselves forced to merge, close shop or return money to investors.

Attempt at Retrieving Uninvested Cash

A case currently being tried in Los Angeles Superior Court, is developing into a trial balloon for investor rights, as the wealth, created during the dot.com boom has spiraled down into devastating losses. Investors in venture capital funds, also known as limited partners, can't recover the losses of the past two years, but many may seek to retrieve some of the money still in the hands of the venture capitalists. The above case relates to a company named Idealab, which attracted massive interest. Dozens of investors poured in over \$1 billion for a 10 percent stake in Idealab at the height of the bubble.

The Chief Scientist Comes in where Venture Capitalists Fear to Tread

28 companies (37%) out of the total number of companies that raised capital in the aggregate amount of \$ 72 million from venture capital funds during the quarter, representing 21% of the capital raised by such companies, received grants from the Chief Scientist. This data reflects the fact that companies, that receive grants from the Office of the Chief Scientist, depend less on financing from venture capital funds.

Analysis of companies (receiving grants from the Chief Scientist) by leading technological segments:

Life sciences	9 companies: 7 medical instrumentation companies and 2 biopharmaceutical companies.
Communications and Networking-	6 companies.
Software	6 companies.
Semiconductors	4 companies.

The survey also shows that 21 (76%) of the companies that received grants from the Chief Scientist during the first quarter are registered as Israeli companies, as compared to only 7 that are registered as foreign companies.

Joseph Fellus adds that the relative weight of the Chief Scientist in financing appears to be on the increase in recent months. During the peak period in the venture capital industry, companies preferred to raise capital from venture capital funds rather than from the Chief Scientist, due to the restrictions imposed by the latter on the sale of intellectual property. However, nowadays there appears to be a change in preference of sources of finance, as the Chief Scientist comes to be considered as yet another deep pocket investor in the field.

the Internet craze in early 2000. Idealab pioneered the concept of high-tech incubators — entrepreneurial communes. The founder of the company has said that the incubator is in great shape, with \$360 million in cash and other liquid assets, as well as a batch of promising high-tech startups. The investors feel otherwise. A venture fund exists legally as a limited partnership for a specific period of time, typically on the order of seven to ten years. Over a period of time it is expected that the general partners will invest the fund in accordance with any guidelines established at the fund's inception, and will diligently monitor the performance of the fund's investee companies.

For their services as intermediaries, the general partners typically receive an annual management fee of a few percentage points, in most cases 2.5% of the fund's total assets and a carried interest, or "carry," specified as a fixed percentage, typically on the order of 20-30%, of the capital gains realized at the close of the fund. At the termination of the fund's (limited partnership's) life, all proceeds from the investments, less the carry, are distributed to the investing partners. If the investors can force the liquidation of Idealab it

could well embolden investors among the poor performing Israeli venture capital funds, to insist on getting their money back, or whatever is left of it. The local Tamir-Fishman VC Fund may be on the brink facing action to return cash, a percentage of which is collecting as management fees. More than two years have gone by since its Public Offering on the Tel Aviv Stock Exchange.

At the time Tamir Fishman Ventures II aimed at raising a total of \$150 million from private investors, and up an additional \$50 million through the floatation of Tamir Fishman Ventures II Ltd. on the Tel Aviv Stock Exchange ("TASE"). Then IHTIR wrote that "the new fund's value should benefit from making investments at lower price levels than at the outset of 2000 when deal prices were high priced at a premium over current levels." However, two years later, our positive expectations have not been realized. Israel's business daily wrote recently: " Institutional investors, including Ilanot Betucha, (Ilan Betucha is the largest investment house in Israel) have claimed in the past that there is no justification for the existence of a fund that sits on NIS 167 million (\$:

million at current rates of exchange) in cash, with investments only in 11 portfolio companies that amount to just a few million dollars. The money is therefore not invested as venture capital at all, but managed by Tamir Fishman's management company, which draws NIS 5.5 million in annual fees for its trouble". Ilanot Betucha, a substantial investor in the shares of Tamir-Fishman, entered into an a consultation agreement whereby it will receive part of the management fees earned by the fund.

What remains to be seen, is whether other investors will sit quietly on the sideline and contemplate a nearly 60% erosion in the value of the publicly traded Tamir-Fishman shares.

Our conclusion is that we will be hearing of the demise, or near demise, of the less nimble VC funds.

\$632 million Raised by Israeli Companies in Q1

We have arrived at a consensus figure that the Israeli high-tech industries raised \$376 million in Q1 2002 as compared to \$632 million in Q1 2001, a 41% loss to the high-tech industry. VentureOne's statistics for the USA total \$5.1 billion in Q1 2002 as compared with \$10.9 billion in Q1 in 2001, a 53% drop.

So the bottom line is that while this country's technology industries are receiving less funding than a year ago, nevertheless, they are doing rather well as compared with what is happening in the United States. Moreover, 9% of the total funding for Q1 in Israel came from foreign sources.

So Who are the Super "Smart Cats" Among Israeli Venture Capitalists?

We enumerated the "fat cats" in our May 2002 issue. We listed the names of the 20 of the largest Israeli Venture Capital Funds. From the top down we included: Apax, Pitango, Jerusalem Venture, Star Ventures, Giza, Genesis, BRM, Evergreen, Israel Seed, Benchmark, Gemini, Jerusalem Global, Concord, Sequoia, Cedar, Carmel, Challenge, Vertex, Tamir Fishman and Walden. One of these, Jerusalem Global, reportedly returned uninvested funds to its investors, after a catastrophic bout with dot.coms. Apparently Shlomo Kalish "got it right", as the fund continues to function.

As our lead feature story indicates, the VC industry is currently precariously situated and new horizons and vistas are needed.

IHTIR spoke to Mr. Moshe Schnitzer, the legendary diamantaire and visionary leader of the Israeli diamond industry. Some 30 years ago he pointed to the Far East as the direction for the diamond industry. He also "had it right". Sales to the Far East, at the time, helped to prop up the diamond industry and from collapsing. "I continue to believe that one should not put all the eggs in one basket. Thirty years ago we focused on Japan and today we are looking at China," the feisty octogenarian told IHTIR.

Israel's venture capital industry is not blessed with a leader possessed of the magnetic personality of Moshe Schnitzer. However, a number of seasoned professionals in response to European and American private equity investors are abandoning investing in local VC firms. They are aiming to expand their presence in Singapore. Early in May a conference was held there. Participating were the managers of the four most active Israeli venture capital funds in that part of the world - Yoram Orof of Vertex, Zeev Holtzman of Giza, Shuki Gleitman of Platinum and Rami Kalish of Pitango. They promoted the case for the government of Singapore and its venture capitalists to invest in their Israeli counterparts.

Singapore has always had a two pronged approach to investments in high-tech outside of its borders. One was to bring high-tech industry to Singapore, to help bring the country into the circle of the most technologically advanced countries in the world. The second goal was to profit from these investments. We duly took notice of this interest in our September 2000 IHTIR issue we wrote an article captioned "Singapore Signs Milestone Agreement for Israeli Satellites".

"Israel concluded negotiations with Singapore to build satellites, from its Ofek series, with intelligence-gathering capabilities. The contracts are expected to total \$600 million. Singapore and Israel are also expected to cooperate in future ventures on satellites with intelligence gathering capabilities".

The report further pointed out that Singapore'

investments in Israel are primarily strategic. In recent years, the country has been establishing itself as the central base for companies and trade, in Southeast Asia. Until now, some 6,000 international companies have set up their regional headquarters in Singapore, and this small country hopes that through its investments in VC funds, it will attract hundreds of additional start-ups from Israel.

The Israeli high-tech industry, which has always viewed the United States as its main target market, followed by Europe, is now discovering the Far East. "The only market that is growing for Israeli companies is the Asian market," said Rami Kalish, Pitango Ventures manager. "There is no reason for Israeli companies not to take advantage of this immense market, which could be bigger than the American one."

Ford Motor Co. to Back Novel System for Diagnoses of Piston Engines

An advanced yet simple to operate analytical system for diagnosing the mechanical working condition of piston engines, has drawn the attention of the Ford Motor Co. Ford, which sells cars and trucks and in 2001, sold approximately seven million vehicles throughout the world, may invest \$1.0 million in the project. What interests Ford, was that the system developed by researchers at Ben-Gurion University of the Negev, had already met the strict and demanding requirements of the Israel Air Force and Intelligence services. The system, even before its use, has become known widely, and has been labeled as a technological breakthrough. It offers a solution to several industries, and could become a niche product in the accurate diagnosis of the mechanical condition of piston engines. The vision is to implement this technology across a wide range of applications. Its appeal is clear when comparing other cost effective maintenance programs for engines, in land, air and seaborne vehicles.

IHTIR spoke to Prof. Sher during a demonstration of his "engine diagnostic kit" at an Israeli Naval base in Haifa. "We have already sold a number of systems to the Israel Air Force and the Intelligence Corps. We also modified our basic system to be used in examining of drone engines". (drones are small planes generally known Remotely Piloted Vehicles) They are operated from remote control stations and are used to record real time pictures of the terrain



Israeli produced drones are likely beneficiaries of the new technology

over which they fly. The Israel High-Tech & Investment Report has reported on the developments of the Israeli produced drones since their outstanding success in pinpointing the location of Syrian SAM missiles in the Bekaa Valley in Lebanon. The information gathered by the drones led to the destruction of these menacing missiles.

"The system is both simple in appearance and in operation, as it consists of two sensors which are connected to a laptop. The algorithm, for which patents are pending and for which we expect to get approval, is a key element in providing the system with its ability to record engine vibrations and analyze its operational qualities," explains Prof. Sher.

The project, is a classic transfer from academia to the commercial world. It was developed under the auspices B.G. Negev Technologies, the applications arm branch of Ben-Gurion University of the Negev. The key researchers behind the development of the innovative system are Prof. Eran Sher, Chairman of the University's Department of Mechanical Engineering, along with Dr. Gal deBotton, a departmental colleague. Two years ago the project was moved into the Ofakim Technological Incubator and it will be graduating shortly from there, to begin its operation as a commercial concern. Financing came from local and European investors.

"Just as a doctor uses a stethoscope to diagnose the condition of the heart and lungs by merely listening," explains Sher, "deBotton and I have found a way to rigorously evaluate the 'health' of engine components by 'listening' to motor vibrations via sensors

connected to a specially programmed microcomputer.

"Our project is the first to overcome the problems associated with vibrational analysis of internal combustion engines – the background noise of combustion and the uneven rotary motion deriving from nonuniform cylinder power. Vibrational analysis enables determination of cylinder imbalance, identification of faulty fuel injectors, bearings, rings, or valves and even problems with the engine mounting and crankshaft."

"An analysis of vibrations," explained Prof. Sher, "is a system of locating malfunctions, that is becoming accepted around the world. The system is used primarily in jet engines and expensive factory equipment, in the context of what is called "predicted maintenance," as distinguished from preventive and breakdown maintenance. In addition, the uniqueness of our product lies in the fact that this is the first time that a system has been developed to diagnose the mechanical condition for identifying anticipated malfunctions in piston engines."

As steps are being taken towards commercialization of the first system, Prof. Sher is continuing towards developing applications for eighteen cylinder diesel engines.

RED-C the #1 Candidate to Succeed in the Telecom Sector

RED-C was founded in early 2000, as a spin-off from Elop Electro-Optics Industries Ltd. Its founders were a part of the group that had worked intensely to develop the Chromatis optical layer. RED-C Inc. registered under the laws of the state of Delaware, USA, which fully-owns RED-C Ltd. the Israeli company, handles all R&D and production operations. RED-C Inc. is responsible for all marketing and sales activities in North America. RED-C Ltd. was granted an Approved Enterprise Status under Israeli law, entitling the company considerable tax benefits.

RED-C's founders include Yossi Boker, COO & CFO,

in charge of business and finance tasks, while Dr. Uri Ghera and Boaz Lissak, CTO and Chief Scientist respectively, are in charge of R&D. The vision for the founding of the company was the perception of a substantial business opportunity for creating a superior amplifier for telephone network operators employing optical fibers. At that point in time, telephone networks faced an ever growing increase in traffic both for business and individual users, depended on optical amplifiers to improve transmission.

During a visit to the company's Israeli facility Yos Boker, explained to *IHTIR*, that those amplifiers provided a flattened gain and low Noise Figure for a certain fixed gain. The plan was to exceed the limitations of the existing art. RED-C's R&D group which today numbers 30 employees, half of whom are physicists (including about 10 Ph.D.'s) together with electrical and software engineers, developed state-of-the-art dynamic optical amplifiers. In contrast to the existing EDFA and Raman amplifiers, the RED-C product delivers improved network performance and cost efficiency. "Our intellectual property is made up of six pending patents and include unique algorithms. It results in more network spans and it either eliminates or reduces the need for regenerators, which make up a major cost factor in networks' hardware," explained Boker.

RED-C targets the high-end segment of the optical amplifier market, whose size is estimated at \$772 million for 2002, expanding to \$1.1 billion by 2006. RED-C's targeted customers comprise leading optical networking/ system vendors for the leading Ultra long-



Haul and Metro applications. RED-C has conducted successful field tests with Bezeq, Israel's National Telecom. Bezeq reported that the product's technical concept was tested and confirmed. RED-C expects to launch the Raman product by the end of 2002.

Though initial sales have been made, 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," projects Yossi Boker.

IHTIR was taken for a 'walk through' part of RED-C's 1,500 sq.m. (approx. 15,000 sq.ft.) leased space in suburban Tel-Aviv. The facility has a fully-equipped production floor, accommodating up to 35 production employees per shift, producing up to 10,000 optical amplifiers per annum.

A comprehensive set of automatic quality assurance and testing procedures is employed and includes "torture tests" at highly elevated as well as freezing temperatures. The amplifier appears similar to a conventional computer modem.

The company is well funded. MRV Communications Inc. (Nasdaq: MRVC), a world-class leader in optical network components and systems, has provided a \$16 million seed investment for slightly more than one-third of equity. EL-OP holds an equivalent amount of shares and the rest is held by company personnel.

At the recently held Annual IVA Israel High-Tech Conference, RED-C was named as "Israel's most likely to succeed" startup in the telecommunication industry. Our overall impression is that RED-C has the experience, personnel and vision to make a major impact on the highly competitive and rewarding fiber-optic market industry.



Solar Genomat.Landsman

Proneuron: Profile of a Highly Promising Biotech Company

PRONEURON BIOTECHNOLOGIES, INC.

Proneuron, a Delaware registered company, is the first biotechnology company to apply the power of the body's own immune system for the treatment of permanent debilitating central nervous system (CNS) disorders. The six year old company bases its activities on the groundbreaking research of Professor Michal Schwartz of the Weizmann Institute of Science which demonstrated the role of immune response in normal and pathological conditions in the central nervous system. Currently Proneuron is focusing its expertise in cell therapy and neuroimmunology on the development and commercialization of a treatment for spinal cord injuries (SCI) as well as other neurological disorders, which until now were considered incurable.

SCIENTIFIC RATIONALE

The body, routinely employs the immune system, to protect against intruding microorganisms (such as bacteria and viruses) by attacking and eliminating them. Traditionally, it was believed that protecting the body against harmful self-compounds, which cause nerve degeneration in acute and chronic conditions, was not part of the immune system's function and that immune cell activity may further exacerbate the degenerative process. However, Prof. Schwartz has shown that appropriate modulation of the immune system, can protect the body and overcome the normal inhibition of recovery and neuronal loss following injury to the CNS. As a result of these findings, her group has devised a novel form of therapy, in which the natural activity of the immune system is harnessed to facilitate recovery after acute SCI and attenuate neuronal los-

in diseases such as Amyotrophic Lateral Sclerosis (ALS), Parkinson's disease, and glaucoma. The concept of helping the body to "cure" itself, offers hope for the millions of victims of nervous system-related injuries and disorders.

PRODUCT PORTFOLIO

To date, this approach has provided the Company with its lead candidate, Autologous Activated Macrophage Therapy, currently in FDA approved Phase I trials for the treatment of complete SCI. Proneuron has recently completed enrollment of patients in the study. Preliminary results suggest, that the therapy is safe. Furthermore, it has exhibited promising efficacy. Due to the significant unmet need in the area of SCI, the company anticipates that the FDA will grant the Autologous Activated Macrophage Therapy accelerated approval status. The company is also conducting a Phase Ib clinical study in collaboration with the Erasmus Hospital in Brussels, Belgium. This study is expected to complete enrollment of patients before the end of 2002.

It is estimated that there are approximately 35,000 new SCI victims each year. These injuries typically occur during an individual's most productive years, between the ages of 16 and 30. The trauma frequently results in significant morbidity, including respiratory problems, bladder and bowel dysfunction, and loss of motor function. Moreover, these sequelae represent a significant physical, psychological, and economic burden to the affected individual and a substantial economic burden to society. For example, it is reported that first year costs associated with spinal cord injury range from \$325,000 to \$500,000 per patient, potentially exceeding \$2 million over the life of the patient.

Proneuron believes that treatment of complete SCI represents an attractive niche market opportunity, and anticipates launch of the Autologous Activated Macrophage Therapy, in 2005. The company intends to market the therapy through its own sales force and distribution network. The concentration of its target customer, neurosurgeons treating SCI, and the uniqueness of the Proneuron Cell Centers will allow the Company to feasibly achieve this goal.

Today, the Company operates two cell-processing centers: one in Israel and one in Belgium. To support the next stage of clinical trials, Proneuron is actively negotiating with several model rehabilitation centers and leading academic institutions located in large

metropolitan areas throughout the US. Proneuron will establish several cGMP compliant cell centers in the US during 2002 and 2003, and will upgrade the Belgian and Israeli cell processing centers to support its clinical trial program and the commercialization of its therapy.

To enhance its dominance in the area of SCI, Proneuron is intensively pursuing a research and development program to address the specific challenges associated with developing a therapy for incomplete SCI injuries.

In addition to the Autologous Activated Macrophage Therapy, Proneuron has developed a proprietary therapeutic vaccine for acute and chronic neurodegenerative disorders. This agent is the result of work performed by Professor Schwartz, demonstrating that progression of various neurodegenerative disorders could be attenuated via therapeutic vaccination. The therapy is currently in late stage preclinical development for various indications.

The therapeutic vaccine uses Copolymer-1 (Cop-1), the active compound in Copaxone[®] (Teva Pharmaceutical Industries), which is an FDA approved treatment for Multiple Sclerosis. During 2001, Proneuron entered into a strategic collaboration with Teva to develop this proprietary therapeutic vaccine. Proneuron has licensed to Teva the development and commercialization rights to its therapeutic vaccine for various indications. In addition, Proneuron has secured a development and supply agreement from Teva that will allow it to independently commercialize the agent for certain indications that fall within the Company's strategic focus (i.e. ALS or Lou Gherig's disease, Huntington's disease and partial spinal cord injuries). Based on promising preclinical results and the proven safety profile of Copolymer-1, Proneuron is in the process of implementing an intensive development plan that will allow it to commence clinical studies in ALS during 2003.

Proneuron's portfolio also includes a novel molecule, Immune Privilege Peptide (IPP), which has been shown to possess immuno-modulating properties.

Company Profile

Proneuron has a 18,000 square foot R&D facility in Ness-Ziona, Israel. This facility includes a GMP cell-processing center. The Company currently employs 40 professionals, including more than 20 PhDs and MDs. Proneuron also benefits from its exclusive research contract with the Weizmann Institute. Under this agreement, initiated already in 1996, 15 scientists are supporting Proneuron's pipeline expansion under the

leadership of Prof. Michal Schwartz.

Proneuron's clinical trial of the macrophage therapy began in 2000, under an 'Investigational New Drug' (IND) authorization from the US FDA and the Israeli Ministry of Health. Patients from the US, Europe and Israel participated in the study following the referral of leading hospitals. Those patients who met eligibility criteria were transported by Proneuron to Israel for administration of the experimental cell therapy and follow-up at the Sheba Hospital in Israel, before returning to their homes for long-term follow-up.

Over the course of the trial, Proneuron has had enquiries from hundreds of prospective patients wishing to enroll in the study. Dr. Valentin Fulga, Proneuron's Senior VP of Development, noted the enormous effort that patients, their families and their referring physicians have made in helping to advance Proneuron's clinical investigation, and a hope to continue to help others in return for their support.

Dr. Daniel Lammertse, Medical Director of Craig Hospital in Colorado and President of American Spinal Injury Association, has followed the clinical progress of several of the Phase 1 trial subjects. Dr. Lammertse expressed cautious optimism for the potential of this treatment noting that, "the Phase 1 results suggest a positive treatment effect, giving clinicians hope that a new era of intervention is at hand."

Given Gives Good News

The company announced sales of \$5.2 million for the first quarter of 2002, 50% higher than the fourth quarter of 2001. The first quarter represents the

Strong Buy

Wade King, Medical Technologies
Robertson Stephens

Given Imaging Ltd. 12-Month Price Target: \$20.00
F2002E EPS: \$(0.81), up from \$(0.86)
F2003E EPS: \$0.19

Investment Conclusion: Given reported full Q1'02 results above our expectations. We believe the company will continue to expand into the small bowel market, especially with increased physician exposure at the DDW meeting in mid-May and continued wins on reimbursement. Looking ahead, Given's installed base of systems should drive disposable revenues. Our rating on the shares of Given is Strong Buy.

second full quarter of sales for the company for both the U.S. and European markets following FDA clearance of the Given Diagnostic Imaging system in August 2001. On a geographic basis, sales of the Given System in the United States accounted for 53% of the quarter revenues. A geographic breakdown of first quarter 2002 sales is as follows:

United States	\$2.8
Europe	\$1.7
ROW	\$0.7

Net loss for the first quarter of 2001, including the costs related to the withdrawn follow-on financing was \$5 million, or \$0.23 per share.

During the first quarter, Given Imaging sold more than 4,700 M2A capsules of which approximately 3,100 represent reorders. The Given System installed base reached 380, with 172 systems installed in the United States.

Government's Investment in Technological Incubators at \$300m.

The Government's share of investments in Incubators for Technological Initiatives, amounted to \$300 million in 2001.

83 ventures have completed their stay in technology incubators last year, 59% of which succeeded in raising private money at the end of the two-year incubator period. 75% of the ventures are continuing as go-or-concerns. Incubator-operated ventures raised \$60 million in 2001. 23 technology incubators are active around Israel, including 14 in development areas and three in Jerusalem.

First IPO Debut but Price Falters in Market Trading

Verint Systems (Nasdaq: VRNT) sold 4.5 million shares at \$16. Lehman Brothers managed the offering, which raised \$72 million for business expansion and repayment of debt. The offering price gives the company a market cap of \$374 million. It marked Israel's first IPO in 2002.

Verint provides software that manages video security, wiretapping and surveillance technology for businesses, law enforcement and other government agencies. America's increased attention to security issues opened the IPO pipeline to the security technology firm. The company's financials weren't quite strong enough for investors to push the price beyond the bottom of the range. Although some of Verint's financials are

improving, the picture isn't completely rosy. The company narrowed its losses by 46% to \$4.7 million for the year ended January 2002 compared to the prior year. But sales also slid 7% to \$131 million. The company, filed Feb. 7 to sell up to \$75 million of shares but didn't detail the terms of the IPO. The shares have fallen 23 percent since their debut.

CheckPoint, Mellanox, Schema on Red Herring's List

Israeli companies CheckPoint Software Technologies (Nasdaq:CHKP), Mellanox Technologies and Schema made technology magazine Red Herring's list of 100 companies most likely to change the world.

The monthly published a list of 50 private and 50 public companies likely to lead the world tech sector in technology and marketing. Red Herring calls the companies on its list "bent on overcoming theoretical scientific limits and capable of building sound business models from their developments".

The magazine subjected each candidate to criteria favored by VCs and investment banks: the firm's potential to disrupt an existing market or to create a new one altogether, its execution of strategy, and the quality of its management, as well as financial performance.

Two Israeli companies made the roster of privately-held companies: Infiniband chip-maker Mellanox Technologies and Schema, engaged in optimizing cellular networks.

The only publicly-traded Israeli company to make the grade is Internet security giant CheckPoint, listed alongside such technology bellwethers as Microsoft, Oracle, Sony, NTT Docomo, IBM, Dell, SAP and Nokia.

In the magazine's "Ten to Watch" list, ten startups, mostly in the early stages of development, that the editors believe are worth watching in the coming year, Israeli Voltaire is singled out as the only company developing routers, as opposed to chips, based on the up-and-coming Infiniband technology.

Teva Pharmaceutical Set to Acquire Honeywell Pharmaceutical

Teva Pharmaceuticals has entered into an agreement to acquire Honeywell Pharmaceutical Fine Chemicals for an estimated \$90 million.

Honeywell produces active pharmaceutical ingredients and it had a turnover of \$55 million last year. Honeywell PFC produces a wide variety of bulk active pharmaceutical ingredients (API); as well as simple molecules through highly complex advanced intermediates in the worldwide manufacturing facilities. Its four FDA approved cGMP facilities are located in Freeport, Bahamas, Arklow, Ireland, Bulciago and Caronno, Italy. Its Germany fine chemical facility is ISO certified.

Honeywell has 2,000 cubic meters of reactor capacity and is one of the largest independent suppliers to the global pharmaceutical industry, with the unique ability to accommodate the needs of large, mid- and small-size firms.

It offers global resources for pharmaceutical companies looking to obtain active pharmaceutical ingredients (API), intermediates or custom manufacturing support with a wide range of core technologies and chemistry including bromination, oxidation, fluorination and organometallic chemistry.

Israel Aircraft's Results are Helped by Devaluation of the Shekel

Israel Aircraft Industries (IAI) reported net profits of \$1 million for the first quarter of 2002, compared with \$20 million in the same period last year, a decrease of 2 percent. Profits from operations increased by 2 percent, from \$15.9 million to \$19.7 million.

Company sales in the first quarter of 2002 totaled \$50 million, compared to \$499 million in the same period last year, an increase of 2 percent. The company's order backlog at the end of the first quarter of 2002 totals \$3.7 billion.

Business results for the first quarter of 2002 were better than projections, which anticipate that in the second half of the year 2002, conditions in the market place will improve.

In his comments for the company's financial results for the first quarter of 2002, Mr. Ori Orr, Chairman of the Board said: "IAI is coping today with complex and harsh market conditions. The strength and resilience of the company are being put to a test. IAI's financial results for the first quarter of 2002 prove once again that the company has prepared itself for a situation of crisis in the market; a situation that has started 18 months ago and continues today. Despite encouraging signs, we still cannot announce the end of the difficult era. IAI management is prepared for adaptations in the

company's activities for the future to come." Mr. Moshe Keret, IAI's President & CEO said: "In the first quarter of 2002, IAI has been operating in a trying

The Benefits of Devaluation of the New Israeli Shekel in Q1 2002

In the first quarter of 2002 the Israeli currency was devalued by 7.7% from NIS 4.41 to NIS 4.75 to the American Dollar. The impact of the devaluation on major industrial exporters can be substantial. Israel Aircraft Industries' expenses are mostly incurred in Israel and are settled in Israeli shekels. On the other hand, the company's export sales are generally denominated in US dollars. Due to the devaluation the company obtains more shekels.

and and highly competitive business environment, that has been characterized by the continuation of the economic slowdown in the company's principal markets for commercial products, and in the escalation of the security situation in Israel. In light of these circumstances, the company's financial results in this quarter deserve special appreciation. The results were accomplished thanks to the restraint in expenditure and the continuation of the austerity program. The significant devaluation in the Shekel's (NIS) rate of exchange has also aided in achieving the results, since IAI is the largest exporter in Israel."

In his remarks on IAI's financial results for the first quarter of 2002, Dr. Abraham Knobel, Vice President Finance, added: "The devaluation in the Shekel's (NIS) rate of exchange had a positive influence on the company during the first quarter of the year. Keeping the current rate of exchange will increase IAI's competitive ability in export markets, and will contribute to the renewal of growth both in IAI and in the entire Israeli market, provided the economic policy will prevent the erosion of the devaluation by a local increase of prices."

ART'S Software Adopted by Texas Instruments

ART Advanced Recognition Technologies, Inc., specialists in natural Human User Interface

technologies for the mobile world, announced the "porting" of its speech recognition solution to Texas Instruments Inc.'s digital signal processor platform.

An embedded, software solution, it has passed Texas Instrument's compliance, ensuring compatibility algorithms and ease of integration into customer applications.

The company has stated that "this is the first ever phonemic speech recognition solution to wireless mobile devices" and that its software provides speaker independent name dialing and other dynamic command functions.

"TI's platform already drives thousands of applications on next generation hand-held and Internet-enabled multimedia devices around the world," says Raymond Wagstaffe of Texas Instrument. "We are confident that our customers will see the value of the smARTspeak X for their real-time designs and will welcome the dynamic phonemic-based solutions made possible by ART."

"After more than a decade of creating ground-breaking speech recognition solutions, we are delighted with the reception that ART's new smARTspeak XG has received at Texas Instruments," said Eran Aharonson, ART President. "High in feature-rich potential and low resource demands, we are committed to creating the exciting next generation of hand-held, PC-connected and Internet-enabled products on TI's programmable and ultra power-efficient C5000 platform."

About the smARTspeak XG

The smARTspeak XG is the first embedded speaker independent name dialing solution designed for wireless mobile devices. Based on phonemic identification, the XG needs no training to perform accurate name dialing no matter how command sentences are structured. The 'Call John Smith in his office' or 'John Smith -- office' both provide the same accurate response. Updating the smARTspeak NG platform, the XG offers the previous popular modular features of speaker dependent name dialing, speaker independent continuous digit dialing, speaker independent command & control and trainable continuous digit dialing for custom languages.

Allowing near infinite out of the box freedom, the X being truly speaker independent -- now means the same device can respond with equal accuracy to the commands of multiple users.

The Israel High-Tech & Investment Report is a monthly report dealing with news, developments and investment opportunities in the universe of Israeli 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.