## ISRAEL HIGH TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, PUBLISHER November 2006 Vol. XXI Issue No. 11 You are invited to visit us at our website: http://ishitech.co.il10

### Post "War in Lebanon" Blues

Israel is experiencing post War in Lebanon Blues. Israel has always been a small country with big shocks. A state commission of inquiry, to determine the responsibility of the poor performance of the Israel Defense Forces, and the management of the war by the government has not been put into place, as yet. Bickering among the top echelons of the army is prevalent and getting considerable exposure in the local media.

Investigators are questioning the Prime Minister's purchase and sale of real estate. Moreover the president, whose role is mainly ceremonial, is facing criminal charges related to sexual harassment. The former Minister of Justice is facing criminal charges related to sexual harassment and another Member of Knesset is facing charges for improper political appointments.

Any western country faced with such a plethora of problems undoubtedly would be experiencing a plunging stock market and a steep devaluation of its currency. Yet, not only is this not happening but also, as we write, the stock market has climbed 10%, in the past month and the Israeli Shekel has revalued sharply against the US dollar.

The state of the Israeli economy is a clear manifestation of this. It is the product of a responsible fiscal policy. This year, the Israeli economy is estimated to grow at an annual rate of at least 4.6%. It is a higher rate than that of Euro-currency countries and the United States. It is an achievement that is being reached despite the military campaign in Lebanon, and despite the forecasts predicting that the fighting would impede growth. Moreover, 2006 will yield a positive balance of some \$6 billion export surplus over imports - an all time high.

Foreign investment in Israel has already reached \$16 billon this year, which is also a record. Furthermore, the State deficit is expected to be less than 2% despite the

considerable growth in security expenditure following the military campaign and the heavy costs involved in rehabilitating the north.

Additional explanations behind the buoyancy of the currency and the stock market are clearly traceable to the highly visible return of the foreign investor. Several months ago several billions of dollars of investments in emerging markets were taken of the table. If not for the War in Lebanon, Israel would have probably been the first market to feel the return of the international

http://ishitech.

Post "War in Lebanon" Blues

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investor. When a foreign investor buys Israeli shares he must convert his dollars to shekels, giving the Israeli currency a sharp upward lift.

So while Israelis go about the putting of their political house in order they can be encouraged by the resilience of its economy and stellar performance of its financial markets.

#### McAfee buying Tel Aviv Onigma for \$20m.

Data security leader McAfee has bought a young Tel Aviv startup, Onigma, for somewhere between \$15 million to \$25 million cash, surmise hi-tech circles.

McAfee will be integrating the Onigma technology in its enterprise security solution, and will be recruiting dozens more Israeli developers for the startup, which will become a local R&D center.

Onigma was founded in December 2004 by Amir Sadeh, Ishay Green and Liad Agmon, three "graduates" of the technology division of the Israeli army intelligence forces. The company is run by Jim Penosky, who hailed from the OnDemand Partners consultancy.

The startup was devoted to a new area in data security: DLP, or Data Leakage Prevention from an enterprise servers.

Within days, the Onigma technology will be available via all McAfee outlets worldwide.

The technology enables the company to monitor all its workers and ensure they do not send confidential information beyond the enterprise boundaries, whether via Internet or external memory storage devices.

Among the company's investors are the founders of Excellence-Nessuah, Gil Deutsch and Roni Biran.

## Technion to get \$100 million for biomed research

Biomedical entrepreneur and philanthropist Alfred E. Mann has agreed to donate \$100 million to establish a biomedical research institute at the Technion-Israel

Institute of Technology.

The new research institute will concentrate on developing products based on the knowledge developed at the Technion in life sciences, biomedical engineering, and medical instruments and equipment fields.

"The Technion's interdisciplinary nature allows for the melding of biomedicine and science with engineering and technology not possible at most universities," said Mann. "I'm confident this unique focus will make the institute a world leader, and a place that will help cure the diseases that plague mankind."

Mann has also decided to invest in Biomimic Pharma, a Haifa startup that uses technology developed at the Technion. Estimates are that the investment could reach \$20 million.. Biomimic is working on development of a new technology for engineering of antibodies for fighting cancer cells and viral infections.

He is also considering establishing a facility to manufacture a product for treating diabetes on the Ben-Gurion University campus in Be'er Sheva.

### **NICE Systems receives Eiffel Tower order**

NICE Systems Ltd., which makes data and voice recording devices for companies, said it received a follow-on order to provide video security system



technology, for the Eiffel Tower in Paris. NICE said the system uses advanced digital video analytics, to retrace the steps of suspicious individuals and to verify whether they represent a security

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Tel-. +972-3-5235279 Fax. +972 3-5227799 E-mail: htir\_1@netvision.net.il

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#### Agilent opens R&D center in Israel

Patrick J. Byrne president of Agilent Technologies Inc. (NYSE: A) Electronic Measurements Group recently visited Israel to open the company's new R&D center. Byrne said that due to developments in the communications industry and Israel's centrality in the wireless equipment industry the center would suit Agilent's new technology needs. "The wireless communications industry is undergoing convergence to IP. Technology such as WiMAX is based on this convergence, which is the future of mobility. There are many semiconductor companies in Israel working on solutions that will be the future of the mobile world. I see the convergence of market forces in Israel as something that enables us to be in the forefront of the semiconductor industry, solutions that will later go to equipment companies".

## India to purchase Israeli-made anti-aircraft missile systems

Indian Air Force Air Chief Marshal SP Tyagi has announced that India intends to purchase 18 Israelimade SPYDER anti-aircraft missile systems to bolster India's aging defense establishment.

Developed by RAFAEL, a leading Israeli defense contractor, the SPYDER can track up to 60 targets at a time.

The main components of the SPYDER system are the truck-mounted command and control unit, the missile firing unit with Python 5 and Derby missiles, a field service vehicle and missile supply vehicle. The vehicles are air-conditioned and also provide protection against biological and chemical warfare (BCW). The system is based on a modular design and system maintenance in the field is through very quick module replacement.

Tyagi said the deal's finalization is pending the authorization of India's ministerial security committee.

SPYDER truck-mounted air defense system uses a combination of active radar missiles and infrared missiles to track and intercept jets, helicopters, unmanned aerial vehicles and precision guided munitions.

### FDA approves NESS device

#### for moving paralyzed legs

Medical device company NESS Neuromuscular Electrical Stimulation Systems Ltd. announced that it received US Food and Drug Administration (FDA) approval to market its NESS L300 device for moving

paralyzed legs.



The company's announcement follows a previous one in which it reported it received European CE Mark certification for its product. The company estimates the market for its product in the US to be worth in excess of \$2 billion, and said it expects a substantial increase in

sales following the FDA approval and the launch of marketing in the US.

CEO Shmuel Shany stated that the product was designed for use by rehabilitation centers and private patients. "In the US, there are 2,000-3,000 rehabilitation centers and these centers can buy the devices and supply them to patients. The equipment can also be used by private patients in their own homes." The company intends to sell the L300 at \$6,000 per unit, and is in talks with medical insurance providers to finance the purchase for private users who can't afford to buy it themselves.

NESS's main investor is Teuza - Venture Ltd. (TASE:TUZA) with a 34% stake. Other investors are businessman Alfred Mann, BG Technologies and Applications (the technology transfer company of Ben Gurion University of the Negev), Johnson and Johnson Development Corporation and others. The company will distribute the product in the US through Bioness, a joint NESS-Alfred Mann subsidiary.

NESS's core technology is based on the use of computerized "functional electrical stimulation" (FES). This can be used to activate paralyzed muscles and to restore partial movement. FES works by creating electrical pulses that are carried by small nerve fibers to the muscles, and cause the muscles to contract and release. This helps to relieve the effects of paralysis and facilitates the development of pathways for voluntary control

After 13 years of research and development that cost \$25m. NESS, an acronym for Neuromuscular Electrical Stimulation Systems (NESS) Ltd. is well on its way to commercialize its flagship product "The Handmaster". The Handmaster, is a non-invasive system for paralyzed

hands. It incorporates and integrates advanced upper limb rehabilitation technologies in a single system for patients' independent use. FES or Functional Electrical Stimulation is a rehabilitation technology using electric current impulses applied to the neuromuscular system that activate the muscles and negotiate movement, increases local blood flow while lessening spasticity. It is the first in a line of a planned range of products whose aim is to provide comprehensive treatment of the paralyzed hand and eventually other parts of the body.

The Handmaster consists of a size-adjustable splint that incorporates an integral electrode system and is connected by a cable to a small and user-friendly electronic control unit. The splint is easily applied and removed by the user and is designed for independent use at home.

The underlying technology was developed by Professor Roger Nathan of Ben-Gurion University who continues to guide the research and development program of the company.

### TopSpin signs distribution agreement

Topspin Medical Inc. (TASE:TOPMD) announced that it signed a distribution agreement with Top Medical BV for the company's imaging catheter for diagnosing problems in cardiac arteries in the Benelux countries. Top Medical distributes cardiology devices.

TopSpin said that the Netherlands and Belgium were an important market for the company's products, because of the number of opinion-setting cardiologists there and because the countries are known for generously supporting innovative medical devices. TopSpin also conducts clinical trials in both countries.

#### Xerox to Acquire XMPie for \$54m

Copier maker Xerox Corp said it agreed to acquire



marketing software developer XMPie for \$54 million in cash. This marks Xerox's first acquisition in Israel. Xerox is buying the company after four years of collaboration.

XMPie produces variable information software, which combines communications outlets including direct mail, the Internet and e-mail to create marketing materials that can be specialized enough to bear an individual's name.

XMPie will maintain its brand name and operate as a

stand alone unit. XMPie founder Jacob Aizikowitz will head the unit. The "vast majority" of the company's 60 staffers will remain, as will its headquarters in New York and its development facility in Israel.

Based in New York, XMPie was founded in 2000. The company's solution is mainly designed for digital printing, which has received an immense boost in recent years thanks to developments in software. XMPie's software is mostly relevant for marketing activity, making it possible to prepare documents with the addressee's name embossed. The printed advertising market in the US will triple to \$16.6 billion by 2009.

Xerox plans for XMPie to function as its first R&D center in Israel, focusing on digital printing. XMPie will operate as an independent unit.

XMPie,s 2006 sales are projected at \$15 million, and it expects to be profitable.

# HU 12th, TAU 21st in biotech patent engineering

The Milken Institute ranks the Hebrew University of Jerusalem 12th and Tel Aviv University 21st in its survey of biotechnology patent rankings for universities. The survey, entitled "Mind to Market: A Global Analysis of University Biotechnology Transfer and Commercialization," encompassed 100 universities and assessed them by the number of patents published, level of innovation and the interest they generated in industry.

US universities took the top five places. The University of Texas was in first place, followed by the University of California San Francisco, John Hopkins University, Stanford University, and Cornell University. The University of London came 10th followed by Harvard University and then the Hebrew University.

The Hebrew University is the second non-US university on the list while Tel Aviv University is the fifth.

### Railroad crossing safety system

InRob Ltd. ("InRob") (OTCBB:IRBL), a leader in the



development and production of advanced wireless control systems and integrated solutions for unmanned ground vehicles (UGV), announced

that it has developed an intelligent railroad crossing safety systems, following InRob's expansion into the remote-control consumer market.

The presence of grade railroad crossings has always been a potential safety hazard to motorists and pedestrians. In the U.S., almost 90% of all railrelated fatalities are connected with railroad crossing and trespassing incidents, according to the Federal Railroad Administration (FRA). In Israel, concerns regarding crossing safety have heightened in the wake of two fatal railway accidents in the past 12 months. InRob is now offering its intelligent railroad crossing safety system to Israel Railways to improve safety of railroad crossings, based on technological capabilities proven in military applications. The main components of the railroad crossing solution include advance detection devices and sensors, a sophisticated remotecontrol system and digital data link communication networks that relay information between crossings. trains and railway traffic control centers in real time. When an obstruction is detected on the tracks, the system assumes remote control of the train's braking system.

## **Chevron to implement On Track Innovations** system in Cameroon

Chevron Corporation (NYSE: CVX), one of the largest energy companies in the world, is adopting the EasyFuel solution made by Israeli company On Track Innovations (NASDAQ: OTIV).

EasyFuel is an automated system for gasoline payment and automated fuel management.

Chevron will first be installing the systems in Cameroon, OTI said. It expects to expand use to additional African and also Asian countries as well.

The deal is estimated to be valued at about \$1.5 million to OTI.

EasyFuel is a wireless system that brings fleet managers access to real-time information, to prevent fraud and streamline operations.

OTI, a specialist in contactless microprocessor-based smart card solutions, is traded at a market capitalization of \$113 million, having lost 44% of its value this year. The OTI solutions are easily integrated into existing hardware and software systems, the company says, adding that its system allows for 24-hour non-attendant sales.

### Ormat to invest up to \$63.5m in biodiesel

Ormat Industries (TASE: ORMT) is entering the biodiesel field with the announcement



biodiesel field with the announcement that it will invest \$13.5 million in R&D and \$35-50 million in the construction

of a production facility. This will bring the company's total investment in this field to nearly \$60 million.

Biodiesel can be used as a substitute for conventional diesel fuel. Ormat aims to play an integrative role in this field, and will also focus on the development of plants for the production of alkyl esters used in the processing of biodiesel, as well as the development of production processes and the construction and operation of production facilities.

#### Global Competitiveness Report 2006-2007

Israel is the world's 15th most competitive economy according to The Global Competitiveness Report 2006-2007, recently released by the World Economic Forum. The rankings are drawn from a combination of publicly available hard data and the results of the Executive Opinion Survey, a comprehensive annual survey conducted by the World Economic Forum, together with its network of Partner Institutes (leading research institutes and business organizations) in the countries covered by the Report. This year, over 11,000 business leaders were polled in a record 125 economies worldwide.

Ranking of the top 16 of 125 economies surveyed

- 1. Switzerland
- 2. Finland
- 3. Sweden
- 4. Denmark
- 5. Singapore
- 6. US
- 7. Japan
- 8. Germany
- 9. Netherlands
- 10. UK
- 11. Hong Kong
- 12. Norway
- 13. Taiwan, China
- 14. Iceland
- 15. Israel
- 16. Canada

## Pfizer signs licensing agreement with Quark Biotech

Pfizer Inc and Quark Biotech, Inc., announced that



they have entered into an agreement under which Pfizer acquires an exclusive worldwide license to Quark's novel human gene RTP-801 and to molecules that modify its expression

or function. RTP-801 is involved in the development



of pathologic blood vessels, which accelerate the progression of agerelated macular degeneration (AMD).

Financial terms of the agreement were not announced. AMD is the leading cause of blindness in the developed world affecting about 15 million Americans over the age of 50. The target for RTP-801 is neovascular or wet AMD. Wet AMD is the most devastating form of the disease and occurs due to the formation of an abnormal vascular network beneath the retina of the eve. These blood vessels are excessively leaky and lead to an accumulation of fluid and blood beneath and within the retina resulting in a loss of visual acuity.

"Despite advances in research and the availability of new treatment options, there remains a need for new approaches to improve the lives of patients with AMD." said Martin Mackay, Ph.D., Pfizer senior vice president Worldwide Research and Technology. "We are excited about the potential of RTP-801 to preserve vision in patients with wet AMD who have an increased risk of progressive eye damage and vision loss."

Based on pre-clinical models, it is believed that AMD can be treated by blocking the expression of the RTP-801 gene through RNA interference or RNAi. RNAi is a naturally occurring mechanism within cells for selectively silencing and regulating specific genes. The ability to silence genes through RNAi could provide a new way to treat a wide range of human diseases -including AMD -- that are caused by the inappropriate activity of specific genes.

### Microsoft buys Israeli startup Gteko for \$110m

Microsoft announced an agreement to acquire the Ra'anana, Israel-based startup Gteko Ltd. Microsoft will pay \$110 million for the acquisition of the Israeli company.

Gteko

Gteko, founded in 1992, is headquartered in Ra'anana, with offices in New York and Tokyo. Their most recent round of funding included

investments from Pitango and Intel Capital, among others. Gteko manufactures ease-of-use networking and support software for the digital home.

"Our companies have many complementary strengths and a closely aligned vision for delivering leading PC problem-solving solutions to customers directly and with our partners," said Dr. Joshua Glazer, chief executive officer of Gteko. "Together, Microsoft and

Gteko have exceptionally deep technology expertise to offer this market," He added

#### Microsoft buys Gteko

The acquisition of Gteko is part of Microsoft's strategic decision to turn Microsoft Israel into a research and development center. Moshe Lichtman, one of the company's senior executives, will oversee the R&D operations in the country.

"By the end of the decade, Microsoft will significantly expand its operations in the consumer sector, to which end advanced support solutions are required. Gteko's leadership in providing simple solutions to a wide range of PC problems made this a particularly attractive opportunity for Microsoft," said Lichtman, president of MS Israel R&D Center.

Gteko is a leader in ease-of-use networking and support software for the digital home.

"Joining forces with Gteko is yet another building block in the expansion of our technological operations in Israel and it will help enhance our efforts to work together with other elements in the industry to help provide a superior PC experience for our customers," he stated.

#### DSM invests in Israeli personal care company

DSM Venturing, the corporate venture unit of Netherlands-based ingredients specialist DSM, says it has invested \$2m in Sol-Gel Technologies, a privately owned company specializing in beauty and health care applications.

The investment will be specifically channeled into the development of skin care and dermatology applications as part of efforts by DSM to increase its presence in the personal care field.

Sol-Gel develops ingredients that are used in sunscreens, anti-acne and anti-ageing products based on proprietary technology.

This patented technology revolves around its sol-gel line, which enables room temperature entrapment of organic and bioactive molecules in silica glass beads.

This is said to enable an efficient delivery system, whereby ingredients can be safety isolated and controlled valuable characteristics for the many increasingly functional cosmetic products that are now cramming retail shelves.

DSM says that as well as the investment in Sol-Gel Technologies, which has offices in the US, in addition to Israel base, it intends to explore possible joint development activities and other collaborations in other areas of personal care as well as the animal and human nutrition fields.

New perimeter security systems

Magal Security Systems, Ltd. (NASDAQ GM: MAGS; TASE: MAGS), announced that it has released two new



upgraded advanced technology perimeter security systems. First commercial shipments of both systems, are expected before the end of the year.

OmniTrax is the fifth generation of buried cable detection sensor from SSC, cementing its position as world leader in covert buried cable technology. Major new features of this product include a ranging function that locates targets with an accuracy of one meter, user defined detection zone assignment, sensor cables doubled in length allowing one processor to detect intruders over as much as 800 meters (1/2 mile) of perimeter, and fully integrated power and data distribution over the sensor cables.

XField is the third generation of electrostatic field sensor taking advantage of new digital signal processing technology.

## Inkjet design could print at 1,000 pages per minute

Inkjet printers could put out 1,000 pages per minute, thanks to a full-page print technique described by researchers.

The JeTrix technique could print books to order at bookshops at the rate of two a minute, or at airport kiosks eliminating the need for book stocks, and could be in use within two years, according to Moshe Einat, at the University of Judea and Samaria, in Ariel. Instead of a moving print head, it uses a print "screen" the size of a piece of paper or larger, covered with tiny nozzles that can print sheets "almost instantly", said Einat, of the university's department of electrical and electronics engineering.

Einat and his colleague Nissim Einat have created a small prototype, 12cm square, which has already hit speeds of 1,000 pages per minute.

The Israeli Government and private "angel" investors

funded the prototype, made up of 57,600 nozzles fed by micro-reservoirs 1mm square. With more funding, Einat plans to make a whole-page version.

The researchers use micro-reservoirs, each of which feeds four nozzles by capillary action, and which are fed by an ink wiper, which fills them up.

The research, prototypes and patent applications have cost \$140,000, partly funded by the Israeli ministry of industry, said Einat. "We are now in a fund rising stage," he went on. "Assuming we manage to raise the funds, the estimated time [a year and half to commercial products] is likely." The 1000ppm speed would be reached from the very first commercial models, he said.

### **SuperCom obtains \$50m contract**

SuperCom (OTCBB: SPCBF.OB; Euronext: SUP), which provides smart-ID and active radio-frequency



tracking solutions, has signed an agreement worth \$50 million, to supply an ID card system. The buyer's name was not announced.

SuperCom revenues in the first half of 2006 amounted to just \$4.9 million. That was an increase of 25% as compared with the the same period in 2005.

The deal includes the supply of digital enrollment and production equipment, software, maintenance and supply of secured raw material for the production of various National ID cards.

Eyal Tuchman, SuperCom's CEO said, "We anticipate this important contract will increase SuperCom's backlog and revenues for the next ten years and will further strengthen SuperCom's comprehensive Magna solution as a technology leader for national ID projects.

Recently SuperCom announced several additional agreements to supply its Magna system for the production, management and personalization of biometric passports in Asia-Pacific, Europe and other regions.

### Elbit Systems in border security contract

The consortium led by Boeing (NYSE: BA), which includes Elbit Systems Ltd. (Nasdaq: ESLT; TASE: ESLT), has won a \$2.1 billion contract, to help the Department of Homeland Security enhance security along more than 7,500 miles of US borders with Mexico and Canada.

In May, Boeing announced that it was participating in the tender, and that it passed the initial screening stage. The company added, that Elbit System, was a member of the consortium, through its US subsidiary, Kollsman Inc.

#### Year of exits

2006 has been a successful year for Israeli venture capital. With just over two months to go to the end of the year, the number of exits recorded by the funds is reminiscent of another period, even though the sums this time round are a lot lower. If we had told venture capital fund executives a few years ago that the funds of the 1999-2000 vintage would produce the impressive list of exits we are seeing today, they might not have believed it.

### The "Globes" ten most promising start ups of 2006



ACTIMIZE Actimize - Operational-risk management software



**Xeround** Data systems for telecom companies



**Metacafe** - Video sharing technology



Z∈nd Zend - PHP development language



Gamida Cell - Stem cell therapy technologies



Siano - Silicon receivers for mobile digital TV



SuperDerivatives - Options pricing system



GI View - Advanced endoscopic devices



Business Events - Business intelligence solutions

**dbMotion** - Medical informatics

One thing that venture capital funds learned to do during those tough times at the beginning of the decade, was to examine the companies in depth and only invest in them, after a meticulous review of the technology and the management team. This, of course, does not guarantee a fund a high return on its investment, but it does at least lower the risk. Funds in Israel are set to implement the conclusions they drew from such examinations, with the \$2.2 billion estimated to be available for venture capital investment in the Israeli economy.

Partners from dozens of venture capital funds chose the current list of promising companies. Each participant was asked to choose three companies (of which only one could be from his or her own portfolio), based on the following criteria: promising and innovative technology; at least one successful financing round; sales of up to \$10 million; a promising management team; a large target market, and the potential to become a market leader.

This year's list is most notable its diversity. Topping the list is a software company, which focuses on data analysis, primarily for the financial market. In second place is a company, which develops databases for telecommunications companies, while third place goes to an Internet company whose users, are mainly private customers. Further down the list are companies specializing in business, financial and medical information, medical equipment companies, a biotechnology company, and a chip company.

But if you insist, the choice this year pointed to one trend: databases. Four companies in the list have developed technologies for database management: Actimize Inc., selected as the most promising company for 2006, develops operational risk management solutions for financial enterprises; Xeround Systems, which came next, develops flexible database technology for integration in the systems of telecommunications giants; dbMotion Inc., develops web-based information sharing technology for the healthcare industry, and Verix (formerly Business Events) has developed a technology for identifying and monitoring factors affecting substantial business changes.

### Israel Broadens 3-to-1 Matching Funds **Program for Nanotech Research Centers**

It has been announced that the Israeli government will increase funding for its universities over the next 5 years to \$82 million in order to strengthen their advanced research centers in nanoscience and nanotechnology, it was announced.

Israel's National Nanotechnology Initiative director Dan Vilenski announced the funding increase at the 10th annual Journey 2006 technology conference, noting that the increase resulted in large part from the success of a similar matching fund model developed for the Russell Berrie Nanotechnology Institute at Israel's Technion Institute of Technology in 2005.

"We found that multiple donation matching can work very well for an Israeli nanotechnology center," Vilenski said. "By extending this model to the nanotech centers at other Israeli universities, we see the possibility of maintaining our recognized leadership in advanced nanotech research."

The new program provides 3-to-1 matching funds for all private donations to nanotech centers, effectively producing over \$230 million in new funding for Israeli nanotech centers through 2011. The program creates a 'funding triangle' consisting of the source donor, the university and the Israeli government, where each contributor has explicit input over how the matched funding will be used.

With the \$55.5 million increase in matching funds becoming available from 2006, Israel's nanotech centers stand to be among the world's best funded, as well as the most respected.

"Worldwide, nanotech research will be more and more competitive in the next ten years," Opper summarized. "We believe that this new funding model, will make the critical difference for Israel. It will help us to retain and attract the most outstanding researchers and to produce the most valuable research."

Along with Vilenski and Dr. Opper, Israel's national nanotechnology program has benefited from the vision and leadership of many others, among them Prof. Jacob Ziv, chairman of TELEM Forum and a 1995 Marconi Fellow, and Dr. Dan Maydan, chairman of the INNI and president emeritus of the multinational company Applied Materials, Inc.

## ImClone, Sanofi lose patent case to Israeli Weizmann Institute

Pharmaceutical companies ImClone Systems (IMCL. NAS) and Sanofi-Aventis (SASY) have lost a court case relating to a patent for the methodology that inhibits the growth of tumour cells. The ruling may result, in the two companies paying royalties on the sale of their experimental cancer treatment drug, Erbitux, to an Israel-based research institute.

The Weizmann Institute of Science in Israel and its licensing arm, the Yeda Research and Development Company, had filed a suit in 2003 alleging that the concerned technology was developed by their researchers, whose names were not included in the list of inventors of the patent.

The ruling by Judge Naomi Reice Buchwald of the Federal District Court of New York is expected to entitle the researchers to royalties on the sale of Erbitux. The judge directed the US Patent and Trademark Office to

replace the current seven names on the controversial patent with those of Professor Michael Sela, Dr Esther Aboud-Pirak and Dr Esther Hurwitz of the Israeli research institute. ImClone Systems said that it disagrees with the court ruling.

# Foreign investment in Israeli start-ups \$2.1b since January

Foreign investment in Israeli start-ups has totaled \$2.1 billion since January 2006, according to a survey carried out by the Globes financial daily. ". Top of the list is optical communications solutions developer, Passave Technologies, which forewent a Nasdaq IPO in favor of being sold to PMC Sierra Inc. (Nasdaq: PMCS) for \$300 million in shares. Passave's founders sold their shares in the company a few days after the sale.

The survey also found that 31 start-ups have been sold since the beginning of the year. Three start-ups were biomedical or medical devices companies: ColBar LifeScience Ltd., Alma Lasers Ltd. and Predix Pharmaceuticals Inc. The other companies developed technology of one kind or another.

EMC Corp. (NYSE:EMC) has made more investments in Israel this year than any other foreign investor. Since January, it has acquired three Israeli start-ups: Kashya, nLayers, and Proactivity for an aggregate \$233 million.

Software giant Microsoft Corp. (Nasdaq:MSFT) has acquired two Israeli start-ups since January: Gteko for \$120 million and Whale Communications for \$76 million.

2006 has also been the year in which other US giants decided to buy an Israeli start-up. Xerox Corp. (NYSE: XRX) acquired XMPie Inc. for \$54 million. McAfee Inc. (NYSE:MFE) acquired Onigma Ltd. a few days ago for \$20 million.

Most of the acquisitions were in cash. Exceptions were the acquisition of Passave and SightLine (a cash and share-swap deal), the merger of Predix with Epix Pharmaceuticals Inc. (Nasdaq:EPIX), and four other acquisitions for sums of between \$2 million and \$52 million.

Of the 31 start-ups mentioned, seven were sold for over \$100 million, and accounted for half the total foreign investment in Israeli start-ups so far this year.

## Optimata completes successful breast cancer clinical study

Optimata Ltd. announced the successful results of a clinical study for the prediction of individualized patient

response to chemotherapy drugs. The study used Optimata's computerized technology known as the Virtual Cancer Patient Engine (VCP).

The results show that the prediction accuracy of the VCP was 70 percent. This is substantially higher than the current prediction accuracy of oncologists which is estimated to be 25-30 percent.

Dr Abhik Mukherjee from Nottingham City Hospital who worked on the study, said in a press release issued by Cancer UK: "Every cancer is slightly different and every patient will respond to treatment differently. We wanted to find a way to predict how patients would respond to a particular drug in order to limit their side effects and give them the best chance of beating their disease."

In the study, researchers programmed Optimata's Virtual Cancer Patient Engine to model how individual breast cancerl patients would be expected to respond to chemotherapy drugs. The VCP looked at how the drugs would affect the growth of the cancer, how the drugs would behave in the body and how the cancer cells would respond to the drugs. Researchers then compared the predictions of the VCP with the actual response of the patients to test the effectiveness of the technology.

"We found the computer programme accurately predicted how the patients responded to treatment in around 70 per cent of cases," said Dr. Stephen Chan, Head of the Department of Clinical Oncology at Nottingham City Hospital in the U.K. and the director of the study.

Kate Law, director of clinical trials at Cancer Research UK, said: "This was a very interesting early study that could potentially have a big impact on how cancer patients are treated in the future. Tailoring treatments to individual patients will ensure the best possible outcome for every patient."

The trial was aimed at testing the accuracy of the VCP in predicting the response of patients, suffering from cancer that had spread from the breast to other vital organs (Metastatic Breast Cancer or MBC) to one of two commonly used chemotherapy drugs, single agent docetaxel or doxorubicin. The primary end-pont was to determine whether the VCP simulations retrieved the clinical scenario in terms of both response and toxicities.

Predictions of the response of individual metastases in the validation set to each particular treatment were clustered into "response" and "no response" groups. The preliminary result of the prediction accuracy of VCP to actual response was 70 percent.

The VCP is based on mathematical modelling and computerized simulation of the interplay between biological, pathological and pharmacological processes underlying drug-patient interactions.

"The results of this study show the enormous potential the VCP has as a tool for treatment individualization," said Prof. Zvia Agur, Founder and Chairperson of Optimata.

## Startup dbMotion partners with Pittsburgh hospital

The Haaretz daily reports that the University of Pittsburgh Medical Center (UPMC), a leading integrated health care enterprise, and dbMotion, a provider of web-based data-sharing and integration technology, yesterday announced an \$84 million initiative to create one of the largest models of interoperability in healthcare.

Ra'anana-based dbMotion will receive at least \$35 million of this amount, including an investment by UPMC.

UPMC runs 19 hospitals and 400 outpatient clinics and doctors' offices. It employs some 43,000 workers and has an annual income of \$6 billion.

The Israeli startup, which was spun off in 2004 from Ness Technologies, will provide a flexible platform for UPMC's clinicians to securely access integrated patient information across its hospital system. As part of the agreement, UPMC and dbMotion will create a joint development partnership to create novel interoperability solutions for the health care industry. The result will be a model of interoperability for the regional and national health information networks that are being promoted by the U.S. federal government to improve safety and reduce costs. To facilitate this sweeping initiative, UPMC and dbMotion will also create a joint development effort in Pittsburgh.

Currently, each hospital department head installs a different system, and there is no coordination of the data, explained Moshe Shahaf, a member of the dbMotion board and managing partner at Vertex Venture Capital. By installing dbMotion's application, he said, users gain the ability to search for and look at every detail of information about a patient from every relevant department.

The Israeli firm beat out competition that included software giants like HP, IBM and EDS, which also submitted bids for the tender.

UPMC will be one of dbMotion's first U.S. customers, though the firm's technology is widely deployed in Israel's health system. Clalit Health Services installed dbMotion's technology in 2001, and in 2004, the system was extended to include Sheba Medical Center and Rambam Medical Center.

#### .Teva Pharmaceutical CEO Makov Retiring

The world's largest generic drug maker Teva Pharmaceutical Industries Ltd. said that President and Chief Executive Israel Makov will retire next year as part of a planned succession move.

Makov, 67, will be replaced by Shlomo Yanai, 55, who will join the company in 2007.

Yanai previously served as president and CEO of Makhteshim Agan Industries Ltd., which manufactures and distributes generic crop protection chemicals.

Makov, who has been with Teva for 11 years, will remain with the Israel-based company as an adviser for two years and will help with the transition process.

There has been consierable speculation surrounding the announcement.

Eli Hurwitz, chairman of Teva stated that the move is part of a planned succession strategy. "This is just the first opportunity of many that we will have to thank Israel Makov for the role he has played in dramatically increasing the scope and scale of Teva's business and solidifying our position as the world's leading generic pharmaceutical company. During his tenure as CEO, Teva's sales will have increased over four-fold, to approximately \$8.5 billion; its adjusted net income will have increased approximately six-fold; and the average annual return to investors has been 24%. Israel has considerably expanded and enhanced our balanced business model, both in terms of our lines of business, including our broad generic portfolio, our

strength in active pharmaceutical ingredients, and our increasingly significant branded and innovative product businesses; and in terms of our geographic reach which now extends beyond our historic core markets of North America and Western Europe to markets with extraordinary growth opportunities such as Central and Eastern Europe, Russia, and Latin America."

Rumors have been circulating that Makov did not succeed in raising trhe price of the Teva shares and did not maintain a close relationship with Wall Street analysts.

In 1984 Israel Makov headed InterPharm, which was Israel's first biotech company. He took the company to Wall Street. InterPharm was eventually acquired by Serono.

#### IAI to supply UAVs to Indonesia

Israel Aircraft Industries Ltd. (IAI) will supply unmanned aviation vehicles (UAVs) to the Indonesian army in a deal worth tens of millions of dollars. This is the first time that Israel and Indonesia have publicly disclosed an arms deal between the two countries.

Defending his country's decision to select IAI as the supplier of its UAVs, Indonesian defense minister Juwono Sudarsono said, "The people of Israel are the offspring of the people of Abraham just like Muslims, so this does not pose a problem."

The Indonesian army has purchased IAI's "Searcher MK.II" UAVs, which are also in service in the IDF. They are to be deployed along Indonesia's northern coastline to prevent attacks by pirate ships in the Strait of Malacca, which separates Indonesia from Malavsia.

Indonesia published an international tender for the supply of UAVs and received offers from 42 companies from all parts of the world. IAI and Airkot of Russia were two of the three companies that went forward to the final bidding stage. Indonesian teams visited Israel several times last year to assess the capabilities of UAVs built by IAI.

#### Intel to add to its Israeli work force

Intel Corp. is set to recruit 1,500 workers for its sites in Israel, between now and the end of 2007, having already recruited 1,000 workers in Israel since January 2006, according to a local report.

The reported recruitment plan contrasts with Intel's previously reported plan to cut 10,500 workers

worldwide, or about 10 percent of its global workforce. Intel Israel, which employs about 7000 people, would expand significantly as a result. The recruitment drive appears to imply Intel is not planning any delay to the ramping of chip production at Fab 28, its 300-mm wafer fab under construction at Kiryat Gat.

Alex Kornhauser, who heads Intel's activity in Israel, twas quotee "that Intel has already recruited about 1,000 workers for its Israeli sites since the beginning of 2006, with another 1,500 yet to join. About 55 percent of the recruitment intake are joining or set to join the production workforce, mainly in Kiryat Gat. The remaining 45 percent of the intake are set to be employed in Intel's research and development centers, mostly in Haifa".

Sources in Intel have said that the electronics, electrical and computer engineers joining the Haifa site are being recruited to develop the company's next mobile processors.

Kornhauser said that alongside the recruitment there would be cutbacks in the Israeli workforce, although on a smaller scale than the 700 jobs, previously expected, the report said.

#### Telecom 2006

Telecom 2006, Israel's 8th Telecom exhibition will be held on November 6th-8th 2006 at the Israel Trade Fairs and Convention Center, Tel Aviv. Telecom 2006 will feature innovations and explore the professional aspects of telecommunications, cellular, IT security, infrastructure and applications, and internet content. These are currently the "hot" topics in the industry. During the conference, panels and discussions will feature senior management of some of the worlds leading telecommunication, internet and electronic companies.

Among the key Israeli companies participating in the conference are ECI, Rad Data Communication, Tadiran Telecom, AudioCodes, BATM, OptiBase and Alvarion.

Delegations led by government ministers or top-level officials who have confirmed participation, include: Australia, Albania, Bulgaria, Croatia, The Czech

Republic, Estonia, Lithuania, Nigeria, Romania, Serbia, Sweden and Uganda.

Additionally, business delegations from Australia, China, The Czech Republic, France, India, Italy, Japan, Korea, Poland, Romania, Sweden (headed by the Swedish Chief Scientist), and Vietnam will also attend the conference and exhibition. Embassies presenting a booth to highlight companies from their respective countries include: Austria, France and Poland.



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