

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES

JOSEPH MORGENSTERN, PUBLISHER

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## Venture Capital Woes Send Shock Waves

Israel's venture capital industry sees itself embattled as it faces new situations not previously encountered in its decade old history. Over a five-year period ending in 2000 the Israeli venture capital funds raised no less than \$6.1 billion dollars, peaking at \$3.29 billion in 2000.

They invested in 512 companies, out of a total of 2500 existing companies. "Of those, 1,200 will have closed their doors by the end of the next 12 months," somberly predicted Eran Mordechai, Research Head of IVC-Online.

The highly negative investment atmosphere is accerbated by more than a year of a falling Nasdaq stock market. Locally, many Israeli high-tech companies are closing their doors, while others sharply reduce the numbers of employees. Several industry sources predict that 1,200 high-tech companies will close their doors in the foreseeable future. Additionally, eleven months of violence against Israel has not made it easier to raise capital from overseas. The question is why has the Israeli Venture Capital Industry chosen now, at what some consider an inappropriate time, to ask for tax relief? We always figured that the venture capitalists generally considered as down to earth, hard-nosed lot, could have predicted that the dot.com bubble would burst. And that it would be followed by a period of dearth of capital for investment and few windows of opportunities open for early "exits". ("Exit" is the industry's jargon for the cashing out of an investment by way of an initial public offering or by way of a merger or acquisition)

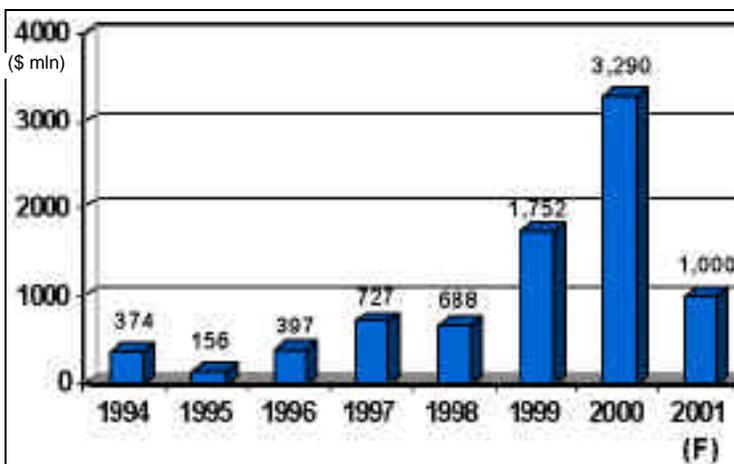
In that sense the VC industry appears to have been no less naive then the masses of investors who were hypnotized by the hype of the Alice in

Wonderland make believe world, of escalating stock prices and the mountains of cash being pushed into the coffers of the venture capital firms. Inevitably the money flowing in was accompanied by the command: "invest it as quickly as possible". And so they did: pouring in an all-time record \$3.1 billion of investments, and this sum was picked up by the Israeli high-tech sector in 2000. In retrospect, if some concern for the future would have been manifested, psychologically it was then the best time to plead for Government tax

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1994-2001 Capital Raised by Israeli Venture Capital Funds:IVC-Israel Venture Capital

alleviation. Today the time is less than propitious. The Israeli Venture Capital Industry has only most recently approached Finance Minister Silvan Shalom with a request to cancel, for a limited period of time, the capital gains tax currently levied on foreign investments in Israeli venture capital funds, revealed Yigal Erlich.

The Israeli venture capital industry has a credible case to present to the Government. While we are

#### A snapshot: The \$ 8.0 billion Israeli VC Industry

\$3.9 billion	Invested
\$2.8 billion	Reserved for Portfolio Companies
\$1.3 billion	Available for new investments

not suggesting that Israel is a top ranking tax haven, nevertheless it is a country that traditionally favored the "outsider over the insider".

A case in point, is the Israeli banking industry which claimed many years ago, that obtaining foreign dollar deposits was the route to create a stable banking industry. As a result of pressure applied by a strong "lobby", the banking sector received the approval of the Finance Ministry and the Income Tax Department, to exempt foreign institutions and foreign private investors from tax on the interest earned by such deposits. According to the Bank of Israel, these deposits stood at \$20.8 billion at the end of 2000. We estimate that the total loss of income to the Treasury in 2000, was about \$26.0 million.

"Bear Stearns has invested millions of dollars in two Israeli VC funds but until the Government of Israel creates a level playing field, as in other countries where we invest, Bear Stearns, will cease to invest in Israeli VC funds", says Gerald Segal, managing director of the investment banking arm of American Bear Stearns.

Israelis who maintain dollar deposits in Israeli banks, by contrast have a 25% tax levied on interest earned on these deposits.

Even my barber Moshe recently moaned that maintaining dollar deposits due to the low interest rates, and the tax levied on interest earned, made a dollar deposits an unattractive investment for his hard earned savings.

Another well known tax break favoring foreign investors is that of the Eisenberg Law, originally passed by the Knesset, Israel's Parliament. The late international businessman, Shoul Eisenberg, obtained tax free status for 30 years for the activities of his various companies, many of which were transferred to Israel and became based here.

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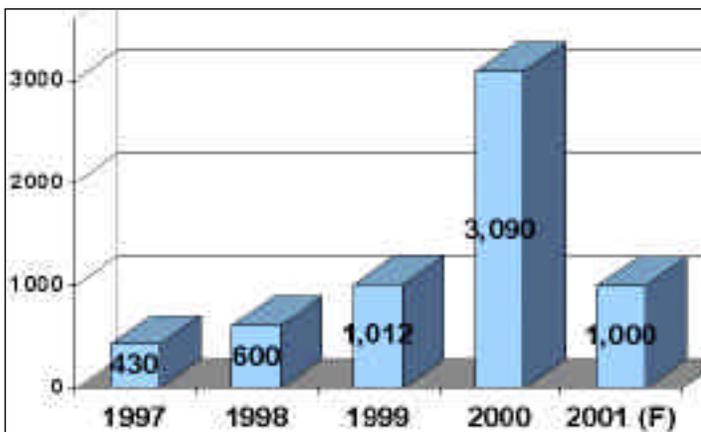
Had the VC industry, two years ago, pointed to its achievements and then suggested that taxes be dropped so as to obtain even better results, they would have had a prima facie case. Under today's high-tech global conditions it is less certain. Israel's venture capital fund industry, in recent years, has enjoyed an incredibly buoyant period of prosperity. In the four years ending with 2000, the Israeli venture capital funds have raised an all time record figure of \$6.5 billion. To the credit of the local industry, Israeli high-tech companies have raised \$5.1 billion where at least one investor was an Israeli venture capital company. While local venture capital funds do not publish profit and loss figures, one can expect parallel figures to those results achieved by their American counterparts. These, according to a study of 1,400 US venture capital funds in the five years ending March 31, 2001, have realized an annualized return of 43.4%, according to American Venture Economics. The Israeli VC industry, could seek a solution to its tax problem, by collecting a contribution of \$15,000 from each of Israel's more than eighty funds for lobbying the Government. It is not unreasonable to assume that a \$1.0 million pool of money would suffice to finance a strong lobby which could

## “Carbon Membranes” a Negev Nuclear Research Center Commercial Spin Off Set for Major Business Inroads

Until the appearance of the book, "Israel and the Bomb" by Avner Cohen, published by Columbia University Press, there was a dearth of information regarding Israel's nuclear history and next to no information regarding commercial spinoffs. Cohen writes, that Israel first crossed the nuclear weapons threshold on the eve of the 1967 Six Day. The author focuses on the two-decade period until 1970, during which David Ben-Gurion's vision of making Israel a nuclear-weapons power was realized. The Israel High-Tech & Investment Report, has over the years been able to identify only a few commercial spinoffs originating from Israel's military or defense sector.

This past May during a visit to the Rotem Industrial Park, adjacent to the Israel's Nuclear Research Center- Negev (NRCN) *IHTIR* was introduced to Len Kaplan, Marketing Manager of Carbon Membranes Ltd. a promising startup whose activities are the direct outcome in the commercial applications of technologies, processes and products originating from Israel's Nuclear Research Center- Negev (NRCN). Kaplan describes how the company's technology is used in industry. "The new product is based on the company's patented technology. It has developed an innovative hollow fiber carbon molecular sieve technology, which offers for a broad range of industries, superior separation capabilities in a variety of gas applications. The patented production process enables control of pore size in the carbonized fiber wall, imparting a degree of selectivity far superior to that achievable by alternative methods. This selectivity, together with the mobility and modular design of the unit, allow for its use in a series of challenging applications".

Streams of CO<sub>2</sub>/CH<sub>4</sub> are emitted from various sources. Carbon Membrane can separate the



Capital Raise by Israeli High-Tech Companies  
IVC-Israel Venture Capital

pursue the industry's vital interests. After all, it is undeniable that the future prospects for the return of healthy growth for Israeli high-tech industries are related to its ability to pinpoint sources of capital which will see them through their early stages of development.

gases emitted from biogas sources (waste landfill sites), thus clearly recovering both valuable gases. Many industrial streams require the separation of hydrogen from methane also efficiently achieved by the carbon membrane, enabling the use of the hydrogen for production

in the petrochemical industry. Air Liquid will be active in a joint project through its subsidiary MEDAL together with Carbon Membranes Ltd. The project is based on an innovative technology for separating propane from propylene. This technology is intended to replace part of the

### ***Rotem Industrial Park***

Rotem Industrial Park is located near Dimona, Israel, Its 22,000 sq.m.area available for business and industry. It makes available Scientific, engineering and personnel backup along with World-class infrastructure and services.

It was founded to enhance the development of companies whose activities are the result of commercial applications of technologies, processes and products originating from Israel's Nuclear Research Center-Negev (NRCN)

Other subsidiaries and affiliates:

Rotlex Ltd., Negev Software Industries Ltd. NSI com Ltd. X'ian Xnif Rotem (XXRI),

of environmentally friendly fuels. Product properties: high chemical and temperature stability (working temperature between  $-150^{\circ}$  and  $+170^{\circ}$  C) and pressure resistance. Through development of modules with up to 20.000 fibers, sieve areas of up to 10 m<sup>2</sup> can be obtained. Pore size distribution can be adapted along the hollow fibers.

Another application is the prevention of pollution by fluoride greenhouse gases like SF<sub>6</sub> and PFCs. These gases, which are completely retained by the membranes can be recovered, and save considerable production costs to the gas users. This green product thus can be useful both for cost reduction and for fighting global warming.

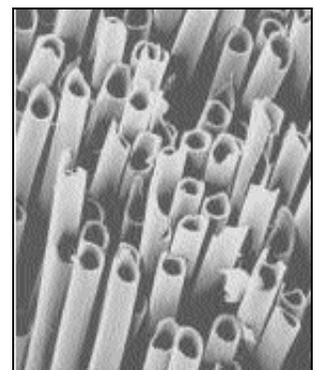
The potential savings to be gained from applying the gas separation technology are immense but require specific development. Among prominent US companies participating in BIRD Israel-US Binational Industrial Research and Development Foundation (BIRD) financed projects is Air Liquid, which is the largest gas company in the world that builds and operates gas separation systems

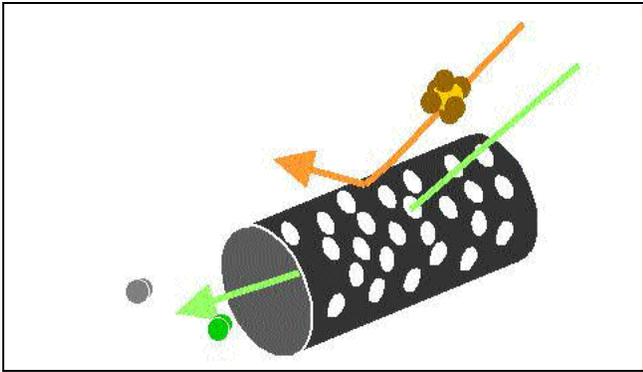
expensive, energy consuming splitters in use today for separating propylene, a principal raw material used in the petrochemical industry, as well as in the production of the widely used plastic polypropylene.

The developed product will bring about considerable savings in both investment and production costs of refineries and polypropylene production facilities.

Carbon Membranes Ltd., a sophisticated technology company, is a subsidiary of Clal Industries, one of the largest companies in the Israeli industrial sector.

It is engaged in commercializing novel technologies for gas separation based on modules containing carbon molecular sieve membrane (CMSM). These membranes were invented at the Israel Nuclear Research



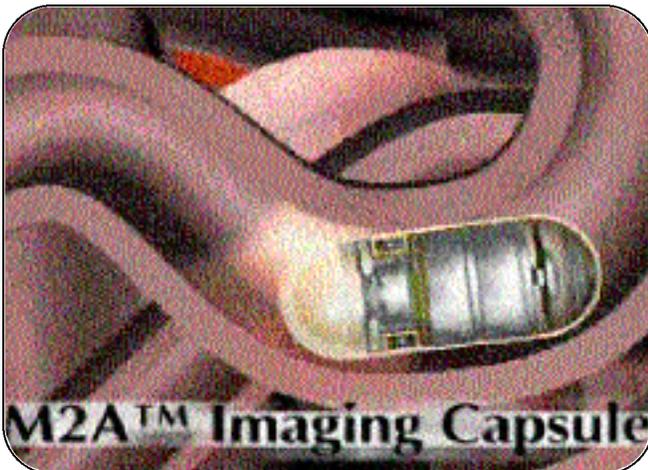


Schematic Representation of the Separation of Gases

Center - Negev and are patented. Years of research have made this technology, which began with a single fibre the size of a human hair, into a proven method for separating challenging gas mixtures. Several other patents are pending. Carbon Membrane technology is an emerging technology for gas separation and recovery and will soon enter the market with dedicated products for various gas separations. The membranes contribute economically as well as environmentally.

### ***FDA Clears Given Imaging Capsule for USA Marketing as it Prepares for IPO***

The United States Food and Drug Administration on August 1 cleared the marketing in the U.S. of a swallowable video capsule for use in diagnosing disorders in the small intestine.



The FDA noted that in a trial conducted in New York, the Given® Imaging Diagnostic System

detected physical abnormalities in 12 of 20 patients, or 60%, while push enteroscopy detected physical abnormalities in 7 of 20 patients, or 35%. In total, 14 lesions were detected in 13 of the 20 patients participating in the clinical trials using either the Given® Imaging Diagnostic System, push enteroscopy or surgical techniques. The Given® Imaging Diagnostic System detected 12 of the 14 lesions, or 86%, while push enteroscopy detected 7 of 14, or 50%.

The FDA also noted that the Given® system was able to identify sources of bleeding in five cases that were beyond the reach of the traditional enteroscope.

The trial included 20 patients with suspected small intestine disorders. All patients had previously undergone multiple gastrointestinal endoscopies and radiological procedures to identify the source of their small intestinal disorders, without a conclusive diagnosis.

#### **The Given Diagnostic Imaging System**

\*M2A™ Capsule, a patented, single-use video color-imaging capsule, which is ingested, glides smoothly through the digestive tract and is naturally excreted.

\*Given® Data Recorder worn on a belt around the waist, receives signals transmitted by the capsule through an array of sensors placed on the patient's body. While wearing the belt, users are able to continue their daily activities during the GI examination.

\*RAPID™ Workstation, equipped with Given Imaging's proprietary RAPID™ (Reporting and Processing of Images and Data) Application Software that processes the data and produces a video of the small intestine images, together with additional relevant information from the digestive tract. The RAPID™ Workstation will permit physicians to view, edit and archive the video and save individual images and short video clips.

Blair S. Lewis, M.D., associate clinical professor of medicine at Mount Sinai School of Medicine in New York and a member of Given Imaging's Medical Advisory Board, who headed the clinical trials, said, "In my study, the M2A™ capsule was able to identify pathologies in the small intestine that were not identified by standard methods. Additional diagnoses were made in some of the cases, thereby positively changing patient management. Also, because the procedure is non-invasive, patients showed a definite preference for the capsule over push enteroscopy."

### **Given Plans IPO**

Given Imaging Ltd. announced on August 22 that it has filed a draft prospectus for an Initial Public Offering of its ordinary shares in the United States through a syndicate of underwriters on a firm commitment basis. The size of the IPO is set at \$65 million for 20% of its equity. Given Imaging plans to complete the offering in 2001.

Lehman will be the lead underwriter.

Previously, physicians in France, Italy, Spain, Belgium, and Germany were the first to use Given Diagnostic Imaging Systems to painlessly visualize the entire length of patient's small intestine. As a result of the company's receiving a CE Mark, declaring the system "safe and that it performs satisfactory" which allows the company to market the M2A™ imaging capsule and system to physicians within European Union countries.

### ***TAU, Elan and American Home Products to Collaborate on Novel Approach for Alzheimer's Disease***

Tel Aviv University (TAU) announced recently that it has signed a multi-year research, license and development agreement with Elan Corporation, plc (Elan; NYSE:ELN) and American Home Products Corporation (AHP; NYSE:AHP) to collaborate on the research and

development of novel immunological approaches for the treatment and prevention of Alzheimer's disease.

The two companies have acquired co-exclusive worldwide rights to a body of technologies developed by a team of scientists at TAU led by Professor Beka Solomon of the Department of Molecular Microbiology and Biotechnology.

The University is to receive research funding for a period of five years, additional payments for the achievement of key regulatory milestones, and royalties on product sales.

A year ago the parties agreed to collaborate in research, development and commercialization of an experimental therapy called AN-1792, an immunotherapeutic approach for Alzheimer's disease that is currently in clinical trials.

Dr. Dale Schenk, Senior Vice President, Discovery Research at Elan said, "We are delighted to be collaborating with Professor Solomon, a true pioneer in the field of Alzheimer's disease research."

Tel Aviv University is Israel's largest and most diversified university. Located in Israel's cultural, financial and industrial heartland, it is a major center of teaching and research.

### ***OTI Smart Card Solution for Michael Jackson***

Michael Jackson's 30th Anniversary Celebration the "Solo Years" one of New York's forthcoming great entertainment spectacles will be held in September and top priced tickets are being sold at \$2,500

Israeli based OTI (Neuer Markt: OT5), P-Card System and Mega-Access announced the launch of the Michael Jackson Fan Card, the first card in a series of cards based on OTI, P-Card and Mega-Access's smart card solution for identification, payment and loyalty.

OTI, is a provider of microprocessor-based free of contact smart card technology and product solutions.

Members of the Michael Jackson Fan Club, run by MJ Entertainment AG, can order the contact

free multi-application smart card, which also serves as the club's membership card, from the official website. With the ability to download new applications to the card from the web site as they become available, card holders will be able to use the card for shopping and loyalty programs both online and in retail stores.

Established in 1990, OTI (On Track Innovations) designs and develops contact free microprocessor based smart card technology. Applications developed by OTI include product solutions for mass transit, parking, gas management systems, loyalty schemes, ID and secure campuses.

### ***Quark Biotech Inc. Receives Equity Investment From Taisho Pharmaceutical***

Quark Biotech Inc. (QBI), announced that Taisho Pharmaceutical Co. Ltd. of Japan has made an equity investment in the Company. The investment was made as part of QBI's financing. Financial terms were not disclosed. QBI and Taisho are currently collaborating on

#### **Smart Cards Market Penetration is Slow**

According to a recently published Yankee Group Research Note: "Although smart cards have not yet been fully embraced by consumers and merchants in the United States, smart card providers and issuers have recently launched initiatives that affirm their commitment to laying the groundwork for broader deployment. Compaq recently announced that it is incorporating Gemplus-powered smart card readers into PCs, underscoring the importance of building-in the underlying infrastructure to enable potential widespread consumer adoption.

If smart cards are to become ubiquitous, they must deliver on their potential to offer consumers enhanced security, increased convenience, and value-added applications. Currently, the value proposition to consumers has been limited and merchants have had little

scientific research projects to discover the genes that cause kidney disease and to develop a therapeutic treatment for the cause of the disease, rather than just affecting the symptoms. QBI and Taisho have already completed initial feasibility studies and achieved milestones.

"QBI is very fortunate to have a project partner such as Taisho who believes in the power of QBI's applied genomics technology to develop effective therapeutics faster," said Daniel Zurr, chief executive officer and founder of QBI.

"Taisho's research laboratories have already benefited from using QBI's applied genomics technology," said Takashi Shibata, of Taisho. "As we continue our partnership with QBI, our drug design activities will use both the biological and chemical approaches to identify possible substances that can treat kidney disease."

According to terms of the agreement, QBI will receive royalties on sales of the products developed from this collaboration, as well as milestone payments. Taisho will retain worldwide development, manufacturing and marketing rights on the products, and QBI will have an option to co-market certain products in the United States and EU countries.

Taisho has been producing prescription drugs since 1955. Today, Taisho is using cutting-edge development techniques and working together with research facilities in Japan and around the world in search of effective, innovative new drugs.

#### About Quark Biotech Inc.

QBI, founded in 1994, is an established, privately held U.S. company. It is a genomic-based drug discovery and pharmaceutical company with the expertise and proprietary technology platform to find and understand the biological functions of genes critical to virtually any disease. This leads to a unique ability to identify ideal "targets" for pharmaceutical intervention within months instead of years and hastens the development of better drugs.

QBI's broad technology platform includes library preparation methods, functional profiling, c o m p r e h e n s i v e

# How the Global Individual Investor Can Participate on Israel's High-Tech Boom

**UPDATE**

## TASE Publicly Traded Venture Capital Companies

### Results for the individual companies

**Sadot** - 37.0 %\*

**Teuza** + 13.6 %\*

**Marathon** - 44.7 %\*

**Mofet** - 4.0 %\*

**Inventech** - 68.0 %\*

**Tamir Cap** + na

\* Yields Year to Date and as of August 21, 2001



A non-Israeli company is reportedly readying to invest \$25 million in Neuromuscular Electrical Stimulation Systems (NESS) at a company value of \$250 million. NESS, in which Teuza Venture Capital Fund has a 37% share, develops and manufactures innovative systems for the rehabilitation of impairments, primarily of the hands, resulting from central nervous systems disorders.

Teuza, managed by Avi Kerbs, has invested \$4.2 million in NESS to date. The fund recently enlarged its share in NESS by 6.8%. Teuza paid for the additional holding by allocating a number of its shares to the sellers, reflecting a value of only \$40 million for NESS.

Teuza shot up 12.5%, following the company's announcement that "\$25 million will be invested in NESS, in which it has a 37% stake, in exchange for 10% of shares". The deal reflects a company value of \$250 million for NESS. Until recently, the NESS company value stood at \$40 million.

expression profiling, DNA chip technology, bioinformatic methods and algorithms, bioassays and readouts, high throughput screening of chemical libraries, pharmacogenomics, toxicogenomics and product development capabilities.

The company is engaged in a variety of research projects aimed at developing pharmaceutical products in major disease areas such as: breast cancer, bladder cancer and other solid tumors, fibrotic diseases, cardiovascular and ischemic diseases, stroke, osteoporosis, and diabetes.

QBI's global team includes more than 200 people, 100 of whom are PhDs with backgrounds in molecular and cell biology, gene discovery, signal transduction, pathology, chemistry, medicine, algorithm development and others.

QBI has additional research facilities located in Israel's Weizmann Science Park and in Chicago.

### ***Summer Time and the VC Going is Not Easy***

The VC market fought off vacations, deadly heat and market indifference to battle to complete a barely adequate week. And that could be a positive as total funding reached decent totals, (though down from preceding week's 63 deals for \$948 million). And, with global funding for July falling short of \$3 billion, the \$1.3 billion invested in August's first ten days must be interpreted as a positive sign. Perhaps the bottom of the VC market has passed.

Douglas Mintz

### ***Weizmann Researchers Raise Prospects for Preventing Total Spine Paralysis***

Israel's Weizmann Institute scientists propose an innovative approach for preventing complete paralysis after partial spinal cord injury. The approach consists of boosting the body's natural immune mechanisms to improve the outcome of trauma.

The team led by Prof. Michal Schwartz of the

Institute's Neurobiology Department has in the past developed one immune-based therapy for the spinal cord, currently being tested in humans by Proneuron Biotechnologies Ltd. That therapy is aimed at repairing the spinal cord after a complete injury. The new approach pursues a related but different therapeutic target: to limit degeneration after a partial spinal cord injury. The scientists report their latest results in the August 15 issue of the Journal of Clinical Investigation.

Following injury to the central nervous system (brain or spinal cord), a wave of damage spreads from the injury site over several days or weeks, killing nerve cells and fibers that survived the initial trauma. This secondary degeneration can be even more destructive than the initial damage. As a result, an injury that initially inflicted only partial damage on the nerve tissue in the spinal cord, may eventually result in total paralysis.

In the United States alone, approximately 10,000 people sustain a spinal cord injury each year. More than half of these injuries are classified as incomplete, or partial, meaning that some nerve fibers survived the initial trauma. If the surviving tissue could be protected against secondary degeneration, this would significantly improve the final outcome.

In the past, Prof. Schwartz and colleagues showed that autoimmune T cells -- the white blood cells of the immune system that interact with the body's own tissues -- have a protective effect on damaged tissue in the spinal cord, reducing secondary degeneration. This protective response is the body's own way of minimizing the consequences of trauma. However, the naturally occurring T-cell response is restricted in its effectiveness.

In the new study, rats were vaccinated soon after severe partial injury to the spinal cord with peptides, or protein fragments, derived from the central nervous system. The peptides were selected so that they would boost the natural protective mechanisms of the immune system

without triggering an autoimmune disease. Rats vaccinated with the peptides showed significant recovery of movement. Tissue analysis revealed that the treated animals had substantially more healthy nerve fibers in the spinal cord than the untreated rats, suggesting that the treatment protected the animals from secondary degeneration. Results indicate that the therapeutic window for T-cell-based treatment is at least one week after injury. This approach may prove effective in other disorders of the central nervous system, such as stroke or traumatic brain injury.

### ***Government Sponsored Incubators Targeted for Privatization***

Ministry of Industry and Trade Chief Scientist Carmel Vernia, is promoting a privatization plan for technology incubators, which are under the aegis of the Ministry.

Currently, 24 technology incubators operate in Israel, half of which are located in priority regions. The technology incubator program began almost ten years ago with the guidance and support of the Office of the Chief Scientist in the Ministry of Industry and Trade. The stated aim was defined as supporting projects to enable entrepreneurs with innovative technological ideas to develop them into commercial products.

Under the privatization plan, initially three to five incubators will be privatized. The aim of privatization is to create profitable companies. "Money makes the world go round; we have to turn the incubators into profit-making bodies. That's the key element in privatization", Vernia was recently quoted in a Globes, business daily interview.

The financial structure of the incubator ownership is also up for an overhaul. The incubator equity customarily is divided between the entrepreneur – 50%, the incubator - 20%, the financing institution 20%, and the employees 10%. The main change in this structure is that instead of 50%, the

entrepreneur will receive 30-70%.

The valuation of the shares, whether those of the Government or those purchased by the investor, in the future will be priced identically. The idea being to erase inequalities whereby the Government can invest \$300,000 and receive 20% while an investor may invest \$50,000 and also receive 20% of the share capital.

Recently, the Ministry of Industry and Trade announced it planned to set up a NIS 200 million fund (somewhat less than \$50 million) to support companies at the seed stage. The fund is part of the Ministry's new program to encourage economic growth. Together with private venture capital funds, the government fund will invest in various activities, including those of national strategic importance, such as biotechnology.

Statistics provided from the administrator of the incubator program reveal that of 341 incubator companies, 53% of incubator project graduates survived and are continuing as active companies. Four incubators have been closed since the project began in 1991.

### ***Pharmos Net Loss Triples on Flat Revenues***

Pharmos' (Nasdaq: PARS) financial results for the second quarter were in line with expectations.

The net loss for the second quarter of 2001 was \$2.36 million, or \$0.04 per share, in line with Wall Street estimates. In the second quarter last year, the net loss was \$849,932, or \$0.02 per share.

Revenue was \$1.48 million in the second quarter of 2001, compared with \$1.41 million in the second quarter of 2000. The increase in revenue resulted primarily from gains in market share for the company's Lotemax and Alex ophthalmic products, Pharmos said.

continued on p 12

# ISRAEL HIGH-TECH MODEL MILLENNIUM PORTFOLIO

	Quantity		Commission	Open Amount	Current Value	Gain/Loss
Millennium Portfolio						
AudioCodes Ltd.		AUDC		Price as of 8/21/2001 : 4.86		
Total:	9,350		\$0.00	\$100,073.05	\$45,441.00	(\$54,632.05)
BreezeCom						
Total:	8,300	BRZE	\$0.00	\$100,122.07	\$29,299.00	(\$70,823.07)
Check Point Software Tech						
Total:	3,450	CHKP	\$0.00	\$254,150.01	\$119,542.50	(\$134,607.51)
Comverse Technology, Inc.						
Total:	2,700	CMVT	\$0.00	\$245,870.10	\$76,950.00	(\$168,920.10)
Orbotech Ltd.						
Total:	3,000	ORBK	\$0.00	\$104,061.00	\$68,160.00	(\$35,901.00)
Precise Software						
Total:	4,300	PRSE	\$0.00	\$96,212.50	\$72,928.00	(\$23,284.50)
Retalix Ltd.						
Total:	10,200	RTLX	\$0.00	\$99,450.00	\$161,670.00	\$62,220.00
Millennium Portfolio						
			\$0.00	\$999,938.73	\$573,990.50	(\$425,948.23)

**Since the start of 2001 the Israel High-Tech Millennium Portfolio is down by 42.6% including a 19.3% fall since June 22. CheckPoint and Comverse were particularly hard hit and accounted for 16.7% of the 19.3% loss. A bright spot was the performance of Retalix whose shares advanced by 17.1%**

The ISRAEL HIGH-TECH MODEL MILLENNIUM PORTFOLIO is a simulated portfolio We accept no responsibility for investment results based on the Model Portfolio.

Pharmos attributed the larger net loss per share to increased investment in research and development. R&D expenses rose as a result of increased clinical costs in connection with the development of dexanabinol for traumatic brain injury, and higher staffing levels to intensify its research on derivatives for various central nervous system and inflammation-based conditions.

Pharmos chairman and CEO Haim Aviv, said, "We have made steady progress toward positioning the company as a leader in the sizable therapeutic marketplaces for neurological and inflammation-based disorders. Our commitment to this goal underlies the quarter and year-to-date results. The revenue stream from our ophthalmic products is helping offset the increased R&D efforts in these important areas."

Pharmos develops therapeutics to treat a range of inflammatory and neurological disorders, such as traumatic brain injury and stroke.

### **Scitex President and CEO Resigns**

Scitex Corporation Ltd. (Nasdaq: SCIX) TASE: SCIX) reports today that Yoav Z. Chelouche has announced that effective September 1, 2001 he will step down from his position of President and CEO of the Company. Chelouche will continue to advise Scitex through mid-year 2002.

Mr. Chelouche was appointed President and CEO of Scitex Corporation Ltd. in 1995 having served in different executive management positions since joining the Company in 1979.

Mr. Chelouche has been appointed Managing Partner of Fantine Europe 1 venture capital fund.. The fund, a member of the Fantine Group run by Arie Guez and Roy Ramati. The Group focuses on business development and consulting services for high-tech companies in Europe.

The fund plans to manage \$50 million in capital, and closed an initial \$25 million a month ago. The balance will be raised in 3-6 months.

The fund will focus on investments in start-ups that already have a product and are concentrating on the West European market. It will leverage Fantine connections with start-ups, venture capital funds, strategic partners and potential customers for its portfolio companies. It will also invest in IT and telecom companies, in the broadest meaning of the words, including related infrastructures and applications.

### **Surfing and Cellular Phone Usage Survey**

36% of Israeli households, or 1.9 million surfers, have access to the Internet, according to Nielsen NetRatings. The average surfing time is about 8 hours a month.

Walla!, NetVision, Yahoo, and Microsoft are Israelis' most popular sites. The site in which surfers stayed the longest was IOL Israel on line.

Nielsen NetRatings is a subsidiary of Nielsen Media Research. The company measures the surfing habits of 225,000 surfers in 27 countries. The survey group in Israel is made up of 3,000 randomly chosen people representative of Israel's population. Israel had 5.1 million cellular subscribers by the end of the second quarter.

The figure includes 500,000 foreign workers, residents of the Palestinian Authorities, and subscribers transferring between companies putting the current penetration rate is 80%.

### **BIRD Approves \$14 million in New Grants**

The Israel-US Binational Industrial Research and Development Foundation (BIRD), has approved investment of approximately \$ 12 million in 14 new projects with total budget in excess of \$ 32 million. The investments were approved at the semi-annual board meeting, held on Thursday in the US.

Among the prominent US companies participating in the projects are: The American Red Cross, Cleveland Clinic, Quintiles, Air Liquide, Archer Daniels Midland, Wind River and Netro.

# Venture Capital Leaders Express Concern over Prospects in 2001

Ze'ev Holzmann, Giza's Chairman and Matty Karp, head of Concord Ventures, have expressed concern for a return to accelerated activity while noting a 95% decline in foreign investments from the US in the first six months of this year. They estimate that for all of 2001 the Israeli VC industry will barely succeed in raising \$1.0 billion. Six month statistics announced by the IVC Research Center, revealed, that just under \$500 million has been raised by the industry in the first half of 2001.

Further notes of alarm have been sounded that American investors are putting on hold their plans to invest in Israeli funds due to concerns over the security situation.

BIRD reports that six of the approved projects, about 40% of the total number, focus on Life Sciences and Healthcare.

Two are aimed at the development of drugs for malignant diseases, such as breast cancer and nervous system degeneration diseases.

Drug development, as is well known, is an expensive and lengthy project and the BIRD Foundation has chosen to focus on its initial stages.

## ***Commitments to VC Funds Decline***

According to the latest statistics from Venture Economics and the National Venture Capital Association (NVCA), second quarter commitments to venture capital funds decreased 42% from the previous quarter, but continued to remain at healthy levels. All told, 65 U.S.-based venture capital funds raised \$9.7 billion, compared to \$16.7 billion raised by 96 funds in first quarter of 2001.

However, across the Atlantic the US VC fund raising activity was down 68% from a year ago, when venture capital enjoyed its largest quarter, with 178 funds pulling in \$30.3 billion. However, the second quarter was still significant compared with commitment totals during the past decade. While 2001 is unlikely to eclipse totals of the prior two years, it is still on target to receive the third-highest amount of capital raised since 1969. Venture Economics tracks the performance of over 1,400 US venture capital and buyout funds.

"After several years of record fundraising levels, venture capital firms intend to invest their current funds over a several-year period, taking their time to find the brightest opportunities. With fewer new funds entering the market, we can expect total fundraising to return back to sustainable levels. The positive news is that much of the capital that has been raised during the past year has yet to be deployed, leaving ample risk equity capital for those entrepreneurs that have a compelling value proposition," explained Mark G. Heesen, president of the National Venture Capital Association.

Even though deal activity has slowed in the past two months, as compared to a year ago, we report below on some prominent recent investments.

## ***OrSense Raises \$8.2 million***

Lead investor: Star Ventures

OrSense has developed a non-invasive spectroscope. This device measures multiple blood parameters such as glucose, hemoglobin, and cholesterol and eliminates the need to draw blood for these tests. The company is also developing a non-invasive daily glucose monitor for use by diabetes patients.

OrSense was founded in 1997 by Drs. Alex Sternberg and Ilya Fine. Dr. Fine remains as OrSense's CTO. Shimon Eckhouse, Chairman of the Board.

### ***Tiaris Crowns \$9,500,000 in First Round***

INVESTORS: Kodiak Venture Partners (Lead), Cedar Fund, Giza VentureTiaris builds fabless semiconductors. The company, which has now raised \$12 million since its founding in late 2000, markets system-on-chip solutions to enable residence-wide networking for the distribution of video, data and voice content. Consumers will purchase Tiaris to create at home networks solving the "last 300 feet" problem. Tiaris maintains an R&D lab in Tel Aviv, Israel. Kodiak has not previously invested in Tiaris, while Cedar Fund invested in Tiaris' seed rounds. Rami Kopelman, Founder and CEO Avi Shabtay, Vice President R & D.

### ***Celltick Technologies Picks Up \$10.0 million in Second Round***

Lead investor: Jerusalem Venture Partners joined by Elwin Capital Partners

Celltick develops streaming media solutions for wireless networks. This funding will be used to increase sales and marketing initiatives in Europe and Asia. The company has entered into trial partnerships with BT Wireless and Partner Communications.

### ***Cyber-Ark Wins Prestigious Award***

PrivateArk, a security product solution produced by Cyber-Ark Software, Ltd. has won the "Best Security Product Award" at the eighth annual Networking Industry Awards in the UK.

The company has retained Orama, a merchant bank, to manage the \$15 million second round of VC financing. Orama has committed \$2 million in this capital raising round. Cyber-Ark closed its first round of financing in July 2000, securing \$6 million from SCP, a SOFTBANK affiliate, Nomura International Plc, and Chase Capital Partners Seed Investments.

Cyber-Ark was founded in 1999 by a group of leading information security experts from the Israeli military, including Alon Cohen, President & CEO. Cyber-Ark's management and sales offices are located in Boston, MA and its R&D in

Lod, Israel.

The company employs 43 people. Cyber-Ark provides the network security and storage markets with its first specific solution.

The PrivateArk Network Vault" is software that creates an ultra secure, unified solution for most of the major security needs of enterprises.

### ***Evergreen's "Harvest" Active as a Secondary Equity Fund***

The America investment banking giant Goldman Sachs announced, as we went to press, that it has put together \$1 billion for a secondary private equity fund. That means the fund will snatch seemingly hopeless private-equity portfolios from VCs looking to raise a little cash. By selling its investment portfolio, whether a venture capital fund or a corporation which holds an investment portfolio, it gets some money back to pay its limited partners or creditors.

While this certainly constitutes a sign that the glory days are over, perhaps, unlike the others, Goldman's fund is actually a dispatch stating that the tech world is not doomed but poised for a rebound.

Israeli venture capital insiders, most recently were discussing deals of the venture capital secondary market. Evergreen Canada Israel Investments' Harvest 2 Fund, which traditionally refrains from making public announcements, was said to have closed an initial \$75 million financing round, out of a planned \$100 million.

The key difference between the private secondary market and the public capital market has always been the lack of liquidity for investments in private equity funds. In order to sell a venture capital asset, whether the portfolio of a fund about to expire, shares of a limited partner in a fund, or shares of an entrepreneur or start-up investor, a buyer must be found. According to the laws of private capital, the lack of a convenient option to realize an asset, lowers its price. Secondary funds therefore usually buy assets at a large discount on their true value. That is also the reason why most of these transactions are not announced in public.

The fact that Evergreen is succeeding to raise

substantial funds is proof of a need of private equity investors to be able to dispose of their holdings, irregardless of the reason, and that other investors that put up money for the "Harvest Fund" believe that they will be amply rewarded for judicious picking for "failed investments"

## Biotech: Rapid Growth and Attractive to Investors

### ***Ministerial Committee Recommends \$450 Mil. Biotech Investment Fund***

The team appointed by the Ministerial Committee On Science & Technology has recommended that the government needs to invest \$450m. in biotechnology, to bolster the country's leading international position in this sector. Of this amount, \$200m would be invested in a flagship project and an additional \$250m in training and laboratories. The team added that the project must be innovative and unique, involve at least 10 research teams and hundreds of workers, and represent different disciplines in which Israel has an absolute advantage. Some sectors recommended include nano-medicine, cellular applications in disease control or pharmacological imaging. The \$450m investment should be spread over five years. The report calls on the government to recognize biotech as a national priority and discusses social, scientific and commercial implications. The team further recommended that annual investments be made to create a \$5m medical research foundation, and an \$18m foundation for developing new technologies. Another \$7m should be invested in research centers, \$2m in towards regulation issues and \$18m to promote the industrialization of scientific research.

Israel's National Biotechnology Committee released its annual report on the state of the sector on 20 May, presenting its survey of the major Israeli biotech firms. According to the

results, there were 160 biotechnology companies in Israel during the past year, employing a total of 4,000 people. During 1999, there were 135 companies with 3,800 employees. Sales in the sector rose by 33% in 2000 over 1999's totals, amounting to \$800m. Under the aegis of biotechnology are included the sub-sectors of pharmaceuticals, agriculture and diagnostic systems. Sales in the pharmaceutical field accounted for 71.5% of the biotechnology sector, compared to 66.9% in 1999. Sales from agricultural products accounted for 18.3% of the sector, compared to 22.8% in 1999 and 26.5% in 1997. However, the number of companies in agricultural biotechnology grew to 54 in 2000 from 48 in 1999. Sales of medical diagnostics accounted for 4.7% of revenues, compared to 3.9% in 1999, with two new companies in this sub-sector bringing the total of firms to 35 in 2000. There were 25 bio-tech start-ups in 2000, up 16 from 1999, with all of the new entities in the medical sector.

### **Investments in Biotech Industry Grow**

In the first six months of 2001 investments in biotech companies totaled \$130 million, a growth of 54% over the similar period in 2000, (\$87 million) and nearly double the amount in biotechnology the first half of 1999. D-Pharm and Quark Biotech and a third firm are expected to close financing rounds and by the end of September, raising the 2001 total financing to \$185 million.

### ***Israel Team Grows Heart Cells From Human Embryonic Stem Cells***

Since the isolation of human embryonic stem cells three years ago, scientists have been excited about the prospect of using these cells to produce all the different types of tissues in our body, such as heart tissue to repair damaged hearts. Now researchers at Haifa's Technion-Israel Institute of Technology have for the first time succeeded in growing the precursors of heart cells from human embryonic stem cells.

While other researchers recently reported on the use of stem cells from bone marrow to repair the hearts in mice, the research at the Israel Institute of Technology is a step forward in two important ways. It is the first time that human, as opposed to mouse stem cells have been induced to form proto-heart cells. In addition, it is the first time that human embryonic stem cells have been made to differentiate into heart cell tissue. In addition, the techniques developed could produce other types of human tissue. The next step in moving towards clinical applications, such as injecting these cells into damaged human hearts, is to significantly increase the number of cells produced. To do this, the Technion-Israel Institute of Technology team is experimenting with different combinations of growth factors. The Technion-Israel Institute of Technology is Israel's leading scientific and technological center for applied research and education. It commands a worldwide reputation for its pioneering work in computer science, biotechnology, water-resource management, materials engineering, aerospace and medicine.

### ***Studying Growth Factors in Differentiation of Stem Cells***

While supporters of research of the embryo technology of cell lines point out that the embryos used in such research are left over from IN VITRO fertilisation, and are otherwise bound for the bin, the fact remains that embryos are destroyed in the production of ES cells.

The process is fairly simple: at five or six days old, embryos consist of two cell types: an outer layer that will go on to form the placenta, and up to 200 cells in an inner mass, that will become the organism, and which is the source of stem cells.

Once the inner cells have been isolated, they cannot regenerate the outer layer, and have therefore lost their chance of life outside the laboratory. Left in a test tube, however, with the right mix of biochemical growth factors and a few other treats, they will turn into "pluripotent" ES cells-- cells that can develop into a wide variety

of specialised tissue types.

However, as Benjamin Reubinoff, of Hadassah University Hospital in Jerusalem, points out, the work only gets harder after that. The first problem is the tendency of ES cells to throw off their original uncommitted state, and settle down to becoming specific cell types. That is not surprising, given that this is what they will do naturally as an embryo develops. Since the presence of free-wheeling embryonic stem cells in a later fetus, or indeed in fully fledged offspring, can cause tumours known as teratomas. But the result can be difficulty in cultivating the large numbers of the cells needed for experiments.

Dr Reubinoff and his colleagues in Australia, Singapore and the Netherlands have therefore been busy identifying the growth factors and genes that appear to be involved in the differentiation process. And such information will come in handy when dealing with the second technical problem: how to push human ES cells into becoming pure populations of, say, dopamine-producing nerve cells to treat Parkinson's disease, which is associated with a lack of this particular brain chemical.

Researchers are aiming to produce cell cultures of potential clinical relevance and are happy when identifying relevant ones. At this stage they have little control over what sort of cells their human ES cell cultures become.

The Staff of the Israel High-Tech & Investment Report extend our best wishes for the New Year. Our fervent hopes are that the New Year will usher in a time of Peace.