ISRAEL HIGH-TECH
& INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES **JOSEPH MORGENSTERN, PUBLISHER**
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Expect a Propitious Mix of Developments in the New Year

Without proclaiming the usual guarded optimistic disclaimers it would be unreasonable not to share with you our feeling that 2004 will be the best year since dot.com bubbles were bursting, all over the landscape. The Israeli public is sending strong signals that it expects forward movement and not just rhetoric, from its political echelon. Most citizens demand visible movement towards a permanent peace. It will be up to Israel to make the first move, as the recently appointed Palestinian Authority leadership is seen as incapable of assuming a partner's role. The projected end of the construction of the security fence will bring greater confidence in the Israel Defence Forces abilities to contain terror. Israel will feel more secure that it can either negotiate or undertake unilateral moves.

The Israeli Prime Minister Ariel Sharon, we expect, is well aware that 2004 may be his last opportunity to substitute rhetoric, with positive action. We would expect that he will present new political initiatives, that may be controversial in his own country, but overall potentially effective. In the Middle East, both sides tend to accept the premise that negotiations between Israel and the Palestinians followed by commitments do not result in a basis leading to Peace.

The frothy stream of economic statistics emanating from the United States, points to the prospect that 2004 will be a "good" year. When the American economy starts to move forward it will pull along the economy of Israel. The Israeli high-tech economy is firmly hitched to that of America. Technology remains a vital part of Israel's total economy, and accounted for 46 percent of Israel's manufacturing exports during the first 10 months of the year. (according to the Central Bureau of Statistics.) That's in line with levels in 1999, the height of the tech boom.

The Tel-Aviv Stock Exchange has experienced a good year with many of the battered shares recovering their previously accumulated losses. We believe that investors in Israel, and those who invest in emerging markets will chose to invest in Israel. Some of our thoughts are discussed in this issue. Other positive sounds are heard from the Israeli venture capital community. The Israeli venture capital funds, Pitango, Gemini, Genesis, Giza and Yozma have started to raise follow-on funding. If all the expected commitments are received it would total more than $800 million.

If 2004 turns out to be a mix of an improved economy along with a defusing of the current violence then we surely will have a Happy New Year!

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Wilshire Associates Considering VC Investments in Israel

William Eric van Eesteren and Daniel E. Allen, representatives of Wilshire Associates, which manages $2.5 trillion in investments and is one of the largest US groups, recently visited Israel. During their visit they met with several Israeli venture capital firms, including Pitango Venture Capital, Gemini Israel Funds, and Genesis Partners. Any commitment that Wilshire Associates might make will mark its first ever investment in Israel.

Wilshire Associates provide investment products and services, to clients in over 20 countries, representing over 400 organizations.

On Track to Install ID System at Gaza Checkpoint

The Israeli military is about to install, a high-tech identification system at a Gaza checkpoint in an effort to speed up passage of Palestinian workers into Israel. By cutting down the waiting time, it is expected to decrease what could be potentially dangerous friction with Israeli soldiers.

The Basel System, developed by Israeli company On Track Innovations (Nasdaq:OTIV), uses two biometric sensors to read the facial dimensions and hand geometry of Palestinian workers crossing through the Erez checkpoint, “It would be the first of its kind in the world,” according to Ohad Bashan, director of global marketing at the company.

The Erez checkpoint, at the northern end of the Gaza Strip, is the main crossing point into Israel. Workers have complained bitterly about the long wait during the checking procedure.

Currently, about 10,000 Palestinian laborers pass daily through the narrow passageways of the Erez checkpoint, showing soldiers their laminated identification cards before they travel to construction or agricultural jobs in Israel. If a card is believed to be forged, its owner can be held for hours while it is checked.

The new OTI system is designed to increase security while speeding up the check at the same time. The new system will be tamper proof, Bashan said.

The Basel System "will significantly improve the security, the speed and the relationship between Palestinian workers and the soldiers," Bashan said. "The Palestinians crossing over will not need to be interrogated."

Workers will carry contactless smart cards. Their heads and their hands will be scanned to make sure that all information matches before they are let through the checkpoint.

Such a dual biometric system has never been used with the contactless cards before, according to a company spokesman. It is significantly quicker than other systems that check handprints and retinas to identify users. The device takes between four and nine seconds to check each worker.

Israel's Defense Ministry contracted an Israeli office of the U.S.-based company Electronic Data Systems to install a system that would ensure that Palestinians who pose a security risk, would not cross through the checkpoint, Bashan said.

The American EDS company in turn subcontracted with the Israeli-based OTI, which specializes in smart card and contactless technology, that it has tested out in Israeli communities.

The Defense Ministry had requested that the system include two biometric checks to guarantee reliability.

U.S. anti-terror funding was used in the development of the Basel System, Bashan said, although he could not say how much money had been invested.

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Furthermore the company announced a major achievement. MasterCard International has selected its contactless secure microcontroller solution for use in its MasterCard PayPass deployments in the U.S. MasterCard PayPass is a new "contactless" payment program that provides consumers with The Simpler Way to Pay(TM). OTI's affiliation with the project should generate several million dollars' revenue.
Consumers simply tap or wave their MasterCard PayPass card on a specially equipped merchant terminal, eliminating the need to swipe a card through a reader.

The new solution is useful for quick payment environments where speed is essential, such as quick service restaurants, gas stations, drug stores, supermarkets and movie theatres.

MasterCard PayPass functions using a secure contactless microprocessor chip and an antenna. Atmel has been selected to supply the secure contactless microcontroller and has partnered with OTI to provide the contactless solution expertise including the operating system, application support and inlay technology.

"OTI has worked with MasterCard on its PayPass program since its inception. MasterCard has successfully integrated our inlay technology with leading U.S. card vendors and these have integrated our reader solutions with multiple point of sale providers to support MasterCard PayPass, said Ohad Bashan, president and CEO of OTI America.

OTI, based in Rosh Pina, is traded on the Nasdaq SmallCap and on the Frankfurt stock exchange. Earlier this month it admitted to widening losses, at both the operating and net level, and a 6% dip in revenues to $4.1 million for the third quarter of 2003. The company blamed the slip on customers delaying key projects. Its operating loss widened 74% compared with the parallel quarter to $1.5 million, and its net loss mounted to $1.8 million, compared with $1.6 million in the same quarter of 2002.
OTI has 200 employees and maintains offices in Cupertino, California.

First Israeli in Iraq: a Netafim Rep

Netafim, which makes smart irrigation systems, recently sent a representative to Iraq to meet with Agriculture Ministry officials, in order to determine whether Netafim could assist in projects to upgrade the quality of agriculture in the country.

Before to the first Gulf War, Iraq had more than 4,000 agricultural villages. However, Iraqi president Saddam Hussein's policy called for destruction of their agricultural infrastructure, and to force their residents to move to the region's four biggest cities.
While the area of the ancient Fertile Crescent, lying at the convergence of the Tigris and Euphrates rivers in southern Iraq, has badly contracted in recent years, it is still considered prime farming land. Netafim is interested in taking part in the $300 million program that has been earmarked for agricultural rehabilitation.

The concept of drip irrigation has been well known for decades. After WWII plastics technology took off rapidly and drip irrigation became economically practical. The first such work was with micro-tubes and took place in England and France in greenhouses. About 1960, a Mr.Symcha Blass an employee of a British Water Agency, emigrated to Israel.. There is a "fable" (which could be true, because it came from his own mouth) about Symcha Blass sitting next to a tree which was near a leaking faucet and Eureka! But there is also no doubt that he knew about the British greenhouse application of micro-tubes. With the desperate water shortage in Israel he decided that this technology would be useful for growing crops in the field as well as in greenhouses. The microtube was first wrapped around the feeding tube to keep it out of the way to prevent damage. This was followed by a molded coupling with the spiral molded in. In turn this developed into the ubiquitous two piece in-line dripper described in Blass' patent. Blass did his work at Kibbutz Hatzerim and formed the basis of the Netafim, irrigation enterprise.

Security Biometrics Inc. Inks Letter of Intent with WonderNet Ltd.

Security Biometrics Inc. (OTCBB:SBTI) announced it has signed a letter of intent to acquire WonderNet Ltd., a leading Israeli biometric company. The transaction is scheduled to close on or before February 29, 2004. At closing, the shareholders of WonderNet will receive a combination of cash and shares of common stock of Security Biometrics. WonderNet's cutting-edge patented technology and proprietary algorithm has earned it pioneer status in the industry. WonderNet has already demonstrated over the last 18 months the proof of this concept, to 20 customers in 10 business sectors. WonderNet currently offers one

of the most advanced solutions in the biometrics industry in terms of accuracy and efficiency.

WonderNet Ltd.is a biometric signature authentication company offering the Penflow solution. The system is based on inherent proprietary patents that validate a signature in a quick, non-invasive and highly accurate manner. The Penflow(authentication engine views the signing process as a series of movements performed in a continuous, consistent and sequential process.

WonderNet Ltd. has developed a new and unique algorithm that allows signature authentication by monitoring human hand movements instead of the final image. The authentication is performed employing parameters such as pen speed, acceleration pressure and directional vectors. The proprietary algorithm enables the signature profile (not its image) to be matched automatically. An off-the-shelf product, Penflow(is endorsed by financial, military, industrial and legal institutions. Dynamic signature verification replaces or complements a personal identification number, passwords, hardware devices such as cards (magnetic or SIM) or keys as a means for identity verification.

The Influential Young Israeli

TIME/CNN has chosen, 34-year-old Israeli Shai Agassi, to its list of Global Business Influentials.

Agassi, who grew up in Israel, is chief technology developer of the world's largest business-software company, SAP of Germany.
"He started four companies in his 20s," TIME writes, "and sold one, Top Tier, to SAP for $400 million. He ran a subsidiary, SAP Portals, and developed XApps -- new software designed to work with existing systems.

In February, SAP made Agassi the first non-German member of its board, and he replaced SAP founder Hasso Plattner in the top technologist role." TIME also quotes him as saying, when asked to define his vision, "Training people on computer systems is stupid. We need to train the systems to work with people."

Eastman Kodak on Shopping Spree

Scitex to sell Scitex Digital Printing to Kodak for $250m

Scitex (Nasdaq: SCIX; TASE:SCIX) announced that it and Eastman Kodak (NYSE: EK) have signed a definitive agreement whereby Kodak will acquire Scitex Digital Printing, Inc. (a leader in ultra-high-speed digital printing technology, for $250 million in cash. Scitex said that it currently intends to make a significant cash distribution to its shareholders following the closing.
Commenting on the transaction, Nachum Shamir, CEO of Scitex and Scitex Digital Printing said: "Kodak is a terrific strategic fit and I am very excited about the future of this business, under Kodak's stewardship."
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Shamir and the management team of SDP are then expected to join Kodak's management and continue to lead the business under the Kodak corporate structure.
Scitex Corporation continues to hold a majority shareholding in Scitex Vision (Aprion) that develops, sells and supports wide format drop-on-demand imaging devices. Scitex also has equity interests in a number of entities, including significant stakes in Jemtex Ink Jet Printing Ltd. and Objet Geometries Ltd.

Kodak Readies to Acquire Algotec for $42.5m.

Eastman Kodak said that it will acquire Israel based Algotec Systems Ltd., a developer of picture archiving and communications systems (PACS). Kodak said the move improves Kodak's competitive position in the growing market for PACS, which enable radiology departments worldwide to digitally manage and store medical images and information.
Kodak plans to acquire Algotec for $42.5 million in cash. Algotec, whose technology is among the best in the PACS world, will become the "center of excellence" for developing Kodak medical PACS products and attendant 3D imaging technologies. The company had so far raised $6 million in a single financing round in 1998. The main investors were the Star and Jafco funds. The company is

currently owned by parent company Photonix, which holds 50%, Elscint, Star, and Jafco.
"This move will bolster our current PACS development efforts and will give Kodak greater leverage in a market growing at 15-20% annually," said Dan Kerpelman, president of Kodak's Health Imaging Group, and a senior vice president of the company. "We will acquire Algotec's intellectual property, including its unique source code - ideal for developing products in the rapidly growing category of web-enabled PACS. By fully utilizing this intellectual property, we will create a stream of compelling product innovations and, in doing so, will accelerate the growth of our business."
Banc of America Securities' "2003 Hospital CIO Survey" indicates that almost 60% of chief information officers in US hospitals plan to purchase PACS within the next three years. The price of a PACS system ranges from $500,000 to $3 million or more, depending on exact requirements.
"Algotec's technology will put us in a better-than-ever position to capitalize on this opportunity," Kerpelman said, "as will changes we are making in our field of operations."

Algotec and Kodak have created a close relationship since May of last year. At that time, the two companies signed an agreement under which Algotec began providing supplemental software for the development of Kodak's PACS products. The Kodak DirectViewPACS System 5, currently rolling out in the market, is the result of the companies' collaboration.
"Having emerged as Kodak's principal supplier of PACS technology, Algotec will become part of the Kodak family as a wholly owned subsidiary within our Health Imaging Group," Kerpelman said.

BioDelivery Sciences to Develop Nanoscale Enzyme Therapy

BioDelivery Sciences International Inc. (BDSI) is creating an Israeli subsidiary to develop nanoscale drug-delivery therapies to treat one of many inherited diseases caused by an enzyme deficiency.

Biorazyme Ltd., the tentative name for the new company co-owned by Newark, N.J.-based BDSI and Israeli joint venture partners, will develop new oral enzyme replacement formulations for Gaucher Disease. The company said the new therapy could reduce costs and dosage of current intravenous therapies.
BDSI's Bioral delivery technology uses nanocrystalline delivery vehicles made from all-natural components that wrap around the enzyme and allow it to be delivered into the body, according to a company news release.

Eli Hurvitz to Invest in Life Sciences

Mr. Eli Hurvitz chairman of Teva Pharmaceuticals (TASE, Nasdaq:TEVA) is launching a private investment company, that will focus on Israeli life science firms.

The firm, Pontifax, will be run by his son-in-law, Tomer Kariv. Reportedly it is offering investors units of $500,000. Hurvitz will serve as the chairman of the board of the new company which will charge an annual management fee of 1.5%. There are already a number of funds and investment groups in Israel that specialize in the life sciences. In the third quarter of last year, only $16 million was invested in 21 companies in the field, a drop of 74% in investment from $62 million in the second quarter. Most of the investments were made in the area of medical equipment.

Indian Navy Buying $100m. Barak Missiles

Israel Aircraft Industries is preparing to sign a contract to supply India with $100m. worth missiles to protect warships. This would be the third missile deal between IAI and the Indian Navy. IAI has previously sold $260 million worth of Barak missiles to the Indian army.

The naval Barak Missile, produced at IAI's Mabat plant in Yehud, is considered the world's most advanced at protecting warships and has been deployed by several countries. The Israeli Navy's Sa'ar 5 missile boats are equipped with the missile. A warship is armed with 32 missiles.

The Barak missile is generally supported by a radar system positioned on the ship's mast that provides an early alert of approaching threats, including cruise missiles, smart bombs and military helicopters. It can provide the warship with 360-degree protection.

The Barak missile was built to enable firing from a vertical launcher installed on the ship so as to save space. It is an accurate guided missile with an operative range of between 0.5 km. to 10 km. IAI is trying to develop Barak missiles with a greater range and up to dozens of kilometers.

The missile can be launched in any weather, at night or day, weighs about 100 kg., is 2.7 meters long, with a 2-3 Mach velocity.

First F-16I Sufa Delivered to Israel

The Israeli F-16I Sufa, directly off Lockheed Martin's production line was welcomed by the Israeli Defense Minister Shaul Mofaz. The new aircraft was the first of 102 ordered by Jerusalem in 1997.

The Israeli Air Force's (IAF) F-16I Sufa (Storm), a two seater, is the latest version of the Lockheed Martin F-16. The estimated $4.5 billion dollar F-16I deal, $45 million per aircraft, will be financed by the annual U.S. military aid package and concludes the largest ever Israeli military purchase. Israel had originally ordered 50 F-16Is in 2001 but increased the purchase to 102 after deciding against the procurement of additional F-15Is. The acquisition of the Sufa, compliments Israel's deterrent strategy by further strengthening the potentia; threat to carry out retaliatory strikes throughout the Middle East. The F-16I has an unrefueled combat strike radius well in excess of 500 miles. The extended flight range allows Israeli forces to attack targets well within Iran and Libya without having to refuel. The cockpit of the F-16I has been expanded to provide for the addition of an onboard weapons officer situated behind the pilot.

Three squadrons of the new aircraft are expected to be operational by 2008 with the first strike aircraft arriving next month.

In addition to the new and more powerful Pratt & Whitney F100-PW-229 engine, the F-16I has numerous modifications. The engine will enable it to achieve a maximum take-off weight of 23,582kg. The Sufa has been customized with new avionic technologies, internally mounted FLIR, forward looking infrared, viewers, and cutting edge weapon system hardware provided by the Israeli defense company Lahav - a division of Israel Aircraft Industries.

The Lahav technology will allow for simultaneous, multi-target air-to-air engagement and increased standoff and survivability capabilities. The F-16I has been earmarked to receive the new Python 5 imaging infrared-guided high agility air-to-air missile produced by Rafael, the former Israeli

Armaments Development Authority.
The predecessor to the Python 5, the Python 4, w regarded to be the most advanced heat-seeking m sile in the world. The Python 5 boasts a new seek less prone to countermeasures, lock-after-laun capabilities, and an extended operational engageme time once fired. In addition, the Northrop Grumm AN/APG-68(V)9 multimode radar increases the d tance of airborne engagement by 30 percent over t older APG-69 system and affords the "Sufa" with high-resolution synthetic-aperture ground mappi capability.

With the additional 102 new F-16Is, Israel will opera a total of 362 F-16s - the largest fleet of F-16s in t world outside of the United States Air Force.

NANOTECHNOLOGY

Self-assembling NanoTransistor Uses Biology

A functional electronic nano-device has been man factured using biological self-assembly for the fi time.
Israeli scientists harnessed the construction capab ties of DNA and the electronic properties of carb nanotubes to create the self-assembling nano-trans tor. The work has been greeted as "outstanding" a "spectacular" by nanotechnology experts.
The push to shrink electronic circuits to ever small dimensions is relentless. Carbon nanotubes, whi have remarkable electronic properties and only abo one nanometer in diameter, have been touted as highly promising material to help drive miniaturisatio But manufacturing nano-scale transistors has prov both time-consuming and labour-intensive.
The team, at the Technion-Israel Institute Technology, overcame these problems with a two st process. First they used proteins to allow carbon na otubes to bind to specific sites on strands of DN They then turned the remainder of the DNA molecu into a conducting wire.

Proof of principle:
"DNA is very good at building things in molecular biology, but unfortunately, it does not conduct electricity. We had to get a metal conductor on the DNA," explains physicist Erez Braun, who led the research.
"This is spectacular work," says Cees Dekker, a nanoscience expert at Delft University in the Netherlands. "It demonstrates that it's possible to use biology to build an inorganic device that works."
"But while it is a first step towards molecular computing based on this type of DNAconfiguration, we are still many years way from large scale self-assembly electronic devices, such as computers," Dekker cautions.The device operates as a transistor when a voltage applied across the substrate, is varied. This causes the nanotubes to either bridge the gap between the wires - completing the circuit - or not.
Out of 45 nanoscale devices created in three batches, almost a third emerged as self-assembled transistors. They work at room temperature and the only restriction for future devices is that the components must be compatible with the biological reactions and the metal-plating process.
The team have already connected two of the devices together, using the biological technique. "The same process could allow us to create elaborate self-assembling DNA sculptures and circuitry," says Braun.

Even the Palestine Authority Invests in Israel

We quote a recent report published by Reuters: "A company owned by the Palestinian Authority has invested $8 million in Israeli venture capital fund Evergreen, according to a report by Standard & Poor's credit rating service.
"A company owned by the Palestinian Authority committed in 1999 to invest in the Evergreen III fund," Reuters reported.
The Standard & Poor's report said the Palestinian Commercial Services Corp bought a 5.5 percent stake in the Israeli fund and then transferred the stake this year to the Palestine Investment Fund (PIF).
The PIF was set up in 2000 "to manage investments that promote economic growth and infrastructure in Palestine", according to its website.
S&P, acting as a consultant for the PIF, presented the report to the fund regarding the value of its assets and finances on January 1.
A report in September from the International Monetary Fund said some $900 million has been diverted from the Palestinian Authority's accounts during 1995-2000, some of it to bank accounts under the control of Chairman Yasser Arafat and his financial adviser.
Most of the money diverted was invested by the Palestinian Commercial Services Corp, which the IMF report estimated made profits of $300 million that were not channelled back to the budget.
Palestinian Finance Minister Salam Fayyad has denied any misuse of funds.
Fayyad said that, as part of the economic reforms, the PA decided to set up the PIF and to consolidate all its assets into a holding company in charge of managing the authority's commercial operations.
A source close to Evergreen said the venture capital fund was not aware of any ties between the investment and Mr. Arafat.
The Evergreen III fund invests in Israel, the United States and the United Kingdom.

Orbotech Lands Contract for LCD-TFT Production Line to be Built in China

Orbotech (Nasdaq: ORBK) announced the receipt of an order it said was worth more than $8 million SVA-NEC for several FPI-6590 automated optical inspection (AOI) systems to be utilized in the first LCD-TFT production line to be built in China.
SVA-NEC's new 5th generation fabrication facility will be constructed in Shanghai during 2004, and is the first such facility in China.
NEC LCD Technologies Associate Senior Vice President Toshio Ohta said, "Orbotech AOI systems have a successful history of contributing to improved manufacturing yield and increased cost-effectiveness in our TFT-LCD lines in Japan. Our decision to place this order with Orbotech was based on selecting a well-established vendor with the proven ability to support our needs, as well as, the FPI-6590 system's superior detection and reliability for 5th generation production".

Keryx Raises $15 million

Keryx Biopharmaceuticals (Nasdaq: KERX) announced that it had entered into definitive agreements with several institutional investors relating to a private placement of approximately $15 million in common stock and warrants. The company has also disclosed that it will be collaborating with the University of Michigan to test its flagship drug, KRX-101, as a treatment for cardiovascular injury.

KRX-101, or sulodexide, is currently undergoing Phase II/III clinical trials to treat kidney damage in diabetics. Dr. Benedict Lucchesi, Professor of Pharmacology at the University in Ann Arbor, will be

assessing the drug's potential benefit in treating damage to the heart, as well.

A heart attack causes myocardial damage, both during the ischemic phase when blood flow to regions of the heart is compromised, and during the reperfusion phase when blood flow is restored as a result of drug treatment and/or angioplasty, Keryx explains.

Dr. Lucchesi will be evaluating KRX-101's ability to modulate inflammatory events associated with myocardial ischemia and reperfusion and its potential benefit in treating these conditions.

This is the first time Keryx is expanding the field for its drug to the heart, which becomes badly damaged by inflammation following cardiac events. "We are hopeful that KRX-101, with its potential distinct anti-inflammatory characteristics, will provide therapeutic benefit in this disease area," said Michael Weiss, the company's chairman and CEO.
Lucchesi noted that unlike many other parallel drugs, sulodexide is administered orally, which is a distinct advantage. KRX-101 belongs to a proposed new class of nephroprotective (kidney protecting) drugs, called glycosaminoglycans. A variety of members of this chemical family have been shown to decrease pathological albumin excretion in diabetic nephropathy in man. However, these heparin agents all require therapy by injection and are all potent anticoagulants, which are blood thinners capable of inducing bleeding. Sulodexide, on the other hand, is given orally and, in this form, has demonstrated little, if any, anticoagulant effects to date, Keryx explains in its statement.

Israel and Motorola in Joint $20m R&D Fund

Motorola (NYSE:MOT) and Israel will establish a joint $20 million, on a 50/50 basis, R&D fund. Each party will invest $10 million. The fund will finance joint projects between Motorola and Israeli companies.

Minister of Industry Trade and Labor Ehud Olmert and Motorola president and COO Mike Zafirovski reached an agreement to this effect last Thursday. Also present at the meeting were Prime Minister Ariel Sharon, Prime Minister's Office director-general Avigdor Yitzhaki, Ministry of Finance director-general Dr. Joseph Bachar, Ministry of Finance deputy budget director Kobi Haber, Motorola Israel general manager Elisha Yanay and Motorola Israel CFO Rami Guzman.
The agreement on establishing the fund is an agreement in principle. The precise amount to be invested by the state, which will be similar to the amount invested by Motorola, will be agreed with the Ministry of Trade and Industry Chief Scientist Dr. Eli Opper.

Establishing a joint fund with Motorola is part of the Office of the Chief Scientist's policy to set up joint R&D funds with global corporations, leaders in their fields, which will develop joint projects with Israeli companies.

The joint R&D fund with Motorola follows Motorola's decision to develop 3G wireless products in Israel. Yanay said the decision meant that Motorola would make Motorola Israel responsible for the R&D for its most advanced products.

Agis Our Choice for Outstanding Performer

At the outset of 2003 we pinpointed Agis Pharmaceuticals (TASE:AGIS) as our choice for best performer for the year. As we write, the shares of this generic drug manufacturer have appreciated by 160%.

We continue to believe that the company will maintain its growth and investors will be prepared to pay higher prices for its shares.

For those of you with a more venturesome inclinations, AudioCodes (Nasdaq:AUDC) a rapidly expanding specialist in the transmission of voice, data and fax over packet networks may be an interesting speculation. Packet networks are data communications networks that transport information compressed into packets over circuits shared simultaneously by several users.

"Arrow" Test an Unqualified Success

December 16 marked the eleventh Arrow Interceptor test and the sixth of the complete weapon system. It was a routine development test as part of the ASIP program which is being jointly carried out by Israel and the U.S.A

The test objectives, were to demonstrate the system's improved performance including a higher altitude interception of an incoming target.

The target trajectory demonstrated an operational scenario against the state of Israel and all the system components performed in their operational configuration.

The target was air launched toward the Israeli shore. Working as in operational configuration, the Fire Control Radar (FCR) acquired the target and sent its data to the Battle Management Center (BMC). A defense plan was issued and a mission command sent to the launcher.

The interceptor performed successfully and the target was intercepted.

The program is managed by the Israeli Missile Defense Organization in close cooperation with the US Missile Defense Agency (MDA).

Israel Aircraft Industries / MLM is the prime contractor for the Arrow Weapon System.

The system consists of the Fire Control Radar (FCR - Developed by ELTA), the Battle Management Center (BMC - Developed by TADIRAN Systems), the Launcher Control Center (LCC - Developed by MLM), the operational launcher and interceptors (Developed by MLM). The target was a "Black Sparrow" (Developed by RAFAEL).

The System is fully operational, operated by the Israeli Air Force. The test's success is a major step in the confirming the system operational improvements to deal with incoming ballistic missile threats.

Samsung May Use Israeli Heart Monitor in Cell Phones

The device was runner-up in the medical category at a global exhibition for technological innovation in Belgium.
South Korean Samsung (KSE: 00830) is in discussions with an Israeli group that is developing a telemedical device for monitoring coronary disease using a wireless telephone. The developers report that Samsung is considering integratring the device in its next generation of wireless telephones.

Dr. Nitzan Yaniv developed the device, which was runner-up in the medical category at a global exhibition for technological innovation in Belgium. 1,200 scientific patents from 40 countries were presented at the exhibition.

Representatives of the Ministry of Industry, Trade, and Labor Chief Scientist presented the heart monitoring device at the Israeli pavilion. The device is currently undergoing tests at the Soroka Medical Center in Beer Sheva. Samsung representatives visited Israel to view the system and observe it in use.

The device is based on research by Prof. Amos Katz in the monitoring of coronary diseases by registering changes in pulse. Prof. Katz heads the psycho-physiology unit at the Soroka Heart Institute of. “We are trying to develop a simple test which reveals the characteristics of the pulse. We call it Risk Stratification in a patient who has experienced heart disease or is known to be at risk. An algorithm, protected by patent, assists in creating a picture of the characteristics of the pulse and allows to determine the degree of risk. The results of the test can be transferred via the telephone of the Internet”, explained Prof. Katz to IHTIR.

Weizmann Institute Develops Alternative to Biopsies

Israel’s Weizmann Institute of Science has developed a new diagnostic imaging technique. The technique, named as "3TP" (Three Time Point) technique, through using existing magnetic resonance instrument (MRI) scanners and a safe contrast medium injected into the patient, will enable

doctors to distinguish between malignant tumors and benign lumps by scanning instead of biopsies used to diagnose solid malignant tumors.

Early Stage SARS Diagnostic Kit

In an exemplary case of typical Israeli innovation and thinking “outside the box”, an Israeli firm, BioShaf Ltd., dedicated primarily to research and development of fertilization and obstetrics analysis technology, has developed an early-stage SARS diagnostic kit. The test itself is fast, taking one hour, and apparently quite accurate.

Amos Satellite Launch Due Soon

Israel's Amos-2 communications satellite will be launched into space a month from now, in a multi-national effort. Amos-2 is a second-generation communications satellite built by Israel Aircraft Industries. The Amos-1, launched seven years ago, serves radio and television stations in Israel, Hungary, Romania, Croatia, Ukraine, and elsewhere. The more advanced Amos-2 will offer hot beam coverage of Europe and the Middle East, cross-strapped to accommodate direct access from eastern United States.

Israel and India to Cooperate in Submarine Project

Israel has expressed willingness to cooperate with India in its nuclear submarine program, Israeli defense sources announced.
This understanding was reached at the end of November 2003, during the visit of a high-level technical team from India’s Defense Research and Development Organization (DRDO) headed by the Scientific Adviser to the Defence Minister Dr V K Aatre, . The subject was first raised during the visit of Israeli Prime Minister Ariel Sharon to New Delhi in September.

The development possibly a change in Indo-Russian cooperation in this field. In the meantime Israel rapidly progresses towards becoming India's main source for defense procurements.

Seven High-tech Incubators Approved

The high-tech incubators committee headed by Chief Scientist Eli Offer has approved setting up seven new incubator companies, five in life sciences, one in software, and one in machine engineering. The companies will get NIS 10 million in government grants.

The head of the tech incubators project, Rina Pridor, said she expects more companies to be admitted. Offer said large Israeli foundations have invested in the incubators as well, as multi-national companies, ensuring that world markets will open their doors to successful companies.

Israel Discretly Assists U.S. in Iraq

Israel, an important U.S. ally in behind-the-scenes in the war in Iraq, has been contributing intelligence, tactics and technology, mostly in secret, to avert an Arab response, according to analysts.

The commander of the Israel Defense Forces' Golani Brigade instructed American Marines, this past summer, on the lessons the IDF has learned from its conflict with the Palestinians.

The Israelis have supplied the American military with aerial surveillance equipment, decoy drones and D-9 armored bulldozers, according to Israeli sources.
The Israelis are also considering sharing new training software designed for Israeli commanders stationed in Palestinian areas, the sources said. Israeli tactics, have been targeted against a 3-year-old Palestinian revolt in the West Bank and Gaza Strip.
Neither the White House nor the Israeli Embassy will openly talk about connections between U.S. operations in Iraq and Israel's hotly-contested tactics in Palestinian areas. Such connections could spark a backlash against Washington in the Arab world, where suspicions of U.S. intentions are already rife.
Israel was left off the White House's much-publicized list of coalition partners, and was denied -- along with anti-Iraq war countries France, Germany and Russia -- eligibility for substantial post-war reconstruction contracts.

The White House justified its decision to deny eligibility to certain countries as a matter of national security but said they would be eligible to work as subcontractors.

Israel gets about $3 billion a year from Washington and was promised in the run-up to the war in Iraq up to $9 billion in loan guarantees. In contrast, the Palestinians get between $100 million and $200 million.

QuantomiX Introduces the QX-capsule

For the first time, scientists can directly image cells in their native wet environment with a standard scanning electron microscope (SEM), thanks to new technology introduced by QuantomiX at the annual meeting of the American Society for Cell Biology recently held in San Francisco, CAThe company showcased its technology and products, as well as their novel application in the fields of obesity, diabetes, and central nervous system research in exhibits and a workshop to be held for ASCB meeting attendees on December 16.

Applying recent advances in nanotechnology, QuantomiX has developed the QX-capsule, which uses an ultra thin membrane that is transparent to an electron beam but impervious to water and sufficiently strong to resist a 1-atmosphere pressure difference. The capsule is used as a culture dish to separate the wet specimens from the SEM vacuum. It enables researchers to directly image unstained, unfixed cells and tissues, including the imaging of entire cell membranes and internal structures with any SEM.

Human Stem Cells Differentiated into Blood Vessel Cells

A team of research biologists at the Technion-Israel Institute of Technology has succeeded for the first time in inducing human embryonic stem cells to differentiate into the cells that make up blood vessels, and to actually form the vessels themselves. The work will make possible the growth of blood vessels to repair the heart and other organs, as well as provide a way to study blood vessel formation. Such studies could be used in developing new ways to stop cancer, among other applications.

The team's work, led by Prof. Joseph Itskovitz-Eldor of the Faculty of Medicine and including graduate student Sharon Gerecht-Nir is reported in the December 15 issue of Laboratory Investigation. Prof. Itskovitz-Eldor was among the authors of the first paper (1998) describing embryonic stem cell technology.

Human embryonic stem cells have generated enormous excitement because of their ability to differentiate into any of the huge variety of cells present in the body, from nerve to muscle to liver cells. However, it is not easy to direct the stem cells to produce a specific cell type, which is essential if the stem cells are to be used to repair damaged organs.

The Technion team succeeded in getting the stem c to produce blood vessels only by using a series steps, each worked out with considerable experim tation.

The first step, already developed by other researche was to grow the stem cells in contact with collager component of human connective tissue. This stimu ed the cells to differentiate into mesodermic cells, of three basic layers in the developing embr Mesodermic cells give rise to blood vessel cells, ne cells, and a number of other types. The mesoder cell culture consisted of a variety of cells, each capa of differentiating into specific types of daughter cells

The researchers found that the cells capable of p ducing blood vessels happened to be the smallest c in the cultures. They isolated these cells simply by tering with a mesh fine enough to trap the large ce but not the smallest ones.

In a third step, these smaller cells were placed another collagen coated dish, where growth fact were added, which induced the mesoderm cells begin producing the two types of cells that go or build blood vessels.

"We saw that we were getting both the fragile endot lial cells that line the blood vessels and the exter vascular smooth muscle cells that protect the vess and control the flow of blood," explains Prof. Itskov Eldor.

In the final step, the team placed the blood vessel c into a "3-D" culture consisting of two kinds of g known to promote the growth of blood vessels. S enough, when the newly differentiated cells were into the gel, they organized themselves into sn tubes of blood vessels.

Stem-cell generated blood vessels could have so important clinical uses. In heart bypass operatio such blood vessels could substitute for those that r have to be transplanted from other parts of a patie body. In addition, experiments have shown that cells, injected into a mouse, spontaneously form r works of small blood vessels, so they could impr circulation to organs that are blood-deprived.

Researchers will also be able to study the cells to what chemicals can help or hinder the formation blood vessels. In cancer, tumors must induce cells

become blood vessels in order to increase the tumor's own blood supply. The stem-cell-derived cultures could show how to disrupt this process.

Edwards Lifesciences to Pay $125 Million for Percutaneous Valve

Edwards Lifesciences Corporation (NYSE: EW), a leader in medical technologies to treat advanced cardiovascular disease, and the world's number-one heart valve company, announced that it has entered into a definitive agreement to acquire Percutaneous Valve Technologies, Inc. (PVT), a privately held medical technology company, based in Fort Lee, N.J. with a subsidiary in Caesarea, Israel, and a leader in the development of an innovative, catheter-based (percutaneous) approach for replacing aortic heart valves.
PVT's technology is a proprietary combination of balloon-expandable stent technology integrated with a percutaneously delivered tissue heart valve. Unlike conventional open-heart valve replacement surgery, this less-invasive procedure is designed to be performed in a cardiac catheterization laboratory under local anesthesia.

The first human implant of PVT's valve was performed in April 2002 by Dr. Alain Cribier, who has treated 14 patients to date, and is conducting a prospective clinical trial in France. U.S. clinical trials are pending approval of an IDE filing expected early next year. PVT also plans to file for a Humanitarian Device Exemption (HDE) with the U.S. Food and Drug Administration in 2005, which would allow for commercial use in a limited number of patients. CE Mark also is anticipated in Europe in 2005.

Overheard at the Conference "Setting National Priorities"

Revenue and profitability of 30 of the leading publicly listed Israeli technology companies in the past 12 months, showed evidence of stabilization.
Revenue had grown by 1 percent compared with 2002, while profitability had improved as well, moving from a loss of $160 million in 2002 to a net profit of $20 million, said Eli Ayalon, chief executive of chipmaker DSP Group.

Kenneth Abramowitz is one of America's leading health care analysts. He serves as the Managing Director for healthcare at the Carlyle Group, a private equity investment company.
His comments were delivred at a session chaired by Mr. Dan Naveh, Minister of Health.
He listed the Key Accomplishments of the Israeli Healthcare System:
100% coverage of the population
Healthcare expendistures per capita of $2,000 as com pared with $5,700 in the US without waiting delays.
Mortality statistics similar to that in the US
A well educated physician population
Participation in clinical trials
Good national geographic distribution of hospitals and clinics
Some suggestions:
privatize virtually every government owned company
make it easier for employers to fire employees
freeze unemployment rate by freezing minimum wage
unemployment compensation for 10 years
encourage charitable giving to hospitals by allowing full tax deductibility of donor contributions

On behalf of all of us who are involved in producing this report we wish you a Happy and more Peaceful 2004.