## ISRAEL HIGH TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, PUBLISHER May 2006 Vol. XXI Issue No. 4 You are invited to visit us at our website: http://ishitech.co.il4

### The Promise of Tomorrow is Here Today

Israel remains an unparalleled concentration of technological and entrepreneurial know-how. It has survived the messy explosion of the dot.com bubble at the turn of the century and is forging ahead, and creating new businesses while building value. Just like the lyrics of a Broadway song "June is busting out all over" the same could be said of Israel's technology sector.

The New York Times, Business Week and Forbes have all noticed the renaissance of high-tech in Israel. In recently published articles they point to the massive level of foreign investment that has exceeded \$10 billion in 2005. Intel, alone is funnelling several billion dollars in building a new chip wafer plant in Kiryat Gat.

Even more impressive is the individual ingenuity. In this month's report we mention Israeli student Uri Alon whose advanced text search algorithm was bought by Google.

International companies such as Sun Systems are setting aside large sums of money for acquisition of Israeli companies.

Helping the growth has been the willingness of investors to buy new issues. The London AIM Market appears to be a bottomless pool of capital. Our only concern is that there is little supervision and little liquidity. More mature companies are finding Nasdaq a more convenient place for capital raising.

Mergers and acquisitions continue. A case in point is the recent acquisition of Lipman Electronics by VeriFone, a deal worth \$793 million.

Almost unnoticed has been the participation of foreign companies in venture capital. Nearly half of the \$1.2 billion raised has come from outside of Israel.

Moreover, the nature of the industry has noticeably changed. In the early years large companies such as Comverse, CheckPoint and Teva were created. In the last decade the overwhelming majority of successful companies have reached the level of about \$300m. and were promptly picked up by foreign concerns. It is almost as if the local entrepreneurs sought out missing niches. We were always aware that it is easier and less expensive to acquire a technology then to begin



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Predicting Success

a research and development program, which does not always guarantee success.

Homeland security and defense, the hottest field in Israeli high-tech, have caught the attention of defense administrations around the globe, as the growing threat from international and domestic terrorism. proliferated worldwide. Hot issues are border defenses. surveillance of coastlines, transportation security, including railways, shipping, airports and airlines; protection of cargo, sensitive economic infrastructure objects, and command, control and coordination between first responders. These all are receiving high priorities on current and projected national security programs. Israel has dealt with terror attacks since its establishment. At a recent exhibition held in Jerusalem the novel CornerShot, a James Bond type rifle, that shoots around corners while protecting the shooter from enemy fire, attracted great attention. A new communications technology, is a wrist watch sized unit that delivers video to a receiver one-fifth the normal size and allows Israeli troops to see what may be just over the hill or around the next corner. Israeli exports of homeland security equipment have grown at an annual rate of 22 percent since 2002, reaching \$300 million in 2005.

Despite continuous threats over the years from its neighbors, Israel maintained its national security by the evolution and employment of comprehensive counter-terror planning, which utilized sophisticated means to secure borders and sensitive installations, gather, process and disseminate vital intelligence in order to intercept, disrupt and apprehend terrorists before they reach their targets.

Spring marks a season of hope and optimism and we believe that the months ahead will bring with them even greater achievements.

### Omrix to raise \$55m at \$230m value



Omrix Biopharmaceuticals Ltd. is scheduled to hold its IPO on Nasdaq, and raise \$55 million at a company value of \$230

million.

If Omrix succeeds, it will the first IPO by an Israeli company that will be listed on the Nasdaq main list since the beginning of the year. IncrediMail Ltd. (Nasdaq:MAIL), which went public earlier this year, is listed on the small cap index.

CIBC and UBS will be the lead underwriters and UBS will be the sole book runner. Oppenheimer & Co. Inc. and Leerink Swann will be the secondary underwriters. Omrix will offer 3.4 million shares at \$15-17 per share.

The company's shares will be traded under the symbol OMRI.

Founded in 1995, Omrix develops and markets a biological surgical sealant, as well as immunology and haemophilia products. The company has 150 employees at its headquarters and development center in Israel and posted its first profit in the fourth quarter of 2005, with a net profit of \$93,000 and an operating profit of \$633,000 on revenue of \$8.3 million.



### Israel at Defexpo 2006 in Delhi

Defexpo India 2006, the 4th Land and Naval Systems Exhibition, was held recently at Pragati Maidan, New Delhi. Israel sent a large delegation to this annual event. The following Israeli companies participated

in the event: Aeronautics Defense Systems, Azimuth Technologies, Beth-El, Controp Precision Technologies, Elbit Systems, Elisra Group, IAI-Israel Aircraft Industries, Israel Military Industries-IMI, Isorad,

#### Israel High-Tech & Investment Report

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Tel-. +972-3-5235279 Fax. +972 3-5227799
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ITL Optronics, Israel Weapon Industries-IWI, L.H.B. Maxtech Networks, Meprolight, NNL-New Noga Light Plasan Sasa, Rafael, Ricor, Soltam Systems, Tadiran Communications and TGLSP Industries. Indian Defence Minister, Mr. Pranab Mukherjee visited the Israeli National Pavilion. General J.J. Singh, the Indian Chief of the Army Staff, also visited the pavilion. The Israeli Pavilion was awarded the best exhibitor award in a competition among the 200 exhibitors.

### India's Agriculture Minister to lead major delegation to visit AGRITECH 2006

India's Minister of Agriculture, Food & Civil Supplies, Consumer Affairs & Public Distribution, Mr. Sharad Pawar is expected to lead a high level delegation of government officials and businesspeople to AGRITECH 2006 to be held at the Tel Aviv Exhibition Grounds from May 9-11, 2006. The business delegation will be under the umbrella of the Federation of Indian Chambers of Commerce and Industry (FICCI). India has consistently sent the largest delegation to this triennial event, considered to be the leading international exhibition of Israel and the largest agro-technology exhibition in the world.



### VeriFone to buy Lipman for \$793 million

VeriFone announced that it reached a cash and stock deal worth \$793 million to acquire rival electronic payment systems maker Lipman

Electronic Engineering Ltd. (TASE: LPMA) Since its founding in 1974, Lipan has based itself on innovation and technology leadership in wireless payments.

Following completion of the acquisition, VeriFone said it will continue to trade on the New York Stock Exchange and will be dual listed on the Tel Aviv Stock Exchange. In its fiscal year ended October 31, 2005, VeriFone reported net revenue of \$485.4 million. Lipman's revenue in the fiscal year 2005 was \$235.4 million.

### Aladdin gets analyst's nod

Aladdin Knowledge Systems Ltd. (Nasdag: ALDN) has reported record quarterly earnings of \$3.59 million for the second quarter, a 73% growth on revenues of \$20.06 million. IHTIR in its September 2005 issue had recommended the company's shares.

Andrey Glukhov, an analyst with Brean Murray, Carret & Co. upgraded the stock to "Strong Buy" from "Accumulate," and lifted his price target from \$21 to \$26.

Glukhov expects the company to earn \$1.13 per share for the year, a penny higher than the average estimate of analysts polled by Thomson Financial.

Aladdin reported a record \$81.8 million in sales in 2005. The figures represented a growth rate of 18.4%, following a rise of 26.3% in 2004. As profits grew by \$6.1 million in 2004, the firm ended 2005 with profits of \$5.6 million.



## Google buys search

Google acquired an advanced text search

algorithm invented by Ori Alon, an Israeli student. Sources believe Yahoo and Microsoft were also negotiating with the University of New South Wales in Australia, where Alon was a doctoral student in computer science.

Google, Alon and the university all refused to comment, though Google confirmed that "Ori Alon works at Google's Mountain View, California offices."

The University acknowledged that Yahoo and Microsoft had conducted negotiations with its business development company.

Alon previously stated that the university had registered a patent on the invention.

"For example, if you search for information on the War of Independence, you'll receive a list of related words, like Etzel, Palmach, Ben-Gurion," he explained. The text will only appear on the results page if enough words relevant to the search and the link between them are reasonable. Orion also rates the texts by quality of the site in which they appear.

### No secret safe from Russian airport security

Millions of passengers travelling across Russia will soon have to take a lie detector test as part of new airport security measures, reports an Australian newspaper.

The technology, to be introduced at Moscow's Domodedovo airport by July, identifies terrorists and drug smugglers.

Thanks to "layered-voice-analysis technology" the system, developed by an Israeli company, can tell truth from lies. "We can understand that something like this could be uncomfortable for some passengers, but it is a necessary step," said Vladimir Kornilov, IT director for East Line, the airport operator.

Initially only passengers deemed suspicious by the FSB, the Russian security service that succeeded the KGB, will take the test, but it will eventually cover all passengers.

Officials said that the tests would only take between 30 seconds to a minute.

Tech sector was 12% of 2005 business product

The information technology sector product grew by another 5% in 2005 to NIS 35 billion, and contributed 12% to the total increase in business product which rose 6.6%, reported the Central Bureau of Statistics.

The tech sector product is still 30% or NIS 15 billion lower than the 2000 high of NIS 50 billion. According to the data, the information technology sector product soared 37% in 2000 and contributed more than 50% to the increase in business product in that year. The data also revealed that the information technology sector product in 2005 also contributed to the increase in exports and employment opportunities.

During 1997-2005, the average growth in information technology sector product increased by an annualized 7.2%, while growth in the economy as a whole, increased by an annualized 2.9% and average business product increased by an annualized 3.2%.

## Capital raised by Israeli high-tech companies levels off at \$360m. in Q1 2006

14% of capital invested is directed to Seed companies

The Survey is based on reports from 87 venture investors of which 45 are Israeli management companies and 42 are mostly foreign investment entities.

In the first quarter of 2006, 101 Israeli high-tech companies raised \$360 million from venture investors – both local and foreign. The amount was up 36 percent from the \$264 million raised by 88 companies in the previous quarter, and three percent ahead of the \$350 million raised in the first quarter of 2005 by 102 companies.

Efrat Zakai, Director of Research at IVC explains: "In the nine quarters since the beginning of 2004, Israeli companies, on the average, raised about \$350 million per quarter. The last quarter of 2005 was the

lowest in two years; investments in the first quarter of 2006, simply rose back to average levels, as we had forecast." Zakai added: "We expect no real surprises in 2006", saying IVC projections are for continued stability and an annual investment level of \$1.4 billion, as was in 2005.

The average high-tech financing round was \$3.56 million, up 17 percent from the previous quarter and 4 percent from the first quarter of 2005. Seventy companies attracted more than \$1 million. Of these, 23 companies raised \$5 to \$10 million each, and four companies raised more than \$10 million each.

Israeli VC Investment Activity

In the first quarter of 2006, Israeli VCs invested \$177 million in Israeli companies, an increase of 35 percent from the previous quarter and very close to Q1 2005 levels of \$173 million. The Israeli VC share of the total amount invested in Israeli high-tech was 49 percent, with the remainder of capital coming from foreign investors as well as non-VC Israeli investors.

First investments accounted for 37 percent of total dollar investments by Israeli VCs in Q1, compared with 40 percent in the previous quarter and 50 percent in the first quarter of 2005. The average First investment by Israeli VCs was \$2.1 million, while the average Follow-on investment was \$0.9 million.

In Q1, Israeli VCs invested \$24 million in 10 foreign companies in addition to their investments in Israeli high-tech companies. This compares to \$14 million invested in foreign companies in the previous quarter and \$31 million invested in the first quarter of 2005. All Q1 2006 foreign investments were Follow-ons.

#### Capital Raised by Stage

In the first quarter of 2006, 22 Seed companies attracted a hefty \$50 million, 14 percent of the total capital raised – the most by Seed companies in five years (chart 2). The amount invested is up 127 percent from the previous quarter and an increase of 56 percent from Q1 2005.

"The increase in Seed investments indicates a positive sign for the future of the Israeli high-tech sector," said Zeev Holtzman, Chairman of IVC Research Center and Giza Venture Capital. "We can expect this trend to continue throughout 2006, which promises to be a peak year for Seed investments in Israel," he added.

Software companies attracted the largest share of capital from among the Seed investments – 44 percent – followed by Communications companies with 32



percent.

Early Stage (R&D) companies and Mid-Stage companies (up to \$10 million in revenues) each captured 41 percent of the total capital raised, while late stage companies attracted only 4 percent of investments in Q1 2006.

Capital Raised by Sector In the first quarter of 2006, 28 Communications companies

attracted \$86 million, 24 percent of the total capital raised. This amount reflects a decrease of 15 percent from the \$101 million raised in the previous quarter and a 28 percent decline from the \$120 million raised by communications companies in the first quarter of 2005. The Software sector followed closely with \$82 million raised by 25 companies - 23 percent of the capital raised. Life Sciences companies captured 19 percent, raising \$69 million.

### Sun: We will buy more Israeli companies

Less than two months after Sun Microsystems acquired Israeli start-up Aduva, a senior executive of the company-expressed interest in buying more companies here, according to United Press International.

"We will certainly acquire more companies in the Israeli market," Sun's vice-president of customer-networked services, Mike Harding, said.

Harding also said that his company planned to expand its research-and-development center in Israel, adding personnel in addition to those coming on board from Aduva. As such, the R&D center's manager, Michal Geva, will take on the added responsibility of integrating the company's new technology.

Sun's acquisition of Aduva was aimed at improving the communications system the larger company offers its clients. "We are very excited by this acquisition," Harding said via the report.

"This was an interesting opportunity for us since our Israeli R&D center is important to us and this acquisition will enable us to consolidate it."

Harding added that currently, Sun's customers report that it takes them five hours per month to configure their servers. Aduva's technology will reduce that to 15 minutes per month, Harding said.

## TraceGuard Technologies licenses TraceTrack Technology

TraceGuard Technologies Inc. (OTC BB:TCGD. OB) announced that it has reached a definitive license agreement with TraceTrack Technology Ltd. for its technology related to automatic trace collection needed for advanced detection of explosive materials in luggage.

This, combined with other technologies which are being developed by TraceGuard Technologies Inc., and are in the process of being filed for patent protection, provide TraceGuard with a wide base for the development of a line of products for the homeland security market.

The continuing stream of terror attacks across the world since 9/11 has further heightened concern for security in transportation systems, places of entertainment, and any location where people gather. Security agencies have identified concealed explosive devices and they pose a significant potential threat. Even a small amount of explosives can prove to be lethal.

Air transport security remains a top priority. The scale of the challenge is clear, when one considers that over 1.6 billion pieces of luggage, were screened in US airports alone during 2005. By 2010, this is expected to exceed 2 billion items.

At present, carry-on luggage is being flagged by X-Ray systems, a swab or a small handheld vacuum device is used to manually collect traces of suspected substances. This procedure is for the exterior surface of the bag. The swab is then manually run through a sophisticated trace chemical analyzer which checks for residue of explosives.

The first product launched by TraceGuard is CarrySafe, which is being developed to enhance and automate the collection of explosive trace particles from carry-on baggage. CarrySafe's uniqueness is in its ability to automatically collect the particles from outside and inside of luggage being screened for the possibility of containing explosives.

### PMC-Sierra to buy Passave for \$300M

PMC-Sierra Inc. said it would pay \$300 million in stock to acquire Passave Inc., a privately held

maker of chips, bolstering its product line used to power high-speed Internet gear.

The transaction, expected to close shortly, will be neutral to PMC's earnings in the short term and will add to earnings "in three quarters," the company said in a statement.

Based in Santa Clara, Calif., PMC-Sierra sells chips to Cisco Systems Inc. and other makers of Internet equipment used in high-speed broadband networks. The market for such gear is growing as telephone companies look to offer faster Internet connections to compete with cable service providers.

Passave, also based in Santa Clara, makes chips and related software tools that allow Internet service providers to offer voice, video and data services to households at rates higher than DSL-based networks. Passave had registered with U.S. securities regulators last August for an initial public offering of stock which is expected to raise about \$75 million.

The firm was founded in January 2001 and employs 150 workers worldwide in Israel, California, Japan, Korea and China, according to a statement from PMC. Passave's sales more than doubled to \$43.2 million last year, PMC-Sierra Chief Financial Officer Alan Krock said in a conference call. He did not give an annual net income figure but said Passave's gross profit margin was 60% of sales.

Passave first started making volume shipments of its chips in the fall of 2004 for customers Fujitsu, Mitsubishi Electric & Electronics, and Sumitomo Electric Industries.

At this point, nearly all of its technology is being deployed in Japan. Next up is China and Korea with United States to follow.

PMC-Sierra's shares have soared about 60% this year amid optimism the company will benefit from increased spending by telecom equipment makers and Internet service providers.

PMC-Sierra's management has said telecom companies are putting more capital to work, especially for cell-phone base stations that support the next generation of mobile phones known as 3G.



## Al Schwimmer to receive Israel Prize

The Israel Prize for lifetime achievement will be awarded to Israel Aircraft Industries founder AI Schwimmer.

Schwimmer was born in New York in 1917, to Eastern European immigrant parents. He studied aeronautics, received aviation mechanic and flight engineer

certification and eventually earned an American pilot's license.

In 1947, after serving in the United States Air Force, Schwimmer volunteered for the Haganah's purchasing unit. He helped smuggle four B-17 "flying fortress" bombers from the U.S. to Israel, after which he fled to Israel to evade Federal agents. When he returned to the U.S. in 1950 he was tried for antigovernment activities and stripped of his American citizenship. In 2000 he was pardoned by President Bill Clinton.

Hardly a household name even in his adopted Israel, Connecticut native "Al" Schwimmer is a figure of legend in Zionist circles for having run a secret and illegal American-based arms network which helped secure Israel's independence in 1948. Under his direction the network bought, borrowed and stole dozens of fighter aircraft, recruited scores of battletrained American pilots and mechanics and shipped tons of ammunition that proved critical to the war effort. With the help of a young Defense Ministry official and a close friend named Shimon Peres, Mr. Schwimmer went on to found an aviation firm that would become Israel's largest company, the Israel Aircraft Industries. Mr. Schwimmer is also a mythic figure in the intelligence community and among world arms merchants for his linchpin role in the Iran-contra affair of the mid-1980s and in fostering countless clandestine Arab-Israeli contacts over the decades.

The basis of most pardon requests, Mr. Schwimmer said, "is to fill out all sorts of papers asking for forgiveness, telling the Justice Department you're sorry, you did wrong, and you regret it, and you won't do it again. I didn't feel that way, and I still don't. I didn't feel I had done anything wrong, so I never applied."



# Double Fusion named most promising Israeli Internet start-up of 2006

Double Fusion was awarded the title of the Most Promising

Israeli Internet Start-up of 2006 at the TheMarker COM. Vention in Tel Aviv.

Double Fusion places advertisements in interactive Internet games. By working with game developers from an early stage, the company can integrate advertisements at any point without impacting the speed of the game. The ads can be targeted based on geography or time.

Double Fusion beat out two other finalists: Approtect and Hiro Media.

The company's cofounder and CEO, Guy Bendov,

will present his company's technology at Microsoft's headquarters. He aims to be invited to integrate Double Fusion's know-how into the giant company's software. In particular Double Fusion is interested in getting Microsoft's approval for using their technology on the Xbox 360.

Bendov expects Double Fusion to become a central player in advertising in rich media within five years, including IP television and mobile media

Over 2,000 participants attended the conference. "Bubble" and "Google" were the most prominent buzzwords at the opening sessions, which centered around the international Internet market - its direction, business models and potential for growth.

### Bank of Israel delivers upbeat report

In 2005, Israel's economic recovery continued and became even more firmly entrenched. GDP grew rapidly by 5.2 percent, led again by the business sector, which expanded by 6.6 percent. The integration of the Israeli economy into the global economy continued apace.

Macroeconomic policies in 2005 achieved its three numerical objectives: the rate of inflation at 2.4 percent was within the price-stability range, and both the budget deficit at 1.9 percent of GDP and the increase in public expenditure at about 0.3 percent were below their ceilings. Correspondingly the public-debt/GDP ratio declined significantly, although it remains very high in international terms. The main goal of the economic policy for the next few years should be to create the necessary conditions for sustainable growth, which will raise the overall economic well-being of Israelis, and make it possible to tackle social problems, in particular that of poverty. To do this, economic policy will need to maintain fiscal discipline, price stability and financial stability, while promoting reforms that will improve infrastructure and intensify competition in the economy.

Alongside all these, a continuous policy focused on reducing poverty is required. Improvements in the macroeconomic environment and in the state of the economy were reflected in many ways. These included the decline in unemployment from 9.8 percent at the end of 2004 to 8.8 percent at the end of 2005, accompanied by increases in the rates of both employment and labor force participation; the increase in the surplus in the current account of the balance of payments; and positive developments in the capital

markets. The above is quoted from the Annual Report of the Bank of Israel for 2005,



## Company Markets 'Kosher' Cell Phone

The "kosher phone" is real and its developers are serious about looking beyond the religious enclaves of Israel. Some Arab companies even have inquired

about the phone's main feature: keeping out sex lines and other worldly temptations.

"There's interest out there in a conservative phone," said Abrasha Burstyn, the chief executive officer at Mirs Communications Ltd., an Israeli subsidiary of Motorola Inc. (MOT) and pioneer of the kosher mobile that debuted last year.

The phones — carrying the seal of approval from Israel's rabbinical authorities — have been one of the most successful mergers of technology and centuries-old tradition in the ultra-Orthodox community, which is most widely recognized by the men's black garb based on the dress of 19th-century European Jews represents the main market.

The kosher phone is stripped down to its original function: making and receiving calls. There's no text messaging, no Internet access, no video options, no camera. More than 10,000 numbers for phone sex, dating services and other offerings are blocked. A team of rabbinical overseers makes sure the list of blocked items is up to date.

These are the same rabbis who have told followers to scorn television and radio. But mobile phones are considered just too essential in one of the world's most tech-friendly nations. The ultra-Orthodox account for about 7 percent of Israel's 7 million people.

Now MIRS is thinking bigger. Talks are under way to introduce a kosher phone to Jewish communities in the United States and other nations.

Israeli Arabs — about 20 percent of the population — have also taken notice of the phones as a possible option for those trying to protect conservative Islamic sensibilities.

Some Arab cell-phone providers see the same attraction. They have sought information from Mirs via envoys from Jordan, which has a peace treaty with Israel but Burstyn, declined to give further details of the contacts.

"This was a unique product for a unique brand of customer," he said. "But we see some potential beyond this niche market."

The kosher phone is an example of demand leading

the way for supply.

In late 2004, a special rabbinical panel was formed to study how to bridge the need for cellular phones and ultra-Orthodox codes.

Some saw the phones as a non-threatening convenience. Others believed the sophisticated "third generation" phones offered an unhealthy freedom: the ability to download pornography or allow young people to make furtive contact with the opposite sex — which is highly restricted in ultra-Orthodox society. The conservative magazine Family called the multitasking new phones "a candy store for the evil impulse."

The rabbis' solution — find a cell phone that's only a phone.

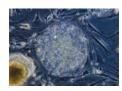
"They saw the future and were frightened," said one of Israel's most prominent attorneys, Jacob Weinroth, who was asked by the rabbis to approach Israel's four main cellular companies with the idea of the pareddown phone. "In 10 years, we may have commercials coming over the phone. The community wanted to keep the cell phones, but not allow this commercial world to enter their communities through them."

Mirs, Israel's smallest cell phone company in terms of market share was the first to take up the challenge. But instead of simply blocking the non-call services, the new phones were specially engineered with hardware to prevent upgrades or sharing chips with other handsets.

The kosher phone was ready last March, backed by an unusual sales force: 80 men and 10 women from Israel's ultra-Orthodox neighborhoods who went through a crash course in cell phones and door-to-door pitches. The classes were arranged to accommodate synagogue prayer schedules and Torah studies.

"These people were figures in their community. They started spreading the word in synagogues and wedding halls," said Matanel Shalom, chief of marketing at Sales & Direct Marketing Ltd., a Tel Aviv-based company hired to market the kosher phone.

By summer, more than 20,000 kosher phones were sold. But it was just a foothold in an estimated market of at least 180,000 cell phone users among Israel's 500,000 ultra-Orthodox. Two of Israel's other three cell phone players have developed their own kosher phones. The options now come in a range of styles and colors — from staid black to enamel red.



## Stem cell publication density highest in Israel

Israeli scientists are the most prolific authors on a per capita

basis of articles published in scientific journals related to stem cell research. The US is lagging in sixth place, and the UK falling ito seventh place, according to a recently published study by the Central Library of the Research Center Jülich in Germany.

Raphael Ball, director of the Central Library and an author of the study, said that the strong showing on a per capita basis of Israel and other small nations indicates a strong national commitment for stem cell research, as well as good use of scientific and financial resources. "It could be that the efficiency in the US and other major (stem cell) nations is not as high as it could be," Ball said.

From 2000-2004, Israeli scientists published 113 articles for each 1 million citizens, followed by Sweden with 82 articles for each 1 million citizens. Switzerland was next with 76 articles, followed by the Netherlands and Austria, according to the study, which was published in the March issue of the German science magazine "Bild der Wissenschaft."

Rounding out the Top 10 per capita were the US, with 47 articles per 1 million citizens, the UK with 44 articles, Canada with 41, and Germany and Finland each with 40 articles per 1 million citizens.

In terms of total number of stem cell publishing, however, US-based scientists have by far authored the most stem cell articles, some 13,663 in 2000-2004 -- 42% of total articles. Germany came in second with 10.2% of the total, followed by Japan, the UK, France, Italy, Canada, The Netherlands, Spain, and Sweden. Israeli scientists published 690 articles in 2000-2004. The stem cell publishing data was compiled by the Bibliometric Analysis Unit of Research Center Jülich's Central Library by reviewing titles, abstracts, and keywords of more than 6,000 natural science journals tracked by the Science Citation Index, a database operated by Thomson Scientific.

Dov Zipori, based at the Department of Molecular Cell Biology at Israel's Weizmann Institute of Science, told The Scientist that another reason for Israel's strong showing is that the region was the home to "pioneering studies" of bone marrow stem cells in the early 1960s. "The fact that the first steps in the development of stem cell studies occurred in Israel, formed a platform on which stem cell research developed in Israel," Zipori said.

The Israeli government is financially supportive of this research, he added. "We are not restricted to the same extent as are American scientists who are forbidden

to derive embryo stem cell lines when using federal funds," Zipori said

Highlights of the Results of the Networked Readiness Index Rankings 2005-2006

The United States regains the top position in the rankings, reflecting an impressive performance in the areas of ICT physical infrastructure, a broadly supportive market environment and high levels of business and government usage of the latest technologies. The United States continues to lead the world in technological innovation, helped by the excellent quality of its higher education institutions and extensive levels of cooperation between its research bodies and the business community. The United States also stands out for the availability of venture capital the key for start-ups to develop and prosper in what can be a risky sector. Also noteworthy is the prominent role assumed by the private sector in research and development as well as cooperation with the public sector in innovation and ICT penetration. Indeed, 17 of the 36 World Economic Forum Technology Pioneers 2006 come from the United States.

Singapore, in second place overall, maintains its commanding position, having achieved a top-three ranking for the fourth consecutive year. Singapore has an excellent regulatory environment, world-class levels of education and training, and a government that is committed to enhancing the use of the latest technologies across all sectors of the economy, all in a context of excellent macroeconomic management, and persistent efforts to improve the institutional environment for economic activity.

In other markets, Israel remains the top performer in the Middle East. Posting a rank of 19 overall, Israel shows excellent scores in areas such as technological sophistication, the quality of scientific research institutions, the availability of venture capital, cellular telephones and the latest technologies. Given Israel's excellent ICT performance, this year's Report includes a case study exploring the role of government policies which had in the development of a first-class ICT industry in the country. The United Arab Emirates (UAE) is the top performer in the Gulf region, with a rank of 28. Tunisia, in position 36, has the highest ranking in North Africa.

## BMC to buy Israeli start-up Identify for \$150m

BMC Software Inc. (NYSE: BMC) announced that it has offered to acquire Identify Software Ltd., a provider of

application problem resolution (APR) software. Under the terms of the acquisition agreement, BMC will pay approximately \$150 million in cash for the shares.

Founded by former Mercury Interactive Corp. (Pink Sheets:MERQE) employees in 1996, Identify Software develops optimization solutions for support processes in enterprise applications.

In February 2004, BMC expressed interest in investing in Identify but the funding round was already closed. The \$15 million round was co-led by the venture capital funds of Star Ventures and Evergreen Partners, with the participation by existing investors Earlybird, Formula Ventures, Infinity Funds, Intel, Mofet, NIF Ventures, UBS, and Vertex Venture Capital.

Founded in 1980, BMC Software is a leading provider of enterprise management solutions. BMC has offices worldwide and fiscal 2005 revenues of more than \$1.46 billion. BMC stated that it expects the Identify transaction, to close during the first quarter of 2007.

### Israeli Firm Explores Oil Shale Production

An Israeli company has proposed a plan to manufacture synthetic oil from oil shale that, if successful, could cut the country's oil imports by one-third.

"Theoretically, there is enough oil shale in Israel to provide the country with 50 years' worth of oil," Israel Petroleum Commissioner Ya'akov Mimran.

However, a myriad of economic, geologic, environmental and logistical concerns. mean hese reserves are difficult to get to and converting them would be "not at all simple," Mimran said.

Israel imports all of its oil -- 75 percent comes from Russia and the former Soviet Union, and the rest comes from West Africa, Egypt and Mexico.

Representatives of the Afsak Hom-Tov company met with the director general of the Ministry of National Infrastructure and several other energy officials last week. The company asked government representatives to set in motion the process of mining the shale and building a facility to convert it to synthetic oil, according to a ministry statement.

"The ministry promotes this initiative ... and will surely reduce (Israel's) dependence on world oil prices," Eli Ronen, the ministry's director general, said in the statement.

This does not mean Israel will cancel its oil orders any time soon, however. It signified a first step for the Hom-Tov company, but Mimran said, "We have a lot of work ahead of us ... it's too early to say when the factory would start producing oil."

Ronen's encouragement was also not an official endorsement of the project, Mimran said, emphasizing that environmental concerns still needed to be addressed.

The term "oil shale" is actually a misnomer, the World Energy Council says. The organic material that would act like petroleum is called kerogen. When processed, kerogen becomes a petroleum-like substance, but in order to be able to use it for energy, it must also be heated to around 932 degrees Fahrenheit.

The resulting substance is said to be of slightly better quality than the lowest grade of petroleum produced from conventional oilfields, but of lower quality than higher petroleum grades, the World Energy Council said.

There are two ways to process the shale. One way is to fracture the shale in its location, and then heat it to get gases and liquids. In the second process, the shale is mined, transported and then heated to about 842 degrees Fahrenheit. Hydrogen is then added to the resulting product and waste is then disposed and stabilized.

Both processes require a significant amount of water, which will present a problem for Israel which has a water shortage. To complicate matters, Israel's oil shale reserves are concentrated in the northern Negev Desert, an area with even less water than the rest of the country.

"The total energy and water requirements together with environmental and monetary costs (of producing) shale oil in significant quantities have so far made production uneconomic," a World Energy Council paper said.



## Ormat Technologies reports Results

ORMAT Technologies, Inc. (NYSE: ORA) announced financial results for the fourth quarter and full year ended December 31, 2005. For the

fourth quarter, total revenues were \$58.8 million as compared to \$56.2 million for the same period in 2004, an increase of 4.5%. For the year ended December 31, 2005, total revenues were \$238.0 million, an 8.6% increase over total revenues of \$219.2 million for the year ended December 31, 2004. Net income for the year ended December 31, 2005 was \$15.2 million or \$0.48 per share of common stock as compared with \$17.8 million or \$0.72 per share of common stock for the year ended December 31, 2004

Ormat Technologies Inc., sold 3.5 million shares at \$35.50 in a follow-on public offering, netting about \$117.2 million in proceeds.

### Transpharma-Medical Announces Promising Results



TransPharma-Medical Ltd., an Israeli-based specialty pharma company that develops pharmaceutical products based on its transdermal RF-MicroChannels

drug delivery technology, has announced promising results of first human clinical trials demonstrating delivery of human Parathyroid Hormone 1-34 fragment (hPTH 1-34) across the skin for the treatment of osteoporosis.

The results of the study, presented at IIR's Drug Delivery Partnerships 2006 conference held in London, prove efficient delivery of the osteoporosis medication into the patients' bloodstream with relative bioavailability in comparison to delivery by injection of over 50%. These results show the ability to deliver the required medicated dose via TransPharma's pen size system incorporating a 1cm2 small patch. Scientists at TransPharma have formulated the drug into a stable printed dry-form patch that allows for the hPTH (1-34) to deliver into the patients' systemic circulation with a peak blood profile.

Analysis of two biomarkers (ionized calcium and phosphorus) confirmed that the bioactivity of the delivered hormone was fully maintained.

The ViaDerm delivery system incorporates a device, which creates microscopic passageways through the outer layer of the skin allowing for therapeutic administration of a wide variety of drugs from a patch. This device designed to deliver the hPTH (1-34) is a hand-held pen-size unit, which provides a painless, very low-cost, easy to use application.

### PREDICTING SUCCESS

Weizmann Institute scientists create a method for predicting chemotherapy success that indicates how easily the drug can be delivered into the



tumor. Chemotherapy drugs, given intravenously, are the mainstay of the fight against cancer. But doctors know that sometimes these drugs effect a complete cure,

## The Export Institute's high-tech delegation visited i Italy

effect a complete cure, while other times they can be nearly ineffective. How to turn some of those failures into successes? A team of scientists at the Weizmann Institute, headed by Prof. Hadassa Degani of the Biological Regulation Department, has come up with a non-invasive, MRI-based method for predicting possible problems. The findings of their studies on animals, which appear in the journal Cancer Research, may, in the future, influence treatment regimes for millions of cancer patients.

Intravenous infusions rely on the bloodstream to carry drugs to where they are needed. Normally, a material such as a chemotherapy drug crosses into a tissue on the principle of concentration equalization — the material diffuses from an area of high concentration to one of low concentration until the concentrations become equal all around. However, in some cancers, even though the material "wants" to spread out evenly, fluids inside the tumor may be exerting pressure to prevent this. When the internal pressure created by these fluids rises above a certain level, it acts as a barrier that keeps drugs and other materials from entering the tumor.

The method the Institute scientists developed can measure, with a non-invasive MRI scan, whether the fluid pressure in cancer tissues is at levels that could render chemotherapy ineffective. Their research, which led to the method, was done with magnetic resonance imaging (MRI) equipment similar to that found in hospitals and clinics. A contrast agent often employed in MRI was used as a stand-in for chemotherapy drugs, and this material was injected into special mice with different cancerous growths. The team created computer algorithms (instructions for computers) that allowed them to verify the connection between the amount of material that found its way into the growth and the pressure of the fluids inside the tumor tissue. The Weizmann Institute team's research, as well as that of other research groups, shows that this relationship can differ from one animal to the next, from one human to the next, and even from one tissue to the next in the same animal.

Prof. Degani says that, ideally, the fluid pressure inside tumor tissues would be checked using the MRI method she and her team developed before a patient begins chemotherapy. If the pressure is discovered to be high, it might be possible to reduce it by various means, such as drugs similar to those for lowering

blood pressure. The method, if it proves successful in clinical trials, might have the potential to significantly increase the success rate of chemotherapy.

### Israeli robot wins first place



According to a recent report in a an Israeli daily, ITV 4X4 made by Israeli students from Misgav high school took dour first place medals and beat out competitors from around the world at the annual Trinity College Fire-Fighting Home Robot contest. Israeli high school students.

Over 100 robots, from dozens of countries participated in the contest.

### Beijing metro selects NICE security solution

NICE Systems (Nasdaq: NICE; TASE: NICE) announced that it has been selected by Beijing Metro to supply its next generation security solutions to help enhance the safety and security at more than 20 stations of the city's subway system.

The project is part of Beijing's massive campaign to upgrade its subway system's security network in preparation for the 2008 Olympics.

All Beijing Metro stations connected to the security system will be monitored from the station monitoring room and from the central command and control center, giving security personnel the power to identify risk, make optimal decisions, and take action that improves security.

NICE's advanced real-time distributed digital video solution will spot suspicious packages left behind on a crowded subway platform and automatically alert security personnel. The solution will also be utilized to automatically detect unauthorized entry into secured areas.

### IMF predicts 4.2% economic growth

The International Monetary Fund predicts that Israel will sutain robust economic growth this year and next. The fund's analysts predict growth averaging 4.2% in 2006 and 2007, compared with 5.2% in 2005.

In its annual forecast, the IMF wrote that despite the security and political risks Israel faces, its prospect

Estimates that expected telecommunications and information security transactions could reach a volume of \$20 million

A successful visit by the Export Institute's delegation that returned from Italy last week was reported by David Artzi, Chairman of the Export Institute

After checking with the delegation members, the Export Institute estimates telecommunications and information security deals between Israeli and Italian companies will total some \$20 million over the next three years. The subject at hand is cooperation and transactions expected to be signed in the near future between the Israeli companies that participated in the delegation: CheckPoint, Cyber-Ark, Lynx Photonic Networks, PineApp Ltd., Safend, Verint, RadWare, Aladdin Knowledge Systems, ControlGuard and PortAuthority Technologies, and the Italian companies: Telecom Italia and Wind.

The Export Institute notes that over 250 companies and organizations in Italy attended meetings with the Israeli high-tech delegation, with assistance from the Italian Ministry of Communications and the Economic Attaché in Rome.

The Export Institute reports that the Italian market for the information technology industry is estimated to be billions of dollars.

The volume of Israeli exports to Italy in information technology and telecommunications came to \$53 million in 2005, constituting an increase of 33% over the preceding year.

Notably, during the seminar, Dr. Zanasi, a member of the European Security Research Advisory Board, presented the Israeli and Italian participants with possibilities for submitting projects for tenders that will be issued by the European Union as part of the European Security Research Program, for a total of 4 billion Euros in the next few years. He explicitly emphasized the possibility of integrating Israeli companies by virtue of the association agreement of Israel with the European Union.

The Chairman of the Export Institute said that more than

700 Israeli companies are currently active in the realm of information technology and telecommunications.

### Agrotechnology in Israel

Israel's agricultural sector is characterized by an intensive system of production stemming from the need to overcome the scarcity in natural resource, particularly water and arable land. The innovative irrigation industry has a worldwide reputation and more than 80% of its production is exported.

The country's Agritechnology Fair will be held early in May and in our next issue we will report on it.



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