FOCUS ON ISRAEL

INNOVATIVE MEDICAL DEVICES AUGMENT GLOBAL BUSINESS
The State of Israel is a land of contrasts ranging from traditions steeped in antiquity to today's dynamic economic and industrial developments. Indeed, Israel is viewed as one of South-West Asia's most developed countries – this year the country ranked 17th among the most economically developed nations* and first as the world's most durable economy in times of crises.

The country has also scooped first position in the rate of research and development investments, and third in the region on the World Bank’s Ease of Doing Business Index as well as in the World Economic Forum’s Global Competitiveness Report. Following one notch below the USA, Israel has more start-up companies than any other country and, beyond North America, has the highest number of NASDAQ-listed companies.

Pharmaceuticals are among Israel’s major exports. In addition, there are over 1,100 life science firms, 65% of which produce medical devices. Indeed, Israel has more medical device patents per capita than any other country and is now the world's second largest supplier in this field.

Healthcare

In a study in 2000, published by the World Health Organisation, Israel has the 28th best healthcare system worldwide.

As of this year, there are 25,542 doctors, i.e. 3.36 per 1,000 residents, the highest ratio among industrialised nations.

Every resident must pay a health insurance tax, is entitled to the government funded healthcare system and receives the same Uniform Benefits Package (UBP), no matter what their financial means. Each resident can register with one of four nationwide Health Maintenance Organisations (HMOs) – which are Clalit (insuring some 54% of the people), Kupat Holim Meuhedet, Maccabi, and Leumit.

Israelis thus benefit from highly comprehensive healthcare cover – and, as noted above, standards are high. Indeed, the country’s many state-of-the-art hospitals, such as the Assuta Medical Centre featured on our cover, also attract medical tourists.

B.M. European Hospital

*Source: IMD’s World Competitiveness Yearbook

New business opportunities

Leading multinationals that hold equity positions in Israel include GE Medical, Philips, Siemens, Boston Scientific, Johnson & Johnson, and Medtronic.

Strong institutional incentives support the development of new technologies and Israel’s 16 Technology Transfer Organisations showcase the creative fusion between universities, hospital systems, and businesses.

In 2008, around 38% of the 1,175 incubator graduate companies continued beyond the incubator stage to function as mature companies.

More than 40% of all Life Sciences companies were created during the last five years and the pace continues with between 70 and 80 new companies formed each year. In relatively short period of time, an astounding 32% of these companies has begun to generate revenue.

The rate of investments in medical devices from all sources, including angels, venture capital and corporate funds greatly outpaces all other segments of the economy.

‘Choose Israel: let us do the rest’ says Angelica Khachaturov, Business Development Manager for Medical Device & Healthcare IT, Israel Export & International Cooperation Institute. ‘In cooperation with the investment promotion centre of Israel’s Ministry of Industry, Trade and Labour, we can offer actionable information about the Israeli Life Science Industry.’

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FDA approves ORLocate to track surgical items

One time is too many. Yet each year, at most hospitals, as many as four patients go home with an unwanted surgical item still inside their body.

More routinely after procedures, surgical instruments and sponges simply go missing. Between medical errors and misplaced items, the annual cost to, for example, the USA’s health system is estimated to exceed US$2 billion.

Help is now on the way with the August 2010 FDA approval of ORLocate from Haldor Advanced Technologies Ltd.

Using radio frequency identification (RFID) technology, ORLocate is the first system of its kind to offer an all-encompassing solution for tracking both high-value surgical instruments and common sponges.

ORLocate was designed to change the way operating rooms manage their assets, which in an era of high-tech unfortunately still relies on an arduous process of hand counting instruments and sponges prior to surgery, and again after a patient is closed up.

‘At any moment ORLocate provides the initial counts and item additions, the number of items not located, the number of clean and soiled sponges, and the time of the last count,’ said Rubi Halberthal, chief executive officer and president of Haldor. ‘The comprehensive logistical and sterile inventory management capabilities enable the hospital to improve efficiency, while enhancing patient safety.’

Before the procedure is completed, the surgical team verifies that each item is accounted for by using ORLocate, which tested 99.8% accurate in lab trials ahead of FDA approval.

Along with the OR system, ORLocate offers an additional platform for use in the Sterile Processing and Distribution (SPD) department that provides advanced tracking solutions for the lifecycle of surgical instruments.

Acupressure device makes labour easier

An innovative device to alleviate labour pains during childbirth – non-invasively and without the use of pharmaceuticals – will be launched in Europe at MEDICA 2010.

Based on acupressure principles, six ‘fingers’ in the EasyLabour device simultaneously apply circular mechanical pressure to six specific anatomical points.

The patient controls the pressure stimulation using a strap held in each hand. To relieve pain of delivery further the patient pulls forward. A nurse or midwife assisting with the delivery also can gently increase pressure to relieve pain by pressing on the device.

‘This is the first time that EasyLabour is being introduced in Europe and we hope that many European medical institutions will find it interesting and choose to integrate it within the standard treatment given to women during childbirth,’ said Yael Golombek, CEO of ACU Medical Technologies.

While using the self-operated electro-mechanical device, pressure applied to the sacral area was found to be effective for nearly all 33 patients enrolled in a dedicated clinical trial that assessed the pain score at five distinctive events. The study found pain was reduced among 90% of the women during labour within five minutes. Pain increased when treatment was halted for three consecutive contractions, and then decreased again when the treatment resumed.

To be featured at MEDICA (Hall 16, booth G40), the revolutionary, patent-protected EasyLabour device developed by ACU Medical, has been widely accepted and recommended by major medical centres and endorsed by obstetric professionals.

Fast vital signs monitoring

Partner the pros at SPO Medical

SPO Medical Systems develops and manufactures vital sign monitoring devices. Unique, patented Reflectance Pulse Oximetry (RPO) is cutting edge technology supplying rapid and reliable mobile response, the company reports. ‘RPO monitors, non-invasively, blood oxygen saturation and heart rate while attached to a single side of the body. Small low-powered battery sensors incorporate wireless functionality, accurate even during physical activity.’

Conventional pulse oximetry is limited to areas, such as fingers and earlobes. Physiological conditions such as stress and temperature can affect the accuracy of these conventional devices.

Innovative aspects:

- RPO technology sensors precisely capture vital cardiovascular parameters such as pulse rate and pulse rhythm.
- Low power consumption, enabling continuous monitoring in non-clinical environments.
- Does not require tight skin contact. This prevents common occlusions and discomfort and can be worn comfortably around the clock.
- Wireless monitoring functionality
- Small and lightweight, easily embedded in wristwatch-type devices
- Not limited by physical activity

A new sophisticated product developed to assist mentally disabled persons in vital sign monitoring and in preventing suicides among prisoners is currently used by the Israeli Prisons Service.

Partners are sought to distribute and provide technical support for the company’s varied product lines.

www.spowitalsigns.com

Lowering European costs for super-quality sutures

A determined David has emerged from Israel to break the grip of the Goliaths in the European market for high-quality surgical sutures.

Under pressure to lower costs, hospitals have grim choices in purchasing sutures essential for daily operations.

To maintain high quality, they can either pay the high prices demanded by the large international companies that dominate this specialty segment, or risk working with a small company that charges less, but may offer sub-optimal products.

A specialist in surgical instruments, Intromedix teamed up with Ohad Lavi last year to shake up that equation.

Formerly an executive with one of the large players in surgical sutures, he is building on early successes in South America and Russia that helped bring production up to speed in order to service Western Europe.

Ohad Lavi has also expanded the Introsutures product portfolio for original equipment manufacturers (OEMs) beyond generic models to include leading-edge absorbable and non-absorbable materials with a range of needle types.

Introsutures (at MEDICA, Hall 16, Stand G40) are CE-certified, authenticated by German TUV and Scandinavian DNV labs, which are known for strict factory assessments and tough quality assurance systems.

Manufactured in France, the top-quality needles are composed of high quality 300-series steel Enova and Xflex, a specially developed super alloy for cutting needles.

Absorbable sutures include IntroV polyglycolic Acid and IntroP polidioxanone materials with highly customisable features for tensile-strength and absorption rate.

‘Our offer for enhanced OEM manufacturing is a highly tailored customisation of high-quality products with one-call responsiveness at a price point that can allow hospitals to realise savings of 30-40%,’ Ohad Lavi confirmed.
HemaClear brings clear advantage for orthopaedic surgery

You can always count on the best to come through in an emergency.

Earlier this year, when an earthquake struck Haiti, medical teams arriving on the scene of the disaster quickly saw an urgent need for orthopaedic surgery for the vast number of trauma injuries.

They immediately sent out a call for HemaClear, a self-contained, sterile tourniquet that creates a bloodless surgical field in seconds.

OHK Medical Devices responded by reaching out to its networks across the USA and Europe to meet that sudden demand.

The revolutionary design has established HemaClear as the gold standard in orthopaedic surgical care.

In the centre of the device, a specially engineered silicone ring exerts just enough circumferential pressure to squeeze blood out and block its flow at the occlusion site without damaging soft tissue and nerves.

After placing the ring on the extremity of the limb, the surgeon pulls handles on the ring proximally to roll the stockinet sleeve up the limb.

The only single-use device to quickly exsanguinate and occlude, HemaClear creates a larger, dryer surgical field with a better view of anatomical structures and also allows surgeons to place an implant closer to the site.

Greater access assures a safer, more successful surgical outcome, proven worldwide in over 150,000 surgical cases.

This innovative technology saves precious OR set-up time and eliminates over 100 separate steps that can add as much as $300 to every procedure.

From distal foot and hand surgery to total joint replacement, HemaClear is offered in a full range of sizes to accommodate every patient type, from paediatric to obese.

Elmedical creates a hot opportunity in urological diseases

There had to be a better way to treat patients with painful bladder diseases or prostatitis.

After working as a team for 20 years pioneering techniques for both ablative and non-ablative therapies for urological disease, the founders of Elmedical, Uzi Eshel and Jacob Lazarovitz, developed a novel approach with distinct advantages for both patients and treating physicians.

Their innovation is a synergistic effect of combining hyperthermia with drug instillation into the bladder in a procedure that frees patients from the adverse effects of current treatments and can be administered in an office setting, instead of an intimidating medical centre.

Elmedical’s proprietary technologies, UniTherma and DuoTherma, perform non-ablative high temperature treatment (hyperthermia) based on conductive heat, which is better controlled than other forms of energy and administered precisely and uniformly.

The drug-heat synergy enhances drug uptake by cells due to an increased blood-flow and improved intracellular drug distribution, an increased permeability of the cell membrane and an enhanced drug reaction rate and metabolism.

The therapy is indicated for bladder cancer, prostatitis, and painful bladder syndrome/interstitial cystitis. In bladder cancer, the drug-heat synergy also inhibits DNA repair in damaged neoplastic cells.

The office-based procedure benefits patients in a painless treatment that enables them to return to normal activities the same day. Over 1,600 procedures have been performed with no adverse effects.

The procedure requires only topical anaesthesia and eliminates any need for post-procedure catheters, as well as rectal, bladder or tissue temperature probes.

With CE certification, the Elmedical devices are currently sold in France, Italy, Spain, Croatia, Greece, the Ukraine and Israel.

Elmedical will be actively seeking distributors and strategic partners at MEDICA 2010.

Signalling the route to new business

Hundreds of deals are made every day of MEDICA, yet few catch the attention of the entire medical device industry.

If those headline-grabbing moments are a measure of success, then entrepreneurs looking for a major change to grow business should follow the strong direction of Signal Business Development.

Israel’s largest business development consultancy, Signal has scored headlines for clients with surprising regularity.

Some recent examples include InSightec, announcing the launch of its new ExAblate systems in Europe, or Deep Breeze rolling out its radiation-free pulmonary imaging system in the USA, or Flexicath raising an additional round of $2.2 million in financing.

Signal boasts an impressive client list of passionate entrepreneurs it has helped to grow by working with them to better understand their market, identify competitive advantages, extend their reach, and ultimately achieve their business goals.

‘We continue to assist clients beyond the strategic level in a variety of ways, from helping them tell their story to writing door opening business plans, to introducing them to qualified partners and customers,’ said Maura Rosenfel with Signal.

‘A business plan can evolve into a platform for discussion, self-examination, and decision-making. It becomes a sounding board for each individual of the management team to express his or her point of view.

‘Suddenly,’ she added, ‘what was an urgent I-have-to-have-it-tomorrow document screeches to a halt as critical issues are reconsidered, or there are changes in direction.’

Other Signal services include partnering with OEMs, licensing agreements, sales channel development and marketing communications.

Fast, accurate diagnosis for women’s infections

A unique test from 3QBD is addressing a problem affecting countless women – and enhancing the ability of their physician to diagnose the most common vaginal infections.

Until now, a doctor had to choose between expensive laboratory tests or decidedly low-tech guessing to determine whether a vaginal infection is present.

With an innovative VGTest bio-device from 3QBD, an infection can be accurately and inexpensively diagnosed in 60 seconds and identified as one of the three possible infections: bacterial vaginosis, candidiasis (yeast infection) or trichomoniasis.

This quick, qualified and quality diagnosis – the source of the 3Q name – is a breakthrough technology solution that brings cutting-edge biotechnology into the examination room.

The VGTest device has demonstrated accurate diagnosis rates of over 95% for bacterial vaginosis and 3QBD’s next-generation platform, now completing clinical study, is expected to return results showing a success rates well over 90% for candidiasis and trichomoniasis, according to preliminary findings.

Based on the well-established and scientifically proven ion mobility spectrometry (IMS) technology, the 3QBD device works by measuring elevated biogenic amines present in infections.

Chemical changes in living systems, or degradation of cells after death through enzymatic and microbial processes, are accompanied by the breakdown of amino-acids and production of biogenic amines.

Future developments for 3QBD include expanding research into oncology to detect certain cancers.

The VGTest device will be at MEDICA 2010. Hall 3, Stand E44.
Hanita SeeLens minimises surgery for maximum vision

A rising star in the medical device ophthalmic market, Hanita Lenses introduces another innovative implant for cataract surgery that further minimises the surgical intervention while providing patients with maximum benefits for multifocal vision.

The new hydrophobic intraocular lens from Hanita Lenses, SeeLens HP, is made of hydrophobic material that provides the patient with an excellent quality of day and night vision by using state-of-the-art, aberration free aspheric optical design.

The material has an excellent stability and biocompatibility with a unique combination of elasticity and strength, as well as bio-adhesive characteristics, resulting in reduction of secondary cataract procedures.

Implantation is achieved with an easy, safe injection through a mini incision of just 1.8 mm, according to Uriel Abas, who leads a mini incision of just 1.8 mm, an easy, safe injection through secondary cataract procedures.

Implantation is achieved with an easy, safe injection through a mini incision of just 1.8 mm, according to Uriel Abas, who leads international marketing for Hanita.

With excellent material memory and superior fold ability, the lens is slowly released in the eye and gently unfolds.

“The bottom line is that Hanita has brought out something new and unique that changes outcomes for patients,” Uriel Abas pointed out.

Hanita also offers to customers unique capabilities for manufacturing with state-of-the-art milling, advanced clean rooms and the highest level quality control.

‘In a batch of 1,000 lenses we manufacture, we check every lens to assure zero defects and that no problems are reported to surgeons after implantation,’ he said, adding that Hanita also prides itself on responsive service. ‘We are small enough and smart enough that if we receive a special request from Mexico, we can deliver the solution the next day.’

Infusion therapy will never be the same

Insertion procedures for intravenous catheters can be complicated, especially if the physician or qualified nurse is unavailable.

Designed with caregivers in mind, the M29 Catheter from Flexicath revolutionises IV therapy with the world’s first easy-to-place, touch-free midline.

Protected by a flexible sterile silicone sleeve, the M29 features a unique 360 Maximum Barrier to eliminate touch contamination and dramatically reduce the risk of catheter-related bloodstream infections.

Other design features include an integrated sterile barrier to prevent airborne and touch contamination, colour-coded hub and integral pivot reduce the potential for errors, and a peel-away introducer to prevent catheter migration.

To minimise exposure to blood borne pathogens, the catheter locks into the introducer while the catheter is advanced into the vein.

For home infusion or in a care setting, the M29 reduces placement time by over 50% by minimising draping requirements.

In an emergency setting, unlike traditional peripheral IVs that require rotation within 48 hours, clinicians can now choose the option of an IV catheter that stays with the patient for the duration of therapy, even up to 29 days.

Combining familiar methods with innovative design, Flexicath develops breakthrough catheter insertion systems to ensure simple, safe, and sterile intravenous catheterisation.

The company’s products feature an original design with FirmGrip, a 3-D maximum barrier that virtually eliminates the risk of catheter-related bloodstream infections.

At MEDICA 2010, Shai Alisar, CEO of Flexicath, will be seeking alliances with manufacturers, as well as distribution agreements. He said his targeted geographies include Germany, France, UK, Italy, Spain, South Africa, and Australia.
**View surgery live on your iPhone**

Reality television has never been so vivid, or instructive. Responding to physicians’ needs for anytime-anywhere continuing medical education, the Israeli firm Orpheus launched a unique on-demand video (VOD) system enabling medical teams to examine surgical procedures.

A spin-off of 4UTV, Orpheus built on core VOD system, adding select components to create a fully-adaptable video application custom-designed to medical education.

Video and audio are captured directly from a camera in the operating theatre, or mounted on an endoscope used in a surgical procedure. The procedures can be broadcast live, as well as recorded and archived for on-demand viewing or for documentation.

Orpheus’ newest feature is an iPhone mobile interface to the xStream VOD system, greatly expanding subscribers’ capacity and extending the availability of surgical videos.

Beyond teaching and training, applications for the service include online consultation with medical experts, medical documentation of patients, statistical analysis, academic research, management control and quality assurance.

A digital recording of medical procedures streamed directly to an on-site server and live procedures are available for unlimited viewing in real time. Recorded procedures can be dynamically searched by categories with a smart data fetching capability and viewed and reviewed from any location at any time.

Add-on features from Orpheus include bi-directional, on-screen display for guideline and instructional usage as well as bi-directional communication ‘talk back’ for video and audio communication with the operating room.

At MEDICA 2010 Orpheus Director Tovi Carmon will be seeking strategic alliances, targeting distributors specialised in the endoscopy field, as well as endoscope and surgical accessories manufacturers.

**NanoVibronix for pain therapy at home or work**

Novel applications for a proprietary therapeutic acoustic technology have developed a sound business for NanoVibronix.

The company’s patented technology enables the creation of miniature transducers that transmit low-frequency, low-intensity ultrasound through flexible materials surfaces.

This unique development can be utilised for a variety of medical applications requiring low-cost therapeutic ultrasound qualities.

NanoVibronix PainShield, for example, addresses limitations of conventional therapy based around large stationary devices that require patients to be transported to a hospital or clinic and thereby decreasing compliance and the frequency of the therapy.

A portable patch-based diathermy device, with targeted slow-release ultrasound, PainShield may be used for localised pain therapy in the office or home without needing medical personnel to apply it and without any side effects.

Studies have shown usage results in anti-inflammatory effects as well as a reduction of acute and chronic pain, spurs heel and tendon injury. PainShield may be used immediately post-injury and post-surgery.

PainShield has received both the CE mark and an FDA clearance. Patient benefits include ease of application and use, faster recovery time, high compliance, safety and effectiveness.

NanoVibronix recently introduced Ultrasound Enhanced Instillation Therapy with the WoundShield patch, which allows enhanced wound therapy by combining PainShield expedited wound healing together with its phonophoresis, improving permeability of instilled fluids such as disinfectants, antibiotic and hyper-oxygenated saline.

The company’s UroShield prevents biofilm formation on catheters, thereby decreasing risk for urinary tract infection, increase antibiotic efficacy and decrease pain and discomfort associated with urinary catheter use.

At MEDICA 2010 NanoVibronix will be seeking to expand its distributor network with a focus on Germany, France, Italy, UK, Spain, and Scandinavia.

**ElsMed builds turnkey imaging centres worldwide**

From California to Bolivia to Ghana to Russia to Cyprus – and the engineering team from ElsMed is still going strong from Antigua to India, planning, shipping, and installing medical diagnostic imaging centres.

Elsmed established its reputation as a trusted source for top quality and reliable service for fully refurbished diagnostic imaging medical equipment at an affordable price level. The firm services and supports over 150 systems worldwide, covering MRI, CT, ultrasound and nuclear medicine systems.

The company is now building on its expertise with complete turnkey projects for diagnostic imaging centres and hospitals. The full service begins with an initial consultation followed by a functional and architectural evaluation that leads to complete site planning. Selecting new and refurbished equipment and packaging the equipment for shipment extends the continuum of service.

The company sees no geographic limit for installations, and the long list of references proves this ambition with completed projects to the four corners of the world.

Elsmed also extends a full education service, with training to give clinicians practical operating experience, and also technical training for on-site biomedical engineers to maximise up-time for equipment.

Technical support and equipment services supplying all spare parts are offered 24/7 while on-line, remote-diagnostic support is offered in real time.

At MEDICA 2010, the ElsMed will be looking for dealers of refurbished medical equipment as well as medical centres seeking turnkey projects for diagnostic imaging – anywhere in the world.
CoolSense makes injections safe and painless

You may have overcome the natural fear of needles, but there are infants, the elderly and a good number of adults who are not so brave – with good reason. Medical injections, the most common healthcare procedure worldwide, can hurt and sometimes be harmful, especially for diabetics or medical aesthetic patients who regularly undergo the procedure.

The doctors and caregivers with the M.D. Clinic Group, based in Tel Aviv, collaborated with CoolSense Medical Ltd. to develop a well designed and practicable solution.

The innovative CoolSense does away with the stress and fear associated with receiving injections with a hand-held, pain numbing applicator that acts within 3-5 seconds to anaesthetise the site of injections with no after effects.

Light as a feather, CoolSense features an anti-infection mechanism that makes it an invaluable tool for healthcare personnel when performing a medical or cosmetic skin invasive procedure.

Suitable for homecare settings, CoolSense makes an unpleasant task bearable, greatly improving the quality of life for individuals who are obliged to undergo injections on a daily basis.

At MEDICA 2010 CoolSense Marketing Manager Rami Bakal will be seeking potential distributors, primarily in Europe, with a focus on Germany, France, Switzerland, the United Kingdom.

Artisan Sonics streamlines OBGYN ultrasound workflow

The key interface in obstetrics and gynaecology is between physician and patient, not on the computer screen.

Artisansonic keeps the gynaecologist focused on the patient by streamlining the workflow for practitioners and their supporting staff.

Dr Yoram Alperovitch, who leads Artisansonic, continually conducts fieldwork to maintain close collaboration with doctors, identify needs and transform solutions into applications that enhance the work experience and environment as well as save time and money.

The Archiver, the firm’s flagship product, allows the OBGYN ultrasound practitioner to turn even complex ultrasound examinations into routine procedures.

This specialised OBGYN workstation combines ultrasound images with examination data, saving video recordings and images, as well as critical measurements to the workstation.

An ideal management solution for OBGYN ultrasound practitioner, The Archiver shortens the reporting and documentation process by 25-45%.

The simplified interface of The Archiver means users with very basic computer skills can quickly record exams and generate comprehensive reports.

The software runs on any portable or desktop PC for office use, while in large clinics multiple workstations can be installed to work with a single data base server and connect with the organisation’s healthcare IT system.

Other Artisansonic software modules for OBGYN practitioners include a pregnancy supervision package, visit scheduling, billing and remote facility exams archiving.

At MEDICA 2010 Dr Alperovitch will be seeking medical equipment representatives and resellers across Europe and Asia.

The next-generation Flight 60 ventilator takes off

Following in the path of the workhorse HT50 ventilator, the Flight 60 earned its wings earlier this year by gaining FDA approval and a CE mark.

At MEDICA 2010, Flight Medical will launch this next-generation portable ventilator, aiming to circle the globe with sales success.

The HT50 is a tough act to follow, having sold over 12,000 units since its launch. Yet the feature rich Flight 60 is likely to reach new heights. According to Flight Medical, this ventilator will match the reliability of the HT 50 and then go beyond its performance.

The new model features an intuitive seven-inch touch screen that allows more flexibility in ventilating a broad range of patients.

The user interface enables quick, easy access to all commonly used modes, as well as to all advanced options. Extensive alarm sets position the Flight 60 at the highest safety level.

Exhalation volume measurement, advanced external communication capabilities, internal battery hot-swap and more are all packed into an even lighter weight ventilator.

Flight 60 is also designed to take on a broad range of applications, including homecare, long-term care, emergency and transport, and to serve in multiple hospital and sub-acute settings.

New battery technology allows up to 12 hours of autonomous operation, while Hot Swap capability gives the ventilator practically unlimited independence.

Established in 1996, Flight Medical Ltd. specialises in the development, manufacture and marketing of high-end respiratory life supporting equipment. During MEDICA 2010, Flight 60 will be demonstrated (Hall 16, Stand 42) and the company intends to develop its worldwide distribution network further for Flight 60.
Train your brain to see better

Can’t imagine you could train your brain to see better? Consider this: The FDA has approved a therapy to do just that.

NeuroVision is a non-invasive, patient-specific technology for enhancing vision neurologically and is used to improve and correct various visual impairments.

The average vision improvement is more than two lines on the visual acuity eye chart and a 100% increase in contrast sensitivity.

NeuroVision has been applied to successful treatment programmes for more than 3,000 patients in Europe, the USA, and Asia, and has received FDA approval to treat Adult Amblyopia, or lazy eye, hitherto considered untreatable.

The programme is also used to reduce or eliminate the need for glasses in people with a low degree of myopia, and it delays the need for reading glasses in people with early presbyopia. In post cataract patients and post laser surgery patients, the treatment enhances surgical results and shortens the adaptation period following surgery.

The NeuroVision training system is interactive, web-based computer software that provides a series of individualised visual stimuli designed to enhance the neural interactions in the visual cortex. The treatment is sold only through ophthalmologists or optometrists, who examine and monitor patient’s progress.

The visual training regime facilitates neural connections at the cortical level. The perception depends on both the optical input received from the eye and the neural processing of that input. NeuroVision improves quality of vision, measured by contrast sensitivity and visual acuity, by enhancing neural processing in the primary visual cortex.

At MEDICA 2010 the company CEO Yair Yahav will meet with distributors to establish representatives across Europe, Asia and the Middle East.

Are you getting maximum performance from your treadmill? BSP Biological Signal Processing has developed, and is now commercialising, a new generation of advanced processing for the ECG signal that could greatly boost diagnostic performance for ischaemic heart disease (IHD).

The market opportunity is enormous, and after all, the treadmill is ready for an upgrade in this new century.

Cardiovascular disease (CVD) is now the number-one cause of death in the developing world and a growing burden on healthcare systems. A third of the cost is attributable to IHD alone. BSP worked with leading academic research institutes and reference hospitals to develop its HyperQ technology that significantly enhances the clinical ability to detect IHD through a low-risk, non-invasive and highly accurate technique.

Research systems facilitate data analysis by exporting all test parameters and measurements in a configurable format via user-friendly interface.

BSP offers a range of ECG products based on the HyperQ technology. These include complete systems for routine clinical use, research-oriented systems and OEM products.

The HyperQ EX-300 Stress System, which has US FDA clearance (510K) and CE marking, is a high quality 12-lead ECG system with the unique additional capacity to analyse high frequency components of the ECG signal.

The HyperQ AD-100 Add-On Stress System is a high resolution ECG system reported to provide more sensitive results and less false alarms. A standalone device that seamlessly integrates with any conventional stress ECG system, HyperQ AD-100 received the CE mark.

At MEDICA 2010, BSP will seek to establish business partnerships with equipment and healthcare providers to extend its global marketing and sales presence.

Proactive patient monitoring wins FDA approval

Avner Halperin, CEO of EarlySense, will arrive at MEDICA 2010 with compelling proof of performance for an innovative patient monitoring system and plans to launch an aggressive sales campaign in the world’s largest market for the device. ‘We are creating an entirely new industry with EverOn and are excited about the results of this research that shows that the EverOn turns the hospital bed into a safer place,’ he explained.

An automatic, continuous, contact-free patient supervision device, the new EverOn system follows a patient’s vital signs and movement, providing nurses with early detection of warning signs and alert notifications of changes in patient condition.

The EverOn system is composed of a unique sensing unit placed beneath a patient’s mattress, a bedside unit to processes and display data, and a nursing station display that enables complete coverage of a unit and links to nurses’ mobile devices.

Results of a multicentre study found that patients picked up by the EverOn system for alerts had suffered a dramatic 12.2 times greater chance of a major deterioration. ‘Early identification has a very significant potential impact on improved outcomes in hospitalised patients.’

A standalone device that seamlessly integrates with any conventional stress ECG system, HyperQ EX-300 reported to provide more sensitive results and less false alarms. A standalone device that seamlessly integrates with any conventional stress ECG system, HyperQ AD-100 received the CE mark.

At MEDICA 2010, BSP will seek to establish business partnerships with equipment and healthcare providers to extend its global marketing and sales presence.

Innovative outsourcing to med-tech OEMs

B.R.F. Engineering, a high-tech firm based in Nazareth Illit, provides comprehensive end-to-end integrated outsourcing solutions for original equipment manufacturers (OEMs).

The company’s portfolio includes conceptual and machine design for a medical research robot, machine design for an advanced cardiac imaging system, and machine design and manufacturing for a bio-medical, high-resolution micro drive.

With integrated, end-to-end solutions for design, development and manufacturing, B.R.F. facilitates and improves the level of operations for customers, reducing time to market for products and lowering costs at every point in the process from conception through to production.

The firm’s services include:
- Machine design for the high-tech, bio-tech, micro-electronics and food industries.
- Electronic packaging design, from the initial setting, production file and product prototype.
- Industrial machine design.
- Mechanical guidance and backup, ending with current production in short time frames.
- Finite Elements Manufacturing (FEA).
- Computer aided design services (CAD).
- Technical writing (user manual including operational methods, assembly process and test procedures), and brochures.
- In-house production.

B.R.F. will aim for contact with OEMs from Europe and America at MEDICA this year.
Wet wipes save lives

‘Let’s talk about how wipes can save lives in hospitals,’ said Maya Tal, Pharma and Institutional Sector Manager with Albaad Pharma, one of the three largest producers of wipes worldwide. Actively seeking distributors and hospital administrators ready to bring the firm’s products to Europe, Albaad’s new MedWet line, a one-step economical solution, will be on show at MEDICA. ‘In Europe alone, five million people are affected by healthcare associated infections, a particularly tough challenge for hospitals because they are fighting superbugs that have survived all types of antibiotics and, being passed from patient to patient, become more and more dangerous,’ she said. ‘Studies show these potentially lethal pathogens can survive on dry hospital surfaces, such as door knobs, bedrails and trays.’

Environment and equipment sanitation is one of three key strategies for combating infections in hospitals recommended by the World Health Organisation and the European and American centres for disease control. Disinfecting wipes represent 75% of the disinfectant market in the USA, the remainder being liquids, she pointed out – infection rates are declining in America. In Europe traditional approaches with liquids continue to be used dominantly. ‘We see an opportunity among hospitals that want to provide staff with new methods to reduce infection and for sanitation companies that want to offer a new service for their customers. Come to the experts to be sure of applying the right formulation – mistakes can be costly.’ Maya Tal said, adding: ‘We don’t just make wet wipes at Albaad; we make it our business to know everything there is to know about wipes. That’s why we maintain product leadership.’

Garments and textiles

Track usage, prevent losses

Losses in the dispensing, retrieval and inventory management of textiles could be cut by using a patented, automated system from Polytex Technologies Ltd. This system provides real-time information and detailed reports on inventories of uniforms, garments for medical personnel, towels and any other form of textile passing through a healthcare supply chain.

An innovative textile identification technology increases speed and reliability of service, while boosting capacity and reducing over 40% of textile inventory costs. The designated distribution of items decreases handling of textiles by staff and reduces storage space requirements.

Polytex products are divided into textile dispensing units and textile return units for various applications. The technology enables speed in loading items to the system, very low maintenance needs, while providing high capacity at relatively low costs.

Following a detailed costs analysis comparing garment and uniforms handling prior to a Polytex installation to the situation after its installation, the Assaf Harofeh Medical Centre in Israel has ordered additional systems. Results revealed 20% fewer garments and uniforms were sent to laundry every month, inventory could be reduced by almost 30% and losses of textiles and uniforms were reduced to natural wear and tear only.

Polytex systems are also used by medical centres in Spain and France.

C-Boot pumps lower limbs with kinetic energy

Using the body’s own kinetic energy while the wearer is walking, C-Boot enables patients suffering vascular conditions to maintain complete mobility without the need for cumbersome external pumps. At home or work, patients simply connect the portable Mini-Compressor to receive dynamic compression therapy.

C-Boot’s patented system is a wearable sleeve comprising a unique pneumatic ‘brain’ and several inflatable chambers that wrap the leg. The system inflates the chambers while an individual is walking in a gradient and sequential cycle, which leads to blood release from both the superficial and deep veins.

This strengthens the body’s natural tendency to enhance lymphatic and venous return, and enables the blood to re-circulate for preventing diseases such as leg ulcers, chronic venous insufficiency and stasis dermatitis, as well as and other conditions that require compression therapy, the firm explains. Easy to put on and remove, the boot-like half-leg garment was developed by the C-Boot company that also manufactures a line of advanced compression products based on its patented proprietary technological knowledge.

All C-Boot’s products are FDA and CE approved and the firm reports generating revenues through sales to distributors. At MEDICA 2010, C-Boot said it will focus on expanding its worldwide presence, meeting with potential customers that include clinics, homecare, orthopaedic and rehabilitation centres.
At MEDICA 2010 the focus will be on two medical devices developed by the firm that have won regulatory approval worldwide, are endorsed by leading medical centres and are the focus for drug discovery programmes at several major pharmaceutical companies.

Both Itamar’s Watch PAT200 and Endo-PAT2000 devices are based on the same non-invasive technique of measuring changes to the peripheral arterial tone to determine changes in the physiological condition of a patient. The PAT bio-sensor is embedded in a simple finger cuff and detects a signal that opens a window to both the cardiovascular system and the autonomic nervous system with significant clinical benefit.

The Endo-PAT2000 device enables physicians to reliably measure endothelial function and identify pathological cases of endothelial dysfunction at early stage, a precursor of cardiovascular disease.

The Watch-PAT200 provides a complete diagnosis of sleep-related breathing disorders and sleep staging with unparalleled ease of use. ‘Watch-PAT is a full sleep lab in the comfort of a patient’s home,’ explained Itamar CEO Dov Rubin. ‘It provides the full sleep architecture so that at the end of an overnight test we can give full assessment of stages of sleep and the obstructive sleep apnoea episodes.’

At MEDICA 2010, Itamar will seek to establish a wide distribution network in Europe and Brazil.

Clinics report a significant reduction in pain in excess of 30% and substantial improvement in patient’s conditions across a broad number of musculoskeletal applications, with no negative side effects. Portable, rechargeable, safe and easy-to-use, the B-Cure Laser combines an effective therapy with the ability to provide immediate and continuous treatments, thus enabling faster recovery.

In January, 2010 the B-Cure Laser received CE 0120 approval for indications of pains in the knee, neck, lower and upper back, muscle, sports injuries, arthritis, fibromyalgia, tennis elbow, Achilles tendonitis, carpal tunnel syndrome, inflammation, wound healing, burns, fresh surgical scars, post-pregnancy stretch marks, acne, herpes simplex, gynaecological medicine, acupuncture.

At MEDICA 2010, Erica-Carmel representatives for Good Energies will extend distribution networks for Europe, the USA, South America and Australia, as well as demonstrate the self-healing power of B-Cure Laser to visitors.

Risk of pandemic infection requires a serious response. The IsoArk isolation chambers series is designed to quarantine infected patients and staff to protect the environment outside the chamber from contagious diseases such as SARS, Ebola and TB.

The creator of IsoArk, Beth-El Zikhron Yaqov Industries Ltd. brings impressive credentials to a medical community with products used by more than 60 armies that face threats of Nuclear, Biological, and Chemical (NBC) contaminations.

For healthcare, the company has developed an array of stationary and portable isolation chambers, clean/sterile rooms and stand-alone air filtration systems for various applications in hospitals and ground or airborne ambulances.

IsoArk is a portable, negative pressure chamber designed for a rapid set up of a biologically isolated environment, for quick, effective isolation. The system includes an airlock attached to the main chamber and an air filtration system. A special feature of the system enables patient treatment from outside the quarantine area, avoiding contamination of equipment and staff. IsoArk N36-2 is a portable chamber designed to transport one patient under isolated conditions. It fits on any standard stretcher and is ideally suited for use in ground and airborne ambulances.

IsoArk N36-2 is equipped with its own negative pressure filtration system, an ‘all around’ zipper and integrated gloves and utility portals. The system can operate for up to 10 hours on battery. The collapsible, lightweight structure enables quick set up of the system and minimal storage requirements when not in use.

At MEDICA 2010 ISO the firm’s representatives will seek agents able to promote the products to the medical and emergency preparedness sectors in specific geographies worldwide.

Skin preparation prior to invasive procedures, from simple injections to complex surgery, is critical to prevent patient infections.

Sion Biotext Medical specialises in unit-dose and multi-dose products that help physicians and medical staff to protect patients and reduce the infection risk.

The advanced product line includes new chlorhexidine and alcohol prep pads in various package sizes and dispensing options, each designed to address specific uses and needs. The product line also provides additional value to hospitals in efforts to reduce spending, with attractive costs per unit and efficient volumes tailored for each usage.

Skin Care and Patient Treat-
TeleMaster provides a turnkey platform for telemedicine

The potential for teledmedicine are tremendous for expanding access to clinical services, cutting costs and improving the quality of care. However, pulling together the maddening array of parts and pieces needed for a secure and reliable service have vexed healthcare systems and paralysed progress towards e-health.

The TeleMaster system from eWaveMD could be a game-changer. A turn-key solution, TeleMaster is a secure platform providing physicians with diagnostics and treatment for patients who are physically remote. The architecture is proven, robust and flexible, scaling to match the needs of a clinical community and can be plugged into any healthcare system.

TeleMaster supports both centralised diagnostic centres for on-site physicians, as well as virtual distributed diagnostics in which physicians provide diagnostic services remotely from their clinics.

Supported with a centralised medical call centre, TeleMaster provides real-time emergency response while the central system automatically manages the entire medical process, collecting, transferring, diagnosing and publishing, as well as critical queue management and process management.

Patients receive results immediately, regardless of their location.

For the health system, diagnostic centre and physician, TeleMaster expands clinical service delivery to a wider region and a broader patient population. The system supports billing, management, workflow, and archiving, thereby improving efficiency by allowing caregivers to focus on medical services rather than administrative tasks.

Expand sleep lab capacity as patients snore at home

10 years of R&D has produced an FDA-approved software to analyse sleep data remotely and intelligently, and yield clinical-quality results.

Based on heart rate variability detected from an electrocardiogram, HypnoCore technology enables the convenient collection of data in patient’s homes and provides sleep laboratories with an opportunity for unlimited virtual expansion.

Patients simply send and receive their results and diagnoses over the internet at a fraction of the cost of conventional in-patient procedures.

The HC1000P algorithm enables a sleep study to be based on a single ECG channel that can be automatically scored to obtain information on sleep architecture and efficiency, arousals, autonomic nervous function and respiratory function during sleep. In this way the clinically validated algorithm provides a powerful new tool to diagnose sleep disorders in general and sleep apnoea in particular, revealing relevant information regarding sleep efficiency and sleep architecture and reaching a larger proportion of undiagnosed sufferers of sleep apnoea.

In the wellness and consumer healthcare market, HypnoCore technology will allow the average person to evaluate and improve their sleep on their own. HypnoCore will offer a web application for sleep analysis and a guide on how to improve sleep, to heart rate monitor users of the most popular brands, e.g. Polar, Suunto, Garmin, etc.

‘Yes it is our first time. We will not participate in the exhibition only in the business meetings,’ said HypnoCore, which will have representatives at MEDICA to meet with strategic partners interested in investing in the firm, as well as companies that can assist in building distribution channels.

Advancing diagnostics for vital signs with no blood, no pain

Cnoga is driven by a vision of a world of touch-free diagnostics where most blood tests can be conducted by the patients in their own homes with a simple non-invasive device.

Advancing this vision, the company’s break-through technology is based on real-time tissue photography that processes an image in real-time and applies sophisticated mathematical algorithms to analyse colour distribution in a dynamic range of a minimum 36-color depth.

The result is identification of the correlation between temporarily colour pigmentation and a specific biological or physiological parameter to yield measures for capillary blood sugar, heart rate, blood pressure, SpO2, capillary pH, haematocrit, haemoglobin, RBC count, blood perfusion, cholesterol, stroke volume, stroke volume variation, CO2 and more.

At MEDICA 2010, Cnoga will demonstrate three products:

- The Oximanometer measuring blood pressure without using air pumping, as well as pulse rate and SpO2 monitoring.
- The Hemoximeter measuring haemoglobin rate in tissue capillaries without using an invasive blood test using a finger device.
- The Glucometer, a pain-free, non-invasive device to monitor blood glucose level in tissue capillaries intermittently and continuously, using a finger device with an accuracy equivalent to standard finger-stick measurements.

Each device can show the capillary pulse waveform during monitoring, as well as the targeted parameter, recording these results in the device memory for review.

Cnoga’s business strategy is focused on distribution in the EU. At MEDICA, company representatives plan meetings with potential business partners and distributors.
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