

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES

JOSEPH MORGENSTERN, EDITOR

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## From the Editor's Desk

### Business Investment and the power of faith

Before first entering this Land of Milk and Honey, the Israelites sent ahead scouts to spy out the country. Because the nation foolishly chose to consider only the negative aspects of the scouts report, an entire generation was sentenced to wander and die in the desert.

Ever since the Jews began to return to their Land at the start of this century, they have been careful to avoid making the same mistake. Nonetheless, now that the nation is ready to open its doors to foreign investors, the same doubts are again being met and must again be overcome. Yes, of course there are problems and risks -- many common to businesses everywhere in the world, and some peculiar to doing business with Israelis. But the rewards can be found nowhere else.

Whichever party or parties end up forming Israel's next government, all agree that what is good for Israeli business is good for Israel. It's no surprise, therefore, that so many resources are being devoted to showing off the land to scouts from around the world. Last month, several hundred businessmen, lawyers, accountants and investors gathered here to "spy out the land" and its business opportunities and relationships.

On the Israeli side, the business community was seeking not only new ties, but hoped to attract investment. Under the auspices of the Forum organization, the Third Annual Business Conference thus exposed visitors from the United States, Europe and other parts of the world to various areas of Israeli business.

At a get together with a group of visitors in Kiryat Weizmann (one of Israel's meccas of high-technology), representatives of six leading biotechnology companies in Israel shared some keen insights as to the advantages of doing business with Israelis.

InterPharm Laboratories is Israel's premier biotechnology company, with 300 employees. Gabriel Meron, an InterPharm manager, kept hitting the nail on the head in citing comparative advantages in Israel. Key among these: the availability of world-class scientists whose cost is competitive; a can-do culture which means a willingness to try new approaches; physicians willing to try new methods even though devices or pharmaceuticals have not received formal approval; experience in moving quickly to market; and the global mindedness and mobility of Israelis, who need to reach out to distant markets due to the smallness of the home front.

Mr. Meron championed the model of InterPharm, which pioneered certain aspects of interferon, but left the marketing to its corporate parent, Swiss-based Ares-Serono. InterPharm champions this corporate arrangement, but Haim Aviv, founder of Biotechnology General and Pharmos, differed as to the best model for the Israeli biotechnology industry. The Aviv Formula is to do it all on your own -- innovate, produce the product and, most importantly, open lines of capital from outside the country.

BTG has invested about \$120 million in research and development, and at times nearly ran out of money, though it expects to earn profits for the first time in 1992.

InterPharm is very profitable.

InterPharm, Biotechnology General and Pharmos account for just over 50% of the 1,000

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### In this Issue

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From the Editor's desk: Business Investment and the power of faith

U.S. Ambassador William Harrup on sharing space information  
From Basic Research to Applied Research to the Market  
Israeli Companies on Wall Street -- Buying into new markets and investing for strategic purposes  
Entrepreneurship: a conference report

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biotechnology employees in the country, and together with Orgenics and RAD Chemicals account for more than half of the sectors \$80 million in sales. The companies have proved they can innovate, and in some instances very rapidly move products from lab to market.

*There are a number of factors which may positively affect the foreseeable future. Among these are the prospects for improved Israeli-U.S. cooperation. The peace process already in action removes one of the principal barriers to the quick growth of a vibrant high-tech sector with already visible achievements.*

Spring and summer are the seasons for international conferences. This year's schedule is packed, and conference subjects cover such diverse fields as new anti-epileptic drugs, nephrology, medical engineering, clinical neurophysiology and software.

One conference which already stands out for its importance to the Israeli business community, and especially the high-tech sector, was titled Entrepreneurship: Israel's Engine in the Global Race. Participants flew in from the U.S. and the Far East, and the gathering attracted some of the leading individuals in academia and the private sector. The one-day affair brought some fascinating comments from the participants, including a Nobel laureate, the Governor of the Bank of Israel, captains of smart industries and venture capitalists.

A special conference report appears in this issue.

#### AMERICAN ASTRONAUT VISITS ISRAEL

**Dr. William Thornton:** "Man is trivial in outer space." Israel can "tack on" to major international space programs by intelligent use of its limited resources. Thorn predicted that space stations will go up before the end of the century, and will serve as jumping-off points for travel to other planets.

There is a gap in technology, he said, and a need to integrate the studies of human reactions in space. An example has been the study of the loss of calcium after long periods of weightlessness. The experience has been that such physiological changes which occur in space are reversible.

"Both men and machines will go into space"

**US Ambassador William Harrup:** With the end of the Cold War, there is no longer a need for international competition in space. Money and resources can be saved by sharing information, he said.

Harrup urged greater cooperation in the sharing of data derived from Israel's space program.

**Dr. Akiva Bar Nun, Director of the Israel Space Agency:** Ofek -III, Israel's newest satellite, represents a further step in refinement by being stabilized on three axis.

**Noah Brosch on TAUVEK:** One of the aims of the satellite project will be to study radiation from astronomic sources.

Components of the satellite will include a launcher, a platform, and a \$10 million scientific payload (TAUVEK).

Denmark, which is leading a consortium to develop commercial satellites, has convinced its partners to include the Israeli platform, which is being built by the Russians. The commercial satellite program is valued at \$20 billion.

#### EYE DRUG APPROVAL

According to Bio-Technology General Corporation the Israel Ministry of Health has approved its ophthalmic hyaluronic acid product, BioLon.

Prepared in a ready-to-use syringe, the product helps to retain the shape of the dye during surgical procedures of the eye for cataract removal, intraocular lens implantation, corneal transplantation and glaucoma filtration. Product sales in Israel are expected within the next few months.

#### UNIVERSITIES AND POLITICS

Israeli politicians appear disinterested in exploiting the great talent of the country's young researchers.

"In today's world, a nation's standing depends on its intellectual, not its natural resources," said Prof. Haim Harari, President of the Weizmann Institute.

#### BEN-GURION HELPS NASA

Nasa scientists joined Ben-Gurion University's Remote Sensing Laboratory of the Blaustein Institute for Desert Research to help calibrate a satellite for earth observation, to be launched by the US towards the end of this decade.

Remote sensing enables researchers to analyze features of the earth's surface or atmosphere, mainly by use of digital data. Dust and aerosols interfere with the quality of satellite images, however, and studies are ongoing to minimize their effect.

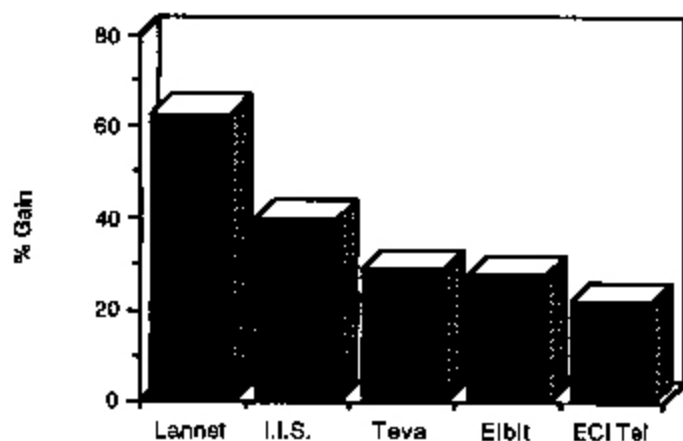
Research projects using the laboratory's sensing techniques include monitoring of conditions in the Negev desert, examination of Israeli coastal sediments, detecting water shortages in plants, determining the quality of Israeli inland water sources, and locating sources of nonrenewable fossil water.

## Israeli Companies on Wall Street

### Buying into new markets and investing for strategic purposes

In 1991, some of the publicly traded Israeli companies on Wall Street raised fresh capital through the sale of shares. ECI Telecom, Elron, Teva, Elscint, Elbit, Eshed Robotec, Lannet, Teledata, Magic and Sapiens were prominent in this respect. As the year progresses, it is expected that the more mature firms will use the moneys for corporate acquisitions or strategic partnerships.

Teva Pharmaceutical has invested in 30% of the share capital of one of Hungary's five largest pharmaceutical companies for approximately \$17 million. This deal may eventually also involve a large western pharmaceutical company, which will team up with Teva. The Hungarian firm, with annual sales of \$120 million, sells primarily within its own country, as Teva did for many years. By this deal Teva has guaranteed itself a seat in the European arena at a nominal cost.



Large Capitalization Winners

An innovative investment deal by Elron Electronic Industries in the equity of California-based WordStar International will see the formation of an Israeli-based subsidiary which will use Israel's growing strength in the software development industry to combine with outsiders and create marketing networks and joint ventures with international distribution capabilities. WordStar supplies software for DOS, Windows and general-purpose utilities, including those for Apple's Macintosh products.

WordStar's new President, Robert Posner, is said to be impressed with Israeli software capability.

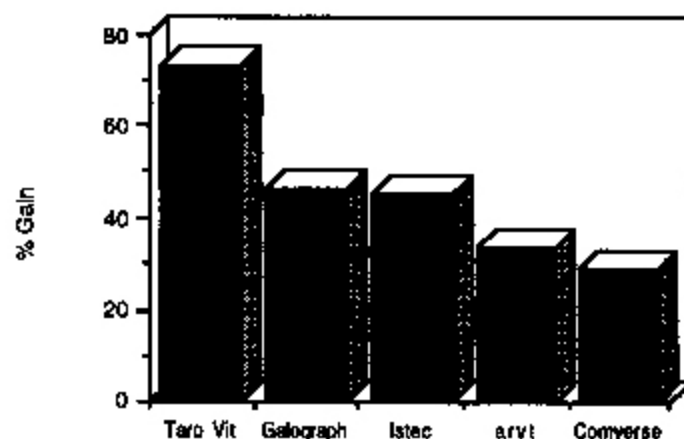
The initial Elron investment in WordStar is \$2.0 million for 6% of WordStar's equity, with various

options which would allow Elron to acquire up to 25% of WordStar.

There are market rumors that Elscint is also involved in an investment negotiation.

Eshed Robotec is another company seeking ways to improve its business position by investing capital raised last year.

Scitex has also been spending funds on acquiring product lines from Ricoh, and has recently bought into a company with complementary business lines.



Small Capitalization Winners

### Marginalla

Laser Industries clearly has passed its worst period, which included heavy losses in 1990-1991. In the first quarter of 1992, the company was in the black, with a \$40,000 profit on sales of \$7 million. The United States is traditionally Laser's major market, but recessionary conditions there and heavy competition made for hard times. A \$2 million contract for the supply of Laser's new surgical lasers to Mexican hospitals has been called a major achievement in entering the Central American market.

The Charles Bronfman group proved that investing in Israeli companies is highly profitable when it sold 1.2 million Teva Pharmaceutical shares for between \$23-\$25. The Bronfmans invested in Teva less than five years ago, and have made millions in capital gains on its holdings in Teva and ECI Telecom. The Teva shares were reportedly sold by Shearson American Express to institutional investors.

Israelis, after the new liberalization of foreign currency regulations, will be able to invest in equities and mutual funds listed on major foreign exchanges. Until now, they could invest only in shares listed on the Tel Aviv Stock Exchange or in the shares of Israeli companies on Wall Street.

Continued on page 8

# ENTREPRENEURSHIP

The David and Anne Warsaw Entrepreneurial Center

Business and academic experts from Israel and abroad shared ideas at a conference titled "Entrepreneurship: Israel's Engine in the Global Race," May 14, 1992, at Tel Aviv University.

The conference was the inaugural event of the David and Anne Warsaw Entrepreneurial Center at the University's Leon Recanati Graduate School of Business Administration.

Guests of honor were Moshe Nissim, Deputy Prime Minister and Minister of Industry and Trade; and Professor Lawrence Klein, Nobel Laureate in Economics, of the Wharton School, University of Pennsylvania.

The conference, planned as the first of many such gatherings, provided the entrepreneurial community in Israel with a forum for the exchange of ideas. Discussion focused on global entrepreneurship, particularly in high-technology industries. Presentations by entrepreneurs, academic specialists, venture capitalists and public figures conveyed the latest practical knowhow as well as cumulative experience, both globally and locally.

## Discussion subjects

Discussions were organized around six topics:

- Entrepreneurship – The engine for macro-economic growth in Israel.
- David and Goliath: independent startups in the global village.
- The King Solomon model: global cooperation to exploit relative advantage.
- Using capital to maximize value.
- Keeping the entrepreneurial spirit alive in large companies.
- Regional economic development, innovation centers, incubators, and their roles in commercial development and RandD.

Speakers at the opening session were Professor Yoram Dinstein, President of Tel Aviv University;

Professor Niv Ahituv, Dean of the Recanati School; David Warsaw, Founder of the Warsaw Center; and Professor Edward Shils of the Wharton School, Chairman of the Warsaw Center Steering Committee.

## Talking business

*A sampling of comments by speakers at the inaugural conference of the David and Anne Warsaw Entrepreneurial Center:*

### Professor Lawrence Klein:

The world is in a global economic slump. Unlike past slumps, the current one is unsynchronized. It began with the English-speaking countries, mostly resulting from monetary policies aimed at restraining inflation. Japan and Germany only recently entered the slump.

Other factors responsible: excessive national debts and unethical behavior in corporate and personal business activities.

Eastern Europe after the dissolution of the USSR is restructuring its economies. "The world is on a binge," and the key trends are political liberalization and privatization. "The world should be emerging from the slump in 1994-1995."

Suggested goals for the Israel economy: growth of 4-8% in the Gross National Product, single-digit inflation, unemployment of less than 5%. (If the GNP growth is achieved, per-capita growth in GNP will appear restrained because of population growth from immigration.)

Citing a United Nations report on human development, life expectancy in Israel, at 75, is one of the highest in the world;

Gross Domestic Product per capita, at \$10,500, is half of that for Americans.

Key statistical comparisons: Israel's total exports-imports stand at 50% of GNP.

Planners should seek to have the Export-Import total exceed GNP.

**Moshe Nissim:**

On government support for investment and the creation of jobs: "In 1991, the government created 100,000 new jobs. We continue to support and encourage economic growth. I favor grants for investors. The mass immigration that has taken place creates the opportunity for further economic structural changes."

On Israel as a magnet for foreign companies: Intel will invest \$180 million; Vishay, \$40 million; Motorola, \$30 million.

**Frederick Adler:**

"Raising money by selling stock issues in the US is not difficult in times of rising stock and low interest rates." Suggestion: Israeli companies should get their money while they can.

"A strong capital industry is needed in Israel. Venture capital must be available at all times."

**Efi Arazi:**

"Try the Silicon-Valley approach of brainstorming in groups to develop new ideas and schemes. Then apply market orientation."

"If you start an enterprise built on an idea you read about in the magazines, you are already behind the times."

**Haim Aviv:**

"A bridge is needed between technology and the marketplace. Biotechnology companies (compared to other hi-tech endeavors) are different in that, to succeed, they must be built on a broad technical base."

**Yigal Erlich:**

"It is a mixed blessing, but the [government of Israel] is Israel's major venture capitalist." (Estimated 1992 government budget for funding research and development: \$180 million.)

On the consistency of his office's activities: "We continue to support industries which export and boost employment." On supportiveness: "We invested in companies even when they were in trouble."

**Aryeh Finegold:**

"Israel may be the last of the bolshevik states. You may need to install your own generator system, and Israeli engineers, after adding 40% to their salaries to cover social benefits, may not be as inexpensive as we think, but Israel still has the

best people. That's why I came here to start up business."

**Jacob Frenkel:**

On investing in government-owned research: "The private investor will never compete against the government. Therefore he will always under-invest in areas in which the government invests. The government's role is to invest and develop infrastructure."

On government budgets and immigration: "If immigration is running high, there is a justification for higher budget deficits. If immigration falters, there is a rationale for reducing budget deficits and applying the funds to investment."

**Dov Frohman:**

"We have many development successes, but few business successes."

On the strength of Israel's work force: "The Gulf War experience was proof that under the worst of circumstances, one can maintain production."

"A major plus for Israel is the current peace process. Some limitations are political stability, lack of a tradition of entrepreneurship, an expensive infrastructure and labor corporations which are not practical."

**Uzia Gall:**

On entrepreneurial qualities: "There is always a person involved in success. A leader is one who does things right; a manager does the right thing."

**Jonathan Kolber:**

On successful investments in Israeli companies made by the Bronfman Group: "We are classical investors, and use value criteria when investing in Israeli companies."

**Yaacov Sheinin:**

A critical view: "Excessive profit margins work against economic expansion and against the entrepreneur."

On attracting more investment: "Infrastructure expansion should include more roads and better electricity. Every house over eight floors currently must have a generator."

On labor mobility: "The country should be connected by roads so that it is one state. People should live where it is cheapest and have good roads to take them to their workplace, rather than expect to bring the workplace to where they live."

**Dan Tolkowsky:**

On the results of eight years of venture-capital investing in Israel:

"Each dollar we invested in Israel attracted two additional dollars from overseas."

**David Warsaw:**

"Look eastward to learn about productivity."

**Felix Zandman:**

On choosing where to establish manufacturing plants: "Vishay seeks to invest in low-cost, low-tax areas, and to establish manufacturing facilities where we sell."

Vishay's experience: "Germany has low taxes but high labor costs, Mexico has low labor costs and medium tax liabilities. Israel has high labor costs and no tax liability. We are preparing to open our

third plant in Israel in Dimona, and plan to employ 500-800 people."

On the government of Israel: "I have no quarrel with bureaucracy. A plus in Israel is the availability of people who are becoming more productive."

**Lior Bregman:**

"Teva Pharmaceutical and Lannet, which recently sold shares in the US, are good examples of companies whose business strategy was to raise capital overseas."

On how Wall Street views Israeli shares: "Israel is seen as a technology base, but we also feel that institutional investors should be looking at some of the companies whose shares are listed on the Tel Aviv Stock Exchange."

## Discussion participants

**Professor Yoram Dinstein**, President, Tel Aviv University.

**Mr. David Warsaw**, Founder of the Warsaw Center.

**Professor Niv Ahituv**, Dean, Faculty of Management, Tel Aviv University.

**Professor Edward Shils**, The Wharton School, University of Pennsylvania.

**Professor Lawrence Klein**, Nobel Laureate (Economics), Professor of Economics and Finance, The Wharton School, University of Pennsylvania.

**Mr. Moshe Nissim**, Deputy Prime Minister and Minister of Trade and Industry.

**Professor Yaakov Frenkel**, Governor, Bank of Israel.

**Dr. Yacov Sheinin**, Founder and Director, Modelim Kalkalim Ltd.

**Mr. Eli Arazi**, Founder of Scitex and EFI.

**Professor Haim Aviv**, President Pharms Ltd.; and Founder, BTG.

**Dr. Shlomo Barak**, Founder and President, Optrotech.

**Mr. Uzia Gatil**, Founder, President, Chairman and CEO Elron Electronic Industries Ltd.

**Mr. Zohar Zisapel**, Founder and Managing Director, Rad Data Communications Ltd.

**Dr. Felix Zandman**, Chairman and CEO, Vishay Intertechnologies, USA.

**Professor Dov Frohman**, Vice President, Microcomputer Component Group and General Manager, Intel Israel.

**Dr. Yoram Karmon**, President, Interpharm Laboratories Vice President Operations, Biotechnology Products, the Ares-Serono Group.

**Mr. Aryeh Finegold**, President Mercury Ltd.; Founder, Daisy Inc.

**Mr. Fredrick Adler**, Fulbright and Jaworski law firm, and Managing Director, Adler and Company, USA

**Dr. Micha Angel**, Director and Senior Manager, Discount Investment Corporation Ltd.

**Dr. Yigal Erlich**, Chief Scientist, Ministry of Industry and Trade.

**Mr. Jonathan Kolber**, President, Claridge Israel Inc.

**Generat (Res.) Dan Tolkovsky**, Tolkovsky Associates.

**Mr. Elisha Yanay**, General Manager, Motorola Communications Israel Ltd and Vice President, Motorola Communications International Inc.

**Mr. Eli Hurvitz**, President, Teva Pharmaceutical Industries.

**Mr. Leonard Bisk**, Marketing and Management Consultant.

**Brigadier General (Res.) Miel Dori**.

**Mr. Moshe Shamir**, President, Vishay (Israel) Ltd.

**Mr. Isaac Kaul**, President and General Manager, Bezek, Israel Telecommunications Corp. Ltd.

**Mr. Lior Bregman**, Equity Offering Department, Oppenheimer and Co.

## The David and Anne Warsaw Entrepreneurial Center

### Goals and objectives

The Center's long-range goal is to promote a better understanding of entrepreneurship, its role in the economy, and its potential for growth in Israel.

Activities of the Center will evolve around research, education, and business outreach.

### Research

The Center's academic committee has approved grants for four research proposals:

- Dr. Moshe Givon: "Diffusion of Non-Durables and Penetration Strategy".
- Dr. Shlomo Kalish and Dr. Boaz Ronen: "Entrepreneurship by Constraints".
- Professor Eitan Muller: "Entrepreneurial Activity and Venture Investment: Empirical Issues" (jointly with Professor Raphael Amit of the University of British Columbia).
- Professor Yair Tauman: "Innovations in Multi-attribute Products".

### Education

A course in "Management Education for New Immigrants with Entrepreneurial Potential" provides three months of academic study in management, economics and entrepreneurship, followed by three months of practical training with sponsoring firms. The course, beginning in June 1992, is financed mainly by the Ministry of Labor.

"Business within Business," offered for the first time in the 1992 February-May term, deals with entrepreneurial activities inside large companies. It is intended for middle to senior managers, who study "intrapreneurship" with a leading team of the Recanati School of Business Administration and prepare business plans for projects they bring with them. Participants in the first course included management teams from major hospitals, the Bezeq telecommunications company, the Soreq Nuclear Center, Ormat, Tambour and Cubital, as well as a group of senior officers retiring from army service.

### Business outreach

#### IDB Project.

The Center, in collaboration with the Yahel Foundation and the Ideas Promotion Center (IPC) of the Ministry of Industry and Trade, is conducting a program to promote new business ventures. The program has four stages – screening of ideas, business planning, financing and tracking. IPC has contributed half of the operating funds, with the other half coming from the Yahel Foundation and Tel Aviv University.

#### Nesher Project.

The Center has opened a consulting office at Nesher, near Haifa, with the aim of bringing new businesses to the town. Nesher is the site of a Jewish Agency project which calls for the building of 4,000 new apartments in a three-year period.

#### Entrepreneurship Conference.

The Center held its Inaugural Conference on May 14, 1992, with the aim of providing a forum for the entrepreneurial community in Israel. The conference focused on global entrepreneurship, particularly in high-tech industries.

### Director

Professor Eitan Muller

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Daniel Doron, Center for Social and Economic Advancement.  
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Uziah Galil, President, Elron.  
Dr. Ehud Geller, The Manufacturers' Association.  
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Sami Segol, General Director, Keter.  
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Professor Edward Shils, The Wharton School, University of Pennsylvania.  
Sar-Shalom Shiran, Ofran.  
Gideon Tolkowsky, Tolkowsky and Co.  
Dr. Yehoshua Tsal, Faculty of Management, Tel Aviv University.  
Professor Jehiel Zif, Faculty of Management, Tel Aviv University.

*Reprinted from the "Israel High-Tech and Investment Report"*

**Profit and Loss Reports**

Taro-Vit, with a two-legged base in Israel and Canada, reported a profit margin of under 10% in the first quarter, when it sold products of \$5.7 million.

Optrotech continues to be affected by high expenses in new product development and a soft market in the American printed circuit industry, the company's leading customer.

**Optrotech quarterly report**

	1992	1991
Sales	\$18.46 mil	\$9.49 mil
Net income	(\$1.6) mil	\$126,000

**I.I.S. Intelligent Information Systems quarterly report**

	1992	1991
Sales	\$10.26 mil	\$9.83 mil
Net income	\$ 1.37 mil	\$1.12 mil

**Sigma PCM**

Professor Dan Galai may well be the first Israeli to maintain his academic standing while crossing the line into the world of finance. He has assumed the position of director of research at the newly formed Sigma PCM.

Prof. Galai gained international standing when, at the University of Chicago, he came up with an original method for evaluating options. This background could provide Sigma with a unique advantage for its securities management and trading activities, as later this year Israel's futures and options market is expected to move into high gear.

Sigma has developed what appears to be one of the best computerized data banks and rating systems available for Israeli securities.

**Attempting to stop AIDS before it starts**

Prof. Yael Teitz of TAU's Sackler School of Medicine has been working, for eight years on a unique approach to isolate compounds that will inhibit retroviruses, which include leukemia, carcinoma and sarcoma-causing viruses, and the HIV strains responsible for AIDS.

While other scientists are working on AZT, which inhibits retroviruses at the stage of nucleic acid synthesis, Prof. Teitz and her team of researchers and laboratory technicians is studying thiosemicarbazone derivative compounds (TSC) that will inhibit HIV at the stage of viral protein synthesis.

Synthesizing some 30 TSCs has provided several positive results which have been patented.

**Why not natural products against AIDS?**

A search is on by TAU researchers for novel Red Sea marine products to inhibit the HIV virus. Biological inhibition studies are first carried out *in vitro* with purified HIV-1 and HIV-2 reverse transcriptases and integration systems.

The most potent and specific compounds are being analyzed in tissue cultures for their anti-HIV effects and cytotoxicity.

**Laser & optical fibers for less invasive surgery**

A variety of experiments are underway in Prof. Abraham Katzir's Applied Physics Group at the Raymond and Beverly Sackler Faculty of Exact Sciences. The physicists, engineers and physicians there have produced a fibre, extruded from pure silver halide crystals, which has proved successful in pre-clinical experiments performed in cooperation with hospital research departments affiliated with Tel Aviv University.

The optical fibers will eventually be useful in gynecology, urology, neurosurgery, cardiology and oncology - for brain tumors, blockages in coronary arteries, and adhesions in Fallopian tubes.

**Anticancer potential of opiates**

Prof. Zvi Fogel and Dr. Jacob Barf of the Weizmann Institute's Department of Neurobiology, in cooperation with the St. Louis University School of Medicine, are studying the effect of opiates on cell reproduction. It has been shown that opiates taken by pregnant women repress DNA production in the fetal brain. The researchers discovered that two of the three known types of opiate receptors in brain cells impede a key step in the transmission of intercellular messages (phosphoinositol signal transduction) which are linked to DNA synthesis.

It is possible that this capacity is what enables opiates to inhibit DNA synthesis during brain development.

It is hoped that this information may lead to the discovery of drugs similarly capable, but aimed at repressing the spread of malignant cells such as

*Continued on page 10*



**Israeli-Related Companies Publicly Traded in the United States\***  
June 15, 1992

Ticker Symbol	Company Name	Marketplace	Mkt. Value (\$mil)	Latest 4 Qtrs.					Shareholders' Equity	Year to Date Stock Performance			
				Sales (\$mil)	Price/Earnings	Price/Sales	Price/Book	Profit Margin		High	Low	Close	% Chg
1 AIP	Amer Israeli Paper Mls -Ord	AMEX	186.9	281.7	14.0	0.7	1.5	4.7	123.0	52.50	40.75	49.13	21.3
2 AIS.A	Ampal American Israel -CI A	AMEX	70.6	67.0	18.3	1.7	0.8	9.3	114.5	5.88	3.25	4.75	23.3
3 ARYTF	Aryt Optronics Ltd	NASDAQ	9.5	NA	NE	NA	NA	NA	NA	1.63	0.88	1.88	33.3
4 BTGC	Bio Technology General Corp	NASDAQ	162.1	5.4	NE	26.7	5.3	NM	30.6	11.75	5.38	6.38	-15.9
5 BVRTF	BVR Technologies Ltd	NASDAQ	30.7	NA	NA	NA	NA	NA	NA	NA	NA	6.25	NA
6 KML	Carmel Container Sys -Ord	AMEX	17.0	80.8	13.0	0.2	NA	1.6	12.7	7.38	5.38	6.75	12.0
7 CMVT	Comverse Technology Inc	NASDAQ	116.2	22.9	78.1	5.0	6.5	11.1	16.6	1.47	0.56	0.78	29.0
8 DSSI	Defense Software And Systems Inc	NASDAQ/NMS	11.1	NA	NA	NA	NA	NA	NA	13.75	9.00	8.00	NA
9 ECILF	ECI Telecommunications -Ord	NASDAQ/NMS	801.9	127.7	28.0	6.0	6.8	24.3	121.4	30.75	22.63	25.38	22.1
10 ELBTF	Elbit Computers Ltd -Ord	NASDAQ/NMS	525.4	422.2	14.3	1.2	2.8	8.5	186.6	33.00	24.25	30.75	27.6
11 EIF	Electrochemical Indus Frutar	AMEX	40.9	116.4	58.3	0.4	1.1	0.5	38.7	2.00	1.31	1.75	34.8
12 ELRNF	Elron Electronic Inds -Ord	NASDAQ/NMS	267.4	0.0	11.5	3.5	2.6	25.9	141.3	19.50	14.38	15.38	4.9
13 ELT	Elscent Ltd -Ord	NYSE	382.4	197.0	20.8	1.9	4.0	9.1	99.2	6.00	4.75	5.00	13.2
14 ROBOF	Eshed Robotec	NASDAQ	29.2	9.3	12.8	3.0	3.2	22.7	9.5	4.13	2.75	3.06	18.6
15 ETZ	Etz Lavud Ltd -Ord	AMEX	26.2	102.7	6.0	0.2	1.3	3.9	19.0	11.50	6.63	7.50	-8.3
16 FBRX	Fibronics International Inc	NASDAQ/NMS	33.4	52.6	NE	0.6	1.5	-11.9	21.8	10.88	4.88	5.25	-24.1
17 FMSI	Fidelity Medical Inc	NASDAQ	16.5	NA	NA	NA	NA	NA	NA	12.25	3.25	3.25	-67.0
18 GALAF	Galagraph Ltd -Ord	NASDAQ	18.5	0.9	NE	15.5	129.4	-134.6	0.1	1.63	0.97	1.81	46.0
19 GOTK	Geotek Industries Inc	NASDAQ	15.0	40.8	NE	0.3	0.8	-0.3	15.8	2.44	1.63	2.25	5.1
20 HCTLF	Healthcare Technologies Ltd	NASDAQ	12.2	2.7	NE	3.3	3.7	-27.0	1.7	2.06	1.25	1.50	12.2
21 IDANF	Idan Software Ind Isi Ltd	NASDAQ	7.1	0.0	NE	340.4	5.6	NM	1.3	1.44	0.69	1.13	30.8
22 IICR	IIC Industries Inc	NASDAQ	34.2	3.1	14.9	11.1	0.6	74.6	57.0	25.00	20.50	24.00	0.0
23 IISLF	IIS Intelligent Info -Ord	NASDAQ/NMS	95.1	44.4	16.0	2.2	3.8	13.4	26.5	27.25	17.75	23.25	40.0
24 IPLLF	Interpharm Labs Ltd -Ord	NASDAQ	173.7	35.2	40.6	4.9	10.5	12.1	16.4	56.00	31.50	27.63	-23.9
25 ILDCY	Israel Ld Dev Ltd	NASDAQ/NMS	268.5	49.6	56.0	1.8	0.8	2.8	88.2	13.00	9.00	11.75	-4.7
26 ISTEf	Istec Industries & Tech Ltd	NASDAQ	7.0	0.0	NE	NA	7.5	NA	0.9	1.75	0.81	1.44	44.8
27 LANTF	Lannet Data Communications	NASDAQ/NMS	292.8	NA	NE	NA	NA	NA	NA	29.75	16.50	27.25	62.6
28 LAS	Laser Industries Ltd -Ord	AMEX	19.2	29.6	NE	0.6	18.5	-0.0	1.0	5.75	3.38	3.63	20.7
29 MGICF	Magic Software Ent Ltd -Ord	NASDAQ	28.6	NA	NA	NA	NA	NA	NA	10.00	7.50	8.00	19.4
30 OPTKF	Optrotech Ltd -Ord	NASDAQ/NMS	41.0	70.7	NE	0.6	1.1	-0.4	33.6	16.63	6.63	6.25	-47.2
31 OSHSF	Oshap Technologies Ltd	NASDAQ	26.7	40.6	25.0	0.6	2.1	2.5	15.0	5.63	3.88	4.00	-5.4
32 IEC	Pec Israel Economic Corp	AMEX	269.7	21.8	10.2	10.4	1.1	101.8	205.9	21.25	15.00	14.38	0.0
33 RADIF	Rada Electronic Inds	NASDAQ/NMS	23.3	26.5	41.1	0.8	1.8	2.2	11.3	8.25	5.63	5.75	-17.7
34 SCIXF	Scitex Corp Ltd -Ord	NASDAQ/NMS	1,435.9	450.4	12.4	2.8	3.9	22.8	346.8	44.13	34.88	34.13	9.9
35 SPILF	Spi Susp & Parts Inds -Ord	NASDAQ	1.7	22.6	2.5	0.1	0.2	2.9	8.2	1.13	0.25	0.50	-42.9
36 TAROF	Taro Vit Inds Ltd	NASDAQ	82.5	NA	NA	NA	NA	NA	NA	13.25	5.88	9.50	73.2
37 TEVIY	Teva Pharm Inds -Adr	NASDAQ/NMS	587.0	333.1	24.6	1.7	3.5	7.2	185.6	28.38	16.50	24.13	29.1
Total			6,166.7	2,657.7									

\*U.S. registered securities with critical mass in Israel. NA= not available, NE= negative earnings NM=not meaningful

Source: FactSet Data Systems Inc. Provided as a courtesy to the Israel High-Tech Investment Report by the American Stock Exchange.

occur in intestinal, lung and breast cancers. These cells have opiate receptors on their surfaces, which allows for the possibility of leaving normal cells unharmed.

#### Short on profit, long on expectations

Healthcare Technologies Limited reported more than \$800,000 in sales for the first quarter 1992, but a disappointing loss of \$41,000 has been sustained.

During the fourth quarter of 1991, the company began marketing a new product in Israel. Diaslide is a urine culture device which has the growth media built into the slide. After six months of sales, the new product commands the major market share in urine culture diagnostics in Israel.

Following this success, the company is registering Diaslide for health authority approval in a number of other countries.

#### Edible, low-calorie candy wrappers?

The Hebrew University has applied for patents to cover a broad range of products based on water-soluble polymers called hydrocolloids, which are available in natural or synthetic sources and are fully edible.

Research is being conducted on many food products based on this material, and new production technologies are being developed for such items as low-calorie, cholesterol-free snacks, and edible wrappings for candy and agricultural products.

#### Athena - not only the goddess of wisdom

The Athena Venture Fund, established in late 1985 under the management of Frederick Adler of the US and Tolkowsky Associates in Israel, has to date invested over \$20 million in 23 companies, including 13 active in Israel, as well as in six Israeli and other companies with shares traded on the US stock exchanges.

Among others, Athena has investments in Efi (founded by Efi Arazi, founder of Scitex), Mercury (founded by Aryeh Finegold, founder of Daisy Systems), and Gilat Communication Systems, which develops equipment for satellite communications.

Since 1985, the Fund has reviewed over 1,400 investment proposals, 75% concerning opportunities in Israel, the remainder in the US. The Fund reviews about 200 proposals annually, and has invested in three or four of these a year. Athena is a closed-end fund, to be wound up in around three years.

The Fund's managers expect to realize a substantial return on their partners' investments.

**Second Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, May 24-29, 1992.** Dr. Nicholas Bodor's work involves the designing of drugs with an improved therapeutic index, and the designing of new chemical systems.

The theory sounds simple. Consider the case of a drug being developed as a result of Dr. Bodor's basic research - an active drug with an inactive metabolite as a lead compound by chemical activation.

This changes the drug, but in many respects it resembles the original substance. The benefits can be dramatic; potency increases 40-fold, with a decrease in side effects. This is the improvement in the therapeutic index.

One part of Dr. Bodor's research has been picked by two American companies, Pharmatec and Xenon. The product is classified as a soft ophthalmic steroid (a cortico steroid - a steroid having no side effects) with the chemical name Loteprednol Etabonate (USAN name).

Market potential is \$150 million. But the road is long. The basic patent was applied for in 1980, and was granted only in February 1991

Bodor has published over 300 research articles, and has been awarded over 140 patents.

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