ISRAEL HIGH-TECH
& INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES **JOSEPH MORGENSTERN, PUBLISHER**
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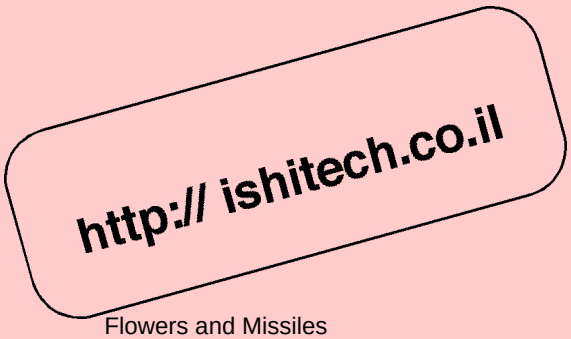
Flowers and Missiles

The export sales price for one flower stem grown in Israel's Negev wilderness is five times the cost it takes to grow one. ..Leora, is a young flower farmer, assisted by only by a few laborers, produces no fewer than 3,000,000 flowers a year. These include new species of flowers and flower bulbs grown with fresh, brackish and hot water, all under plastic cover. Israel has attracted attention to its flower growing activities as it is the world's leader in flower exports to Europe, according to statistics provided by the Flowers Growers Association. Flower exports gross about $1.5 billion, which is about 30% of all flowers imported by Europe.Leora has been selling flowers to Europe for many years, and though located vey far from her markets she also ships flowers to Boston florists on three-day notice.

Israel's rapidly expanding pharmaceutical industry produces drugs at a 40% or greater profit margin. The country has a proven capacity, for producing goods that find overseas markets. Were the country left to its own devices its Gross Per Capita Product would be $32,000 and not $16,000, as at present.
Israel unfortunately, is being pushed continuously to accelerate the development and production of defense weaponry. Since its inception, it has been in the throes of a war economy ande since 1948 it has endured a state of war. Never at peace with its neighbors and always under the threat of military or terror attack it always falls short of reaching its true potential.
The need for defense weaponry has always existed. Early in its existence it was dependent for weapons on the USA, France and Britain. Until 1967 France almost exclusively, supplied airplanes. Dependence on foreign suppliers left Israel in dire straits when France refused to supply arms to Israel as "punishment" for its victory against the seven aggressor Arab nations, in the Six Day War in 1967.

In the 20 years after that war, it continued on a course of building its domestic arms industries. A few years later, it proved its abilities when it produced a fighter jet, though its production was discouraged by the US. Rafael, the Arms Development



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Research Authority, began to develop missiles that were intended to protect Israel, but subsequently found eager takers overseas.

In 2004 and likely in the years that follow Israel will become a major defense supplier. Its Phalcom Early Warning platform, the Arrow Anti-Ballistic Missile System, its smart missiles and electronics along with others should reach a $5.0 billion annual sales level.

The Home Front Security requirements in the United States, have given birth to a rapidly upward moving industry in this country.
Many countries are envious, as Israel continues to receive military orders from Turkey, India and China, all of whom consider Israel as a trusted, quality supplier.

However, the economic margins from defense sales are small. Offsetting transactions are often demanded. Israel's water supply has improved over the past two years, but the Government has explained that its purchase of massive amounts of drinking water from Turkey was connected to defense sales.

Kenneth Galbraith and other economists, have pointed out that war economies are economically counter productive as they divert resources from those sectors of the economy that need the greatest support.

Defense manufacture denies its people of the fruits of productive labor wherein the market and not defense considerations dictate what will be produced. There is no weapons system whose profit margin can match that of the Negev flower or smell as sweet.

Until peace comes to this region we shall write more and more about the sophistication of the weapons industry, though we would prefer report about flowers and robots that can automatically pick water melons.

Science Corner

Metastasis of Colon Cancer Cells Reversed in the Laboratory

Weizmann Institute scientists have succeeded in reversing the metastatic properties of colon cancer cells, in vitro. The findings, published in the Nov. 24 issue of The Journal of Cell Biology, uncover a key process involved in the metastasis of colon cancer cells and raise hopes that target-specific drugs might be devised to prevent, or reverse, the invasive behavior of metastatic colon cancer cells. Colon cancer is the second most prevalent type of cancer in men and third in women in the Western world.

The researchers, headed by Prof. Avri Ben-Ze'ev of the Molecular Cell Biology Department, have confirmed that the invasive behavior of colon cancer cells results from the malfunction of adhesion-related ("cell-gluing") mechanisms.

Dance of the Molecules

Until now, scientists studying the workings of ultramicroscopic forms have had to rely on the scientific equivalents of still photos, something like trying to fathom driving by looking at a photograph of a car. Now, Prof. Irit Sagi and her team, of the Structural Biology Department, are using new and innovative methods developed at the Weizmann Institute to see real time "video clips" of enzyme molecules at work. The resolution of these animated clips is so fine that the scientists are able to see the movements of individual atoms within the molecule.

The challenge facing the Weizmann team was to capture, step-by-step, the complex process (the whole of which takes place in a tiny fraction of a second.Their pioneering method was published in Nature Structural Biology. It was hailed as the first study of its kind, a potentially important tool for biophysicists.

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To obtain the “live action” footage, Sagi and her team use a technique akin to stop-action photography, but on an infinitely smaller scale. They literally freeze the process at certain stages, using advanced methods of chemical analysis to determine the exact molecular lay-out at each stage. The most difficult part, says Sagi, was figuring out the correct time frames that would allow them to see each phase of enzyme activity clear-ly.

Weizmann and Cambridge University Tie for First Place in Physics Competition

“It will be the most complex machine ever built,” says Weizmann Institute Prof. Ehud Duchovni of the new particle accelerator being built in CERN (on the Swiss-French border). Over 2,000 physicists from about 50 countries are preparing for an experiment that will take place there, hopefully in 2007.

One of the main objects is to find the particle that makes up all mass – a particle that today exists only in theory and is called the Higgs. Other than helping us understand the universe, the finding of the Higgs might open the door to “new physics,” the laws of which physicists today can only try to imagine.

Once the particle accelerator is built and a particle detector, called ATLAS, constructed (no easy task, since the construction of ATLAS's many components has been divided among research teams in 50 coun-tries – and they must all fit each other exactly at the end of the process), the big challenge will be to interpret the data.

The ATLAS detector will receive more data at every given moment than all of the world's telephone net-works combined. And how does one detect “new physics” phenomena if one does not even know what new physics is? Thus the organizers of the project decided to conduct a “dry run” – to simulate the extent and possible nature of the data and conduct a compe-tition to see how the data is best interpreted.

Several small hints for a possible new physics were hid-den among the millions of simulated events and the groups were challenged to find as many hints as possi-ble and ‘publish’ their findings.

Tying for first place were the Weizmann Institute of Science and Cambridge University in the UK.

FDA Approval Granted for Psoriasis Treatment

A new technology developed by Israeli dermatologists that has been proven safe and effective in treating psoriasis, vitiligo, atopic dermatitis and leuko-derma, was given clearance by the U.S. Food and Drug Administration, to be marketed in the USA.

MultiClear , manufac-tured by CureLight Ltd of Or Akiva, Israel, is the first computer-con-trolled, targeted pho-totherapy system which utilizes both UVB and UVA rays. It will be widely available in the U.S. by March 2004, accord-ing to company officials.

"It is an effective non-drug alternative, combining the emissions of UVB and UVA from a single optical delivery system, allowing optimal high- intensity, tar-geted UV band selection for the treatment of these common skin disorders. It protects patients from exposing their entire bodies to harsh and risky treat-ments of the past," he said.

"Oral tablets, injections, or full-body light boxes can-not zero in on the affected areas, and thus they run the risk of harming the patient systemically or dam-aging other parts of the skin. Our technology acts only on the affected area," said Harth. "The MultiClear's computerized system allows the exact matching of wavelengths and doses to optimally treat specific skin disorders."

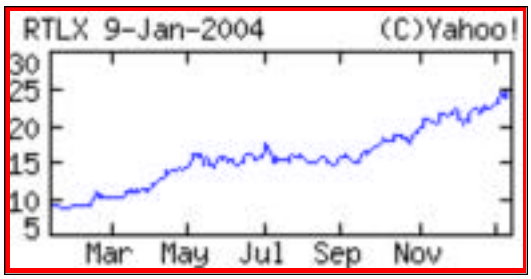
Dr. David J. Friedman, board-certified dermatologist and former Brown University assistant professor, uses MultiClear for his patients. He said, "It's safe, responsive and gets good aesthetic results as well. The choice between using UVB, UVA or tailored combinations of UVB and UVA in one system results in fast improvement of psoriasis, and repigmentation of hypopigmented lesions such as vitiligo and stretch marks. In some vitiligo patients repigmentation may start after the fourth treatment. Typical treatment lasts about five minutes and that's another real plus. Usually less than 10 treatments are needed."

Psoriasis is one of most common skin disorders treated by MultiClear . It affects more than 7 million

people worldwide and 200,000 cases are diagnosed each year in the U.S. alone. Current therapies include prolonged use of topical creams, full-body lightbox treatments repeated 30-40 times or life-long weekly injections.
Vitiligo is a pigmentation disorder affecting roughly 50 million people or about two percent of the world's population. Atopic dermatitis is a common eczema disorder that also affects millions, usually appearing first in childhood and then persisting throughout an adult's life.

Retalix Projects 30% Sales Growth in 2004

Retalix (Nasdaq: RTLX; TASE:RTLX) anticipates that revenue for 2003 will exceed $91 million, and meet its prior projection of 20% increase over 2002. Additionally, Retalix anticipates that its net profit for 2003 (excluding a one-time capital gain realized in the fourth quarter of 2003) will exceed $7 million,



and thus exceed its prior guidance of a 20% increase over 2002.
The company also announced that it acquired OMI International Inc., a supplier of software used to manage grocery and warehouse supply chains.
Retalix said it had agreed to pay $13.6 million in cash and $5 million in 226,040 restricted shares of Retalix to acquire all the shares of privately held OMI of Dallas, Texas. Retalix is still left with $12m.in cash, which it has said may be used for additional acquisitions.
OMI will provide Retalix with expertise in managing back-office operations for the grocery and should provide a good fit for Retalix, an acknowledged leader in managing customer transactions at super-market checkout counters. OMI's sales in 2003 are estimated at $14m.
OMI's software systems are in use in 58 of the top 100 retail grocery organizations in North America and in over 40 percent of the America's wholesale grocery business. The company has affiliates in Britain, France, Spain, and South Africa.

Retalix is based in Ra'anana, Israel, with U.S. head-quarters located in Dallas,Texas.

The company's software is used by supermarkets, restaurants and retailers to manage customer transactions, including U.S. grocery chain Publix and Swedish home furnishings retailer Ikea. The company operates in 44 countries.
Retalix expects that revenues for 2004 will grow by approximately 30% as compared to 2003, includ-ing the anticipated contribution from the acquisi-tion of OMI International Inc..
Retalix expects that net profit for 2004 will be approximately $5 million.
Retalix is one of IHTIR's favorite companies. We have followed it for nearly ten years. Over the past 12 months Retalix shares have appreciated by 155%.

Israel Rises to 29th in "Index of Economic Freedom"

Israel's ranking in the "The Wall Street Journal" and Heritage Foundation's "2004 Index of Economic Freedom" has improved.

The index runs from one to five: one point means complete economic freedom and five points means no economic freedom. Israel's score has steadily improved for the past five years: 2.7 points in 2000, 2.6 points in 2001, 2.55 points in 2002, and 2.4 points in the 2003.

Israel was ranked 29th out of 155 countries in 2004, and second, after Bahrain, among Middle Eastern and North African countries.

The Index of Economic Freedom classifies economies into four groups: free, mostly free, mostly unfree, and repressed. Israel is classified as mostly free.

The 2004 Index of Economic Freedom's editors give credit to Minister of Finance Benjamin Netanyahu and say that if his policies prevail, Israel will see more privatization and less public-sector growth.

The world's freest economy in 2004 was Hong Kong, followed by Singapore, New Zealand, Luxembourg, Ireland, Estonia, the UK, Denmark, and Switzerland.

Foreign Investment Soars to $6.0 b.

Foreign investment in Israel has risen sharply, due to the upgrading of the country's risk rating on

international markets, the receiving of the US loan guarantees, the approval of the economic plan, and the high real shekel interest rate.

Foreign investment in Israel totaled $6 billion in 2003, 150% more than the $2.4 billion invested in 2002, according to a report prepared by Bank of Israel.

Total direct foreign investment in Israel was $3.3 billion in 2003, compared with $1.6 billion in 2002. Total foreign investment in negotiable securities was $2.7 billion, 3.4 times the $800 million invested in 2002.

Ozer stated that foreign holdings in Tel Aviv Stock Exchange (TASE) shares rose 22% in 2003 to $28 billion, from $23 billion in 2002. Total foreign holdings in Israeli securities overseas rose 43% in 2003 to $20 billion, from $14 billion in 2002.

Overseas investment by Israelis totaled $2.9 billion in 2003, 22% less than the $3.7 billion invested overseas in 2002. Direct overseas investment by Israelis totaled $1.4 billion in 2003, 17% more than in 2002 and 75% more than in 2001. Israelis' investment in overseas negotiable securities totaled $1.5 billion in 2003, 40% less than in 2002.

Israel in Numbers at the Outset of 2004

Population: 6,640,000

Total area: 20,770 sq. km

GDP: $104.6 billion

GDP growth rate: –1.0%
GDP per capita: $15,759

Major exports: electronic communication, medical and scientific equipment, chemicals, chemical products and cut diamonds

Exports of goods and services: $38.6 billion
Major export trading partners: US 48.2%, Belgium 7.4%, Germany 6.0%, UK 4.8%, Hong Kong 3.6%
Major imports: machinery and equipment, fuel, chemicals Imports of goods and services: $54.7 billion

Major import trading partners: US 23.5%, Belgium 10.2%, Germany 7.9%, UK 6.7%

Foreign direct investment (net): $524.6 million

Foreign investment in Israel during the three years of the intifada, 2001-03, totaled $12.1 billion, including $8.4 billion in direct investment and $3.7 billion in negotiable securities.

Overseas investment by Israelis during the three years of the intifada, 2001-03, totaled $8.5 billion, including $3.4 billion in direct investments and $5.1 billion in negotiable securities.

Markstone Capital Wins $200 m. and Closes Fund with $400m.

G. Alan Hevesi is state comptroller of the State of New York. He commands a workforce of 2,400 people. But his real power derives from his position as sole trustee of the NYSCRF, or the New York State Common Retirement Fund. Hevesi decided that NYSCRF will be investing $200 million in Markstone, an investment fund that means to raise $500 million for investment in Israel.
One of Israel's daily newspapers recently nominated Ron Lubash, the managing partner of Markstone as the Man of the Year. In our July 2003 issue in our editorial titled Winning Investors Get their Timing Right we wrote about Ron Lubash . Sincfe then a number of our readers have expressed an interest in investing in Markstone Capital. We continue to believe that it will be a big winner

Pitango, Giza, Genesis and Vertex are Most Active VCs

The IVC Research Center has published its compilation of the most active Israeli venture capital funds of 2003. Topping the list of active investors based on First investments is Pitango with eight new portfolio investments in 2003 (compared to four in 2002), three of which were in the life sciences sector and three in IT. Giza, Genesis and Vertex trailed Pitango with six First investments each. Genesis and Vertex investments were mostly in the IT and communications sectors, while Giza opted for the life sciences sector in four of its six new investments. Guy Holtzman, IVC General Manager, observed that "Israeli VC funds were focused on supporting their portfolio companies over the last two years. Only recently have we seen a rise in First investments. This trend is likely to continue in 2004."

Pitango and Genesis were the funds that made the largest number of total deals (First and Follow-on) with 18 each. Israel Infinity, Israel Seed and Evergreen made 15, 14 and 13, respectively, Giza

and the Challenge Fund each made 12 deals.

In 2003, First or new portfolio investments represented 47 percent of the total amount invested by Israeli venture capital funds. This is a 10% increase from 2002 when First investments comprised just 42 percent of the total.

IVC estimates that Israeli high-tech companies raised $1 billion in 2003 from Israeli VCs and other investors. Capital raising for 2004 is projected by IVC to reach approximately the same level.

Where the VC Funds Invested

The Money Tree Survey conducted by Kesselman & Kesselman/PricewaterhouseCoopers (PwC), indicates that the level of investment in high-tech companies, backed by venture capital funds in the fourth quarter of 2003, was similar to the level recorded in the preceding quarter, both in terms of the number and total value of the transactions. 74 high-tech companies raised $ 192 million during the fourth quarter, as compared to $ 190 million that was invested in 76 companies the preceding quarter. The average investment in each company was $ 2.6 million.
A closer view of the funds shows that 71 venture capital funds participated in the survey this quarter, 25 of which have made no investments during the quarter. Five funds had not made any investments in 2003 and 8 local funds had only made investments in one quarter of the year.

The life sciences sector is attracting an increasing share of investments by venture capital funds. This trend may prevail even further, in view of the Initial Public Offers of venture backed companies in the United States. In the fourth quarter of the year the life science sector was in the lead. Five out of 17 IPOs in the fourth quarter were in the life sciences sector. This alone, is sufficient to encourage funds to invest additional resources and effort in this direction.

Communications maintained the lead in investments during the fourth quarter of the year, attracting a total of $ 56 million (29%), which was infused into 25 companies in this sector.

The software sector maintained its relative share in total investments in monetary terms (25%), alongside a slight decrease in the number of transactions (19% as compared to 25% in the previous quarter): 14 software companies attracted investments totaling $ 48 million, two of which, accounted for $ 21 million.

The life sciences sector recorded an increase in the volume of investments (in monetary terms) and maintained a similar number of transactions. This increase is due to a large transaction of $ 13 million in the field of medical devices. In this quarter, $ 40 million was infused into 19 companies, compared to $ 16 million invested in 21 companies in the previous quarter. The field of medical devices attracted investments of $ 29 million, which was invested in 14 companies. 5 biotechnology companies raised a total of $ 11 million.

A Venture Capitalist Puts Together a Nanotech Merger

Harlan Jacobs is the founder and president of Genesis Business Centers, Ltd., in Minnesota . Genesis is a diversified high tech, for-profit incubator program. Jacobs has had successful experience in investing in Israeli high-tech companies. He recently contacted us and drew our attention to a major article in the NY Times on Israeli nanotechnology.

The article draws attention to Cima Nanotech, based in the town of Caesarea, Israel. In March 2002, Jacobs flew to Tel Aviv to present the Aveka business plan (Aveka was a client of Genesis) to deploy its nanotech division into a separate subsidiary. His first stop was a meeting with Zwi Vromen, the Senior Managing Director of the Millenium Fund. In turn, Zwi proposed a merger with Nanopowders Industries Ltd of Caesarea, an investee of the Millenium Fund. This merger resulted in the formation of Cima Nanotech, a Minnesota company with an Israeli subsidiary. Initially its primary products will be transparent conductive coatings and inks for the electronics market. “Subsequently, Cima closed on a venture round that was largely subscribed by Japanese venture funds and a Japanese strategic investor with whom it will establish a joint venture program to manufacture nanometal particles for conductive inks. A good number of very high wage jobs will be created in Minnesota as a result of this merger and the Japanese investment,” says Harlan Jacobs. He added that Israel has now supplied critical early stage venture capital for two of his start up companies in Minnesota.

Facts and Figures on Israel's' Usage of High Speed Internet

Income from sales of fast Internet access in Israel passed the NIS 500 ($115m.) million mark in 2003 - up almost 200 percent from 2002 mark of NIS 180 million ($41m.). Bezeq, and three independent cable companies supply the service.

Broadband Internet access contributed NIS 200 million in net revenues to Bezeq in 2003. The company is currently earning NIS 100 million a quarter in revenues from fast Internet, having invested $160 million in ADSL infrastructure over the past five years. Bezeq launched its ADSL services to the public in August 2001 and by the end of 2003, the number of its fast subscribers had reached 430,000. The cable television companies serve another 220,000 fast Internet customers. The cable firms' combined revenues for 2003 are about NIS 2.1 billion ($480m.).

Internet service providers (ISPs) had net revenues of NIS 220-240 million ($53m.) in 2003. The ISP market is highly competitive. Fast Internet had reached an estimated 31 percent of households in Israel by the end of 2003, the third-highest rate in the world, up from 12% at the end of 2002.

Most of the growth in fast Internet in 2003 came from dial-up modem users who switched to fast Internet hook-ups.

Industry sources estimate that this year, the market will reach saturation level and the rate of growth in fast Internet usage will drop drastically.

FDA Ready for Greater Cooperation

The U.S. Commissioner of Food and Drugs, Dr. Mark B. McClellan disclosed at the IsraPharm 2004 conference on life sciences and pharmaceuticals that the U.S. Food and Drug Administration (FDA) is discussing the possibility of signing a secret agreement with Israel which would expedite contacts with the FDA.

The FDA is responsible for approving the sales of food products, pharmaceuticals and medical equipment in the U.S. Israeli companies wishing to enter the American market must first obtain FDA approval. According to McClellan, the secrecy agreement would allow the two sides to exchange information, such as the safety of food products, before the data is released to the public.

High-Tech Exports Total $10.7b. in 2003

Israel's electronics and software industries are showing signs of recovery, according to Israel Association of Electronics and Information Industries director general Mr. Uri Har. He added that sales and exports for 2003 remained at 2002 levels, however, sales have grown in recent months.

Sales by the high-tech industry totaled $12.98 billion in 2003. Medical equipment exports grew 11% to $897 million, and security equipment exports 2.8% to $1.59 billion. 300 new employees have been hired in recent months, paralleling the growth in sales and the first growth in employment in 2003.

High-tech exports totaled $10.68 billion in 2003, the same as in 2002, and industrial equipment exports were up 1.1% to $1.48 billion.

Har also declared that exports in the telecommunications industry, during the global recession, had fallen 7.1% to $2.28 billion. High-tech output rose from $236,000 per employee in 2002 to $241,000 per employee in 2003.

Glucon Raises $13 million

Israeli start-up Glucon, a developer of noninvasive glucose-monitoring devices for diabetics, has raised $13 million. The company's first round of financing took place in 2000.

The current round was led by the Giza venture capital fund, which invested $6 million in the company. Other participants included the InnoMed fund, hitherto the company's sole investor, which put in another $3 million; the Infinity fund, which invested $2 million; and a leading Japanese distributor of medical equipment, who invested $4 million.

Glucon was founded in 2000 by Israeli scientists Ron Nagar and Dr. Benny Pesach. It employs 15 engineers, physicists and algorithm experts. The company's product, which allows continuous, noninvasive, real-time monitoring of blood-sugar levels, is aimed at both the clinical and the home markets. The device, which is currently undergoing extensive clinical trials, uses photoacoustics to eliminate the need for sticking a needle in the patient's finger - the current standard method of testing glucose levels.

Nagar, the company's CEO, said that the current round of financing would enable Glucon to finish developing its product and complete the clinical testing needed to obtain approval to market it.

The market for diabetes testing is enormous, totaling an estimated $4 billion a year in the United States alone. Not only are there some 16 million diabetics in the U.S., but many must check their glucose levels several times a day. "The main problem with these companies was that their solutions were based on test averages rather than on exact data," he explained.

Viagra -- Responsible for Majority of Spam

Commtouch (Nasdaq:CTCH), a developer and provider of proprietary anti-spam solutions, said its spam detection center saw a 33 percent increase of spam outbreaks in December 2003, with over 44 percent of the spam outbreaks having personalization and random characters. In over 28 percent of spam messages spammers are using text tricks in the message subject in which a word in the subject header is slightly modified to escape detection by content filter solutions.

For example some of the ways spammers are modifying the word Viagra to get to user email mailboxes through content filtering and anti-spam softwares include: V I @ G R A , V--1.@--G.R.a, \./iagra, Viiagra, V--i--a--g--r--a, V!agra, V1agra, VI.A.G.R.A, vi@gra, vIagr.a, via-gra, Via.gra, Vriagra, Viag*ra, vi-agra, Vi-ag.ra, v-iagra, Viagr-a, V'i'a'g'r'a', V*I*A,G,R.A, VI.A.G.R.A..., Viag\ra!, Vj@GRA, V-i:ag:ra, V'i'a'g'r'a, V/i;a:g:r:a, V i a g r @, V+i\a\g\r\a, V;I;A*G-R-A, V-i-a-g-r-a, V*I*A*G*R*A , V-i-@-g-r-a, VI@AGRA, Vi@gr@, VlAGRA, V\i\a.g.r.a, V1@GRA, v_r_i_a_g_r_a, V\i\a:g:r:a, V-i-@-g-r-@, Viag(ra.

Spammers text tricks cost Enterprises and e-mail users money and resources in lost productivity and resources to tune their anti-spam software to block the new tricks of spammers. Commtouch's unique recurrent pattern detection (RPD(TM)) anti-spam technology blocks all spammers tricks automatically minutes after spammers start using them, by analyzing a significant sample of the internet e-mail traffic in real-time.

Commtouch provides Anti-Spam Gateway for enterprises which allow IT managers to protect their users from Spam and Anti-Spam engine which let Security and messaging OEM partners an easy way to integrate and offer Commtouch Advanced Anti-Spam protection in their Software, Service or appliance products.

Heznek is Active in Seed Investments

Venture capital funds invested $48 million in 23 Israeli seed companies in January-September 2003. Heznek, the Government Seed Fund participated in 12 of the investments.

Heznek's investment model is innovative. The state invests in seed companies' shares, while giving the company the option of buying out the State at the original investment price. Heznek was founded in late 2002 to provide incentives for venture capital investments in seed companies.

Heznek, which operates under the Office of the Chief Scientist, is now summing up its first year of investment activity. Heznek invested in 12 new companies and gave 36 investors "approved investor" status during 2003. Heznek will invest NIS 50 million over the coming two years, while venture capital funds could invest at least the same amount in matching funds, for a total of over NIS 100 million in seed investment.

Most of Heznek's portfolio companies are in communications and software, and one is a life-sciences company.

Motorola Israel to Provide Communications for Athens Olympics

Motorola has announced that its Commercial, Government and Industrial Solutions Sector (CGISS), working with Science Applications International Corporation (SAIC) and Siemens, has been selected to provide the secure two- way radio communications system that will be used by public safety agencies, during the 2004 Olympic Games in Athens.

The contract value to Motorola for the Athens public safety TETRA system will exceed $25 million. In addition there will be a 10-year provision for the supply of services and support. It is believed that part of the work on the contract will be carried out by Motorola Israel. The public safety communications

system for the Athens Games will be based on the TErrestrial Trunked RAdio (TETRA) standard, the only open digital trunked radio standard which is defined by the European Telecommunications Standardisation Institute (ETSI) to meet the needs of the most demanding professional mobile radio users.

The consortium stated that deployment of the TETRA system had already commenced, with the network expected to be fully installed and operational by April of 2004.

Keryx Acquires Access Oncology for its Three Cancer Drugs

Keryx Biopharmaceuticals, Inc. (Nasdaq: KERX, London AIM: KRX) has announced its acquisition of Access Oncology, Inc.,a privately-held cancer-focused biotechnology company.

Access Oncology was founded in 1999 by Michael S. Weiss who is also chairman and CEO of Keryx. Since 2001, Access has been headed by president and CEO, Dr. I. Craig Henderson, a well-known breast cancer clinician and researcher.

"This is a very important day for Keryx shareholders. This deal immediately fills out our oncology franchise with three very exciting drug candidates and adds tremendous expertise in cancer drug development. Adding three promising clinical-stage oncology compounds to our lead drug candidate, KRX-101, is a major achievement for Keryx," Weiss said.

FDA Approves Agis's Fungal Treatment

Agis Pharmaceuticals(TASE:AGIS) reported that it obtained US Food and Drug Administration (FDA) approval for immediate marketing of its 2% ketoconazole shampoo. The shampoo is a generic version of McNeil Consumer & Specialty Pharmaceuticals' Nizoral preparation for the treatment of fungal infections.

Agis is the only company so far to obtain approval for a generic version of this preparation. Annual sales of the brand product in the US totaled $45 million in 2003.
The Agis board had approved a NIS 54.79 million interim dividend. amounting to NIS 2 per share.

Taking one-time revenue for the sale of a drug marketing franchise into account, Agis is expected to

post a NIS 145.2 million profit on revenue of NIS 1.71 billion for 2003. A NIS 38 million profit on revenue of NIS 433.2 million is projected for the fourth quarter, compared with a NIS 34.6 million profit on revenue of NIS 425.3 million in the third quarter.
In an unrelated event, Agis Industries (TASE:AGIS) president and chairman Moshe (Mori) Arkin, who owns the controlling interest in the company, recently sold a block of shares worth NIS 200 million at a 5% discount on the share's opening price to a group of institutional investors, mostly from the UK.
Agis also announced that it and its partner, Barr Laboratories, received U.S. Food and Drug Administration tentative approval for Modafinil tablets, in 100 and 200 mg dosages.
Modafinil is the generic version of Provigil, made by Cephalon, to treat chronic tiredness. Annual sales, from November 2002 to November 2003, totaled $289 million.

UBS, the securities arm of the Union Bank of Switzerland, released a research update on Agis, raising its price target to NIS 165, from NIS 148.5 per share, on the back of two new approvals. It also reiterated a Buy 1 rating.

Teva Invests in Vascular Biogenics,

VBL was founded by Prof. Dror Harats, an expert in atherosclerosis and vascular biology. The two major drugs under development at VBL, are expected to reach the clinical testing stage in the course of the next two years.

"Atherosclerosis is one of the main factors for cardiac disease mortality," says Prof. Harats. "VBL's drug treatment, based on cholesterol derivatives, completely stops the progression of the disease

and decreases the local inflammation which is known to take place in the artery.

"The treatment, aimed at helping patients suffering from atherosclerosis, including patients who have undergone myocardial infarction or cerebral stroke as well as prophylactic treatment at a later stage for patients with high risk for arteriosclerosis complications, will be administered in pills or capsules.

VBL's cancer combating solution is essentially a genetic treatment, administered by injection into the blood stream and attacks the walls of the blood vessels that provide oxygen to carcinogenic metastases.

"It has been known for a long time that malignant tumors generate a blood vessel system around them that supplies oxygen and other nutrients to the tumor. Focused destruction of the blood vessel system that supports the tumor will result in its destruction and consequent remission of the disease," says Prof. Harats. "Focusing on the blood vessels near the tumor facilitates the development of a more efficient drug with fewer side effects."

The development is designed to treat patients with metastatic cancer, as an addition to chemotherapy or radiological therapy. Clinical tests are projected to start in the end of 2004.

VBL currently collaborates with research groups from MIT, Harvard Medical School, the Memorial Sloan Kettering Cancer Research Center and the Pasteur Institute.

Israeli Technology Used in Taking Mars Pictures

The recent pictures of Mars transmitted to NASA and viewed across the globe were made possible, in part, by the research of three scientists from Haifa's Technion. Hewlett Packard Labs told the Jerusalem Post that the pictures transmitted from the Mars explorer "Spirit," were made possible due to the Israeli research team.

The unique image-compression algorithm was developed by Gadi Sarousi, HP Labs' Director of its Information Theory Research group, as well as Guillermo Shapiro and Marcelo Weinberger. HP said that the compression technology enabled the sending of the high-quality photos from Mars over a short period. Weinberger and Sarousi, both graduates of the Technion, wrote their doctorates under Professors Abraham Lempel and Jacob Ziv, the developers of the Lempel-Ziv coding algorithm – which has become the international standard for compressed information transmission.

"Because of the great distance between Earth and Mars, the signals are very weak, the data is transferred very slowly. The way to speed it up is to compress the data and translate it into another form with many fewer bits without harming the quality of the image," Ziv stated. "NASA adopted the algorithm originally developed by our graduates, who are the second generation working on our original contribution."
The formulas save "billions of dollars," continued Dr. Ziv, "as the more data you have coming in, the larger the antenna farms you have to build. If the data is compressed, the number of antennas and the amount of space they cover is much smaller."

Dr. Jacob Ziv developed the mathematical formulas with Prof. Abraham Lempel. They published their findings in three journal articles in the late 70's. Ziv presently serves as the president of the Israel Academy of Sciences, and Lempel leads scientific research at Hewlett-Packard's R&D center in Haifa.

BGU Scientists Develop Anti-Missile Laser

A novel airborne missile interception system based on chemical laser developed by researchers at Ben Gurion University of the Negev, is being developed in the US.

Prof. Salman Rosenwaks and Dr. Boris Bermashenko, who headed the development team, said the new weapon, a chemical oxygen-iodine laser, was particularly effective, because it used nitrogen instead of helium to dilute the active materials in the laser.

The laser, which was developed mostly in the US, Russia, Japan, China, and Germany, is currently the world's leading high-power laser. While these countries develop mostly large devices (in the US, for example, a laser is developed with a continuous power supply of several megawatts), the Ben Gurion University physics department laboratories have developed a smaller device, with a one kilowatt power supply.

Truth Detection Eyeglasses

One little gadget debuting at Consumer Electronics Show in Las Vegas claims to put truth detection voice analysis on the bridge of your nose.

"Voice Analysis Eyeglasses" provide real-time analysis on the inside of the lenses about whoever is talking at the time, says its maker, the Israeli company Nemesysco, which developed the technology for counterterrorism and government customers.

"A chip inside the glasses is able to read the voice frequency of the person you are talking to," said Beata Gutman, a spokeswoman for the company. "The voice is analyzed through that chip and there are lights that indicate whether the person is lying."

She said the “truth specs” were expected to be available at the end of January for $400-$500.

Crucell Grants Pfizer an Exclusive License on West Nile Virus Vaccine

Dutch biotechnology company Crucell N.V. (Euronext:CRXL), (Nasdaq:CRXL) announced that it has granted U.S.-based Pfizer Inc. (NYSE:PFE) an exclusive license to develop and commercialize Crucell's West Nile Virus veterinary vaccine for use in horses.

In June 2003 Crucell partnered with Israeli Kimron Veterinary Institute to develop a West Nile virus veterinary vaccine for use in geese in Israel. Crucell and Kimron anticipate approval of the veterinary vaccine in Israel in 2004. Pfizer will be responsible for the development of the vaccine for use in horses.

The PER.C6(tm)-based West Nile Virus veterinary vaccine is an inactivated whole virus product, which has been proven to elicit a strong and effective immune response in other species. According to sources within the industry, 8 million doses of the vaccine have already been used in the U.S. and Canada since approval of the first vaccine in 2001, at a cost of $25 per dose, including veterinary fees. This suggests a very attractive current U.S. market of at least tens of millions of dollars.

West Nile virus is a member of the flavivirus family, which has selected Crucell technology to develop their new West Nile virus vaccine for horses," said Dinko Valerio, President and Chief Executive Officer of Crucell. "Due to faster approval processes in the a mal health industry, the West Nile Virus veterinary v cine has the potential to be one of the first PER.C6(t based vaccines to reach the U.S. market.".

This group of viruses includes yellow fever and Louis encephalitis and is commonly found in Afri West Asia and the Middle East. It was recognized in Western Hemisphere for the first time in 1999. W Nile virus is carried by birds and is spread to huma and other animals by mosquitoes.

Germany's Taurus installing Tadiran Spectralink on Missiles

Tadiran Spectralink, announced a recently sigr agreement with Taurus System of Germany. Taurus be integrating wireless communications systems ma by Tadiran Spectralink in its cruise missiles. The sco of the deal is estimated at about NIS 140 million, for Israeli company.

The systems will be installed in Taurus KEPD 350 n siles, currently under development. The missiles designed for launch from a variety of aircraft, includ Tornados and Eurofighters. They can hit targets up 350 kilometers away, a range that minimizes the pot tial threat to the jet fighter team.

The navigation and communications systems designed to improve the missile's accuracy, enabl greater selectivity of targets.

The Tadiran Spectralink systems enable the missile transmit data in real time, facilitating battle dama assessments, and to receive commands from senders. Its course can be corrected in mid-flight, or target even changed entirely.

Benny Yitzhak, chief executive of Tadiran Spectrali said the Taurus deal is an important breakthrough the company into the European guided missile arer

Trade Deficit Lowest Since 1991

Israel's trade deficit narrowed during 2003, accord to the latest figures from the Central Bureau Statistics.

The deficit contracted by 13.2% compared with 20 to $6 billion in 2003, the bureau said. That is its low level since 1991.

Export of goods rose 8.1% to $27.7 billion, while imports grew 3.5% to $33.7 billion.

Industrial exports increased by 5.7% in 2003 to $19.1 billion, while agricultural exports jumped 13.8% to $700 million, the Central Bureau of Statistics said.

A breakdown of industrial exports by sectors shows that hi-tech increased the least, rising only 0.8% last year, while "traditional-mixed" industrial exports increased by 12.5% and traditional exports increased by 4.2%.

Israeli Companies Raise $1.0b. in 2003

During 2003, Israeli high-tech companies raised $1.011 billion from venture investors, local and foreign (Chart 1). The amount is 11 percent below the $1.138 billion raised in 2002, but approximates the $1.013 billion raised in 1999. Three hundred and seventy two companies raised capital in 2003, compared to three hundred and fifty-two companies in 2002, and three hundred and thirty-eight in 1999.

Zeev Holtzman, Chairman of IVC Research, said "Today, some ten VCs are in a race to raise new funds, and we forecast that they will succeed in raising $1 billion in 2004. Therefore, we foresee an increase in the pace of technology investments in light of the more buoyant capital markets in Israel and abroad."

In the fourth quarter of 2003, 96 Israeli high-tech companies raised $246 million. This figure is 13 percent lower than the $283 million raised by 103 companies during the third quarter, yet 20 percent above the $205 million raised by 89 companies in the fourth quarter of 2002. Fifty companies attracted more than $1 million each. Of these, eight companies raised between $5 million and $10 million each and seven companies raised more than $10 million each.

The average company financing round, at $2.7 million in 2003, continued to slide. The average round was $3.2 million in 2002. In the fourth quarter, the average round was $2.5 million, compared with $2.3 million in the fourth quarter of 2002.

Impulse Dynamics Raising $75 million

Impulse Dynamics, a medical equipment firm, is in the process of raising $50-75 million at a valuation of about $250 million. According to sources in the life sciences industry, the American giant Johnson & Johnson is considering investing in the company. Impulse has dev oped a system called the Optimizer, which can cont the activity of cells in the body by administering them electric pulses. The system is used to keep t heart beating in the event of heart failure, and t company eventually also hopes to apply it to diabet and obesity treatments. Impulse has registered mc than 100 patents on the system.
In 2000, the American medical equipment compa Guidant purchased the rights to use Impulse's tec nology for $127 million, enabling the company to d tribute this sum to shareholders. The agreement al included an option allowing Guidant to buy Impulse the future for $300 million. However, Guidant nev exercised the option, and it later wrote off its $127 m lion investment.

The company was founded in 1996 by Profess Shlomo Ben-Haim, a lecturer at the Techion's Facu of Medicine, a visiting professor at Harvard, and se ior manager at Johnson & Johnson's subsidia Cordis.