

This Week in Nanotech 06.07.04 – 06.14.04

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THIS WEEK IN NANOTECH

NanoScience and NanoBusiness News from NanoApex

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weeks and months.

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NanoApex Corp. Announces Two New Versions of Nanocompany Database NanoInvestorNews (<http://www.nanoinvestornews.com>), the investment portal hosted by NanoApex Corp. (<http://www.nanoapex.com>) [profile], today announced the release of two downloadable versions of the popular NanoInvestorNews Nanocompany Database (NCD). The database is the largest global publicly accessible database of MEMS and nanotech companies; There are currently 808 distinct listings from all over the world with daily updates. All listings are moderated to ensure that only nanocompanies and not companies abusing the nano- prefix are included.

NANOSCIENCE NEWS

Louisiana consortium wins \$9 million grant

A consortium of Louisiana universities beat out competitors in a half-dozen states for a \$9 million federal grant to develop a research facility that could help launch high-tech startup companies and attract other federal research dollars. The new Center for BioModular Microsystems, or CBM2, will be housed in laboratory space on GSRI Road formerly owned by Albemarle Corp.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4619>

Pumping energy to nanocrystals from a quantum well

LOS ALAMOS, N.M., June 10, 2004 -- University of California scientists working at Los Alamos National Laboratory [profile] with a colleague from Sandia National Laboratories [profile] have developed a new method for exciting light emission from nanocrystal quantum dots.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4618>

Studies on electric polarization open potential for tinier devices

ARGONNE, Ill. (June 11, 2004) Researchers from the U.S. Department of Energy's Argonne National Laboratory and Northern Illinois University have shown that very thin materials can still retain an electric polarization, opening the potential for a wide range of tiny devices.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4617>

Nanotechnology Laboratory Opens

A new 2 million laboratory that will place the University of Bath [profile] at the centre of nanotechnology research was formally opened on June 9.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4616>

Self-assembly made easy

Physicists in Ireland have developed a novel technique that allows "hands-free" manipulation of mesoscale device components for the first time. The method employs electric fields to direct the assembly of the

components into integrated systems and could be an alternative to conventional techniques for making electronic devices.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4615>

Sandia Nanotech Goes Platinum

Researchers from the DOE's Sandia National Laboratories (SNL) [profile] and the University of New Mexico (UNM) [profile] have developed a new way of mimicking photosynthetic proteins to manipulate platinum at the nanoscale. The method has the potential to change the metal's properties and benefit emerging technologies.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4614>

Body heat could power pacemakers

Scientists at Biophan Technologies [profile] in New York are developing a "biothermal battery" that turns the body's own heat into electricity.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4613>

BioBricks to help reverse-engineer life

Leaders of a new movement are kicking off the first Synthetic Biology 1.0 conference at the Massachusetts Institute of Technology [profile] this week. "Synthetic biology" is the blanket term for a multidisciplinary attempt to identify a class of standard operational components that can be assembled into functioning molecular machines.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4612>

Computing's New Screen Gems

Display Technologies Are Moving Rapidly To Thinner, More Flexible, And Efficient Systems. Motorola is using nanotechnology to grow, in low temperatures, clusters of tiny carbon nanotubes behind every dot on the screen.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4611>

Landmarks Recreated in Miniature

Miniaturisation experts from Newcastle University have recreated the towering Angel of the North sculpture and the world-famous Tyne Bridge so they are smaller than a pinhead and invisible to the naked eye.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4610>

Nanotubes Move Molten Metal

Researchers from the University of California at Berkeley [profile] have found a way to move globules of molten metal that are as small as 30 nanometers in diameter. The method involves condensing a globule of metal onto one end of a carbon nanotube, then using a voltage to drag the metal globule along the outside of the tube from one end to the other. .

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4609>

Lithography makes a connection for nanowire devices

Researchers at Harvard University [profile], US, have used a photolithography technique to set up interconnects to nanowire

devices. The method uses a statistical approach to ensure that a high proportion of the nanowires connects to the electrodes – there is no need to link the two components individually.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4608>

New Nerve Cells

Samuel Stupp professor of chemistry at Northwestern University [profile], says there may be a way to grow back injured nerve cells and repair damaged spinal cords, so that paralyzed patients can leave their wheelchairs behind.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4607>

Israeli researchers develop nano delivery method for nutrients

Jun. 09 – Two Israeli Ph. D. students have won an award from Hebrew University of Jerusalem [profile] for their work on the development of 'nanovehicles' that can successfully transport the desired components through the digestive system.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4606>

Introducing Silver Nano Health System

Samsung [profile] introduces the first of its kind technology employing the safe and sanitizing power of silver – the Silver Nano Health System. Samsung developed a process to create silver ions of nano size to safely coat fabrics, filters and surfaces in a colorless anti-bacterial armor.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4605>

MIT Recognizes Groundbreaking Nanotechnology Discovery of Winstead Patent Agent

HOUSTON, June 8 /PRNewswire/ -- At first glance, 6,645,455 does not seem a significant number, but it represents one of the most revolutionary inventions in recent U.S. history -- the patent for chemically derivatized carbon nanotubes. Poised to change the world of computing, medicine, and science, U.S. Patent No. 6,645,455, providing a method for separating and chemically modifying carbon nanotubes, was recently recognized by MIT's publication, Technology Review as one of the industry's "5 Killer Patents."

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4604>

Eco glass cleans itself with Sun

A revolutionary kind of glass that needs little cleaning could mean soap and chamois are binned for good. The Pilkington Activ glass has a special nano-scale – extremely thin – coating of microcrystalline titanium oxide which reacts to daylight.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4603>

Nanotechnology Film Wins Top Telly Animation Honors

Top award for video animation at the 2004 international Telly Awards has gone to two Concord (Massachusetts) creative firms, working together to create a film for MIT's exciting new nanotechnology laboratory.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4602>

Nano testers to diagnose heart woes in minutes

The Royal North Shore Hospital has started trialling world-leading nanotechnology said to be able to diagnose everything from a heart attack to pregnancy in less than 10 minutes. The Australian-developed technology could cut hours off the normal wait for crucial blood test results on suspected heart attack patients.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4601>

Cell Repair Nanorobot Design And Simulation

Simulation of simple mobile cell-repair nanorobot and its subsystems. Here, I want to focus on the purely simulation aspects of the cell repair nanorobot's functions and parts.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4600>

DNA Computer Kills Cancer Cells

Researchers from the Weizmann Institute [profile] in Israel have constructed a molecular-size computer that is programmed to find signs of cancer cells, and when they are present, dispense DNA molecules designed to eradicate those cells.

<http://news.nanoapex.com/modules.php?name=News&file=article&sid=4599>

NANOBUSINESS NEWS

Microbridge Technologies Announces Innovative Low Cost Electrical Trimming Device

Microbridge Technologies Inc., a privately held Montreal-based technology company announces here, today at Sensors Expo the availability of Rejustor(TM) devices -- the world's first electronically precision-adjustable, passive micro-resistor devices.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2909>

MemsTech eyes 30% of world market

MEMS Technology Bhd (MemsTech) [profile], which is expected to float on the Mesdaq market in August, aims to capture 20% to 30% of the world silicon microphone market in two years.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2908>

Businesses face the future at NanoTrends

More than 100 scientists, engineers and businesspeople gathered at the NanoTrends conference in Munich, Germany, late last month to hear the latest views on the future of nanotechnology. Topics under discussion ranged from applications and products to safety risks and investment opportunities.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2907>

JPK Instruments Grants Exclusive Marketing Rights for Great Britain Berlin (June 10, 2004) – JPK Instruments AG [profile], a Berlin-based specialist for nano-biotechnological applications, recently granted Scientifica Limited exclusive marketing rights for its products on the UK market. The company that is based in Harpenden, Hertfordshire, is

specialised in the sale of microscopes and biotechnological equipment. Scientifica has already successfully started UK sales on behalf of JPK Instruments.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2906>

Tegal Sells 900 Series Etch Systems for Silicon Oxide and Planarization Etch in Shanghai China

PETALUMA, Calif.—(BUSINESS WIRE)—June 9, 2004—Tegal Corporation [profile] (Nasdaq:TGAL) today announced the sale of multiple 903e plasma etch systems to a leading manufacturer of components for telecommunications and consumer applications in Shanghai China.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2905>

Kermit Hoffman, President of GE Infrastructure Sensing – America Presented Dynamic Keynote Address at Sensors Expo

Kermit Hoffman, president of GE [profile] Infrastructure Sensing – Americas presented a dynamic keynote speech at Sensors Expo & Conference titled, "Innovative Sensing Technologies that Drive Productivity, Quality and Safety." During his discussion, Mr. Hoffman talked about how in the coming years he envisions the world of sensing taking a gigantic step forward with MEMS based sensors, Nanotechnology-based material and several other exciting technologies right on the edge of just breaking out with some fantastic products.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2904>

GEMZ Corp. to Develop Solar-Powered Laptop Solution Using Nanofilms

NEW YORK—(BUSINESS WIRE)—June 10, 2004—GEMZ Corp., announced today that its wholly-owned subsidiary, International Nanotechnology Corporation (INC) is planning to develop a solar-powered solution for powering laptop computers.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2903>

Major new embedded memory technology announced

Cambridge, UK. 7 June 2004. Cavendish Kinetics, which was born out of Cambridge University, today announced a major new technology which will offer the lowest power and entry-cost embedded non-volatile memory (NVM) in the industry.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2902>

SIA wants more money for nano-electronics

The US needs to invest an additional \$1.5bn per year in semiconductor and nanoelectronics research, or risk falling behind in the global IT industry according to the Semiconductor Industry Association. SIA has called for the creation of a Nanoelectronics Research Institute to coordinate a massive nanotech research effort before the industry reaches the physical limits of CMOS (complementary metal-oxide semiconductor) technology

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2901>

Leading nanotech experts put 'grey goo' in perspective

A paper published today [9 June 2004] in the journal Nanotechnology

warns that fear of runaway self-replicating machines diverts attention away from other more serious risks of molecular manufacturing.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2900>

TEXAS REMEMBERS THE NANO WITH REVAMPED SITE

The Texas Nanotechnology Initiative today announced its new push to promote nano commercialization throughout the state and also announced the appointment of Joseph H. McCall as TNI's first executive director.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2899>

KP's Khosla Pulls No Punches, Slams Plans for Nanosys IPO

Vinod Khosla, one of the industry's most respected technology investors, has warned of an impending nanotechnology "bubble" and criticized plans by venture-backed Nanosys Inc. [profile] to become the first publicly traded nanotech company.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2898>

NanoDynamics Announces Phase II U.S. Navy SBIR Award

BUFFALO, N.Y.—(BUSINESS WIRE)—June 9, 2004—NanoDynamics, Inc. [profile], a leading manufacturer of superior nanomaterials, today announced that its subsidiary, MetaMateria Partners (MMP) has received a \$750,000 Small Business Innovative Research (SBIR) Phase II award from the United States Navy. MetaMateria Partners will use its proprietary technology to make nanosized ceramic particles to be used in producing transparent windows for military applications.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2897>

Wisconsin places high in nanotech venture capital, average in innovation

Speaking at the Bionanotechnology conference last week at the University of Wisconsin–Madison, Steve Crosby, editor of the nanotechnology magazine Small Times [profile], said Wisconsin is bursting with venture capital, but lackluster in innovation.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2896>

Last Call to Register for 2004 Michigan Growth Capital Symposium

ANN ARBOR, Mich., June 8 /PRNewswire/ — The 2004 Michigan Growth Capital Symposium (MGCS) is a week away, June 15 and 16, at the University of Michigan Business School in Ann Arbor, Michigan. Online registration is closing Sunday, June 13.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2895>

NEXENSE EXPANDS PRESENCE INTO U.S. MARKET

Israeli Company Appoints Asiale Huang to Lead US-based Operations
Hackensack, NJ Nexense [profile], an advanced sensor technology and research and development company, has expanded its presence into the U.S., moving its business operations to the New York Metro area. The company will maintain its research and development facility in Yavne, Israel.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2894>

Analog Devices Optimizes MEMS Accelerometer Performance for Automotive Security Applications

Analog Devices Inc. [profile] (NYSE: ADI), a global leader in high-performance semiconductors for signal processing applications, today introduced the two-axis ADXL213 iMEMS(R) accelerometer, the latest product in the ADXL2xx family of high-performance, low-g MEMS inertial sensors.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2893>

SUSS Installs First Ever 300 mm Cryogenic Prober at a US Semiconductor fab

MUNICH, Germany --(Business Wire)-- June 8, 2004 -- SUSS MicroTec AG [profile] (ticker symbol FWB:SMH) is proud to announce the installation of the world's first 300 mm semiautomatic cryogenic probe system capable of testing at temperatures from 400K(127(degree)C) down to 30K (-243(degree)C).

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2892>

Infineon Introduces Automotive Electronics Sensors

DETROIT--(BUSINESS WIRE)--June 8, 2004--At the Sensors Conference & Expo, Infineon Technologies [profile] (FSE/NYSE:IFX) announced three new sensor products for automotive safety applications. Two of the new products are Micro-Electro-Mechanical Systems (MEMS) based on the technology of SensoNor, a leading provider of tire pressure and acceleration sensors that Infineon acquired in 2003.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2891>

Harris & Harris Group Notes That Shelf Registration is Now Effective

NEW YORK--(BUSINESS WIRE)--June 7, 2004--Harris & Harris Group, Inc. (Nasdaq: TINY), today noted that its shelf registration of up to 7,000,000 shares of its Common Stock is now effective. Harris & Harris Group is a publicly traded venture capital company that now makes initial investments exclusively in tiny technology, including nanotechnology, microsystems and microelectromechanical systems (MEMS).

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2890>

Akustica Expands Management Team; Seasoned Financial, Technology Executives to Fill CFO, VP of Engineering Posts

PITTSBURGH--(BUSINESS WIRE)--June 8, 2004--Akustica, Inc., a pioneer in acoustic system-on-chip solutions, today announced that it has expanded its management team, adding seasoned financial and technology executives to help drive and manage the Company's ongoing growth. Steve Harrell, a former director of finance and business operations for Texas Instruments, has been named chief financial officer, and Steve Kornachuk, who previously headed product engineering at SiberCore Technologies, will serve as Vice President of Engineering.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2889>

Japan's Prince Masahito Hitachi Visits FEI at APEM

KANAZAWA, Japan, June 7 /PRNewswire-FirstCall/ -- Their Imperial

Highnesses Prince and Princess Hitachi of the Royal Family of Japan received a demonstration of FEI's [profile] new Tecnai(TM) G2 Spirit transmission electron microscope (TEM) at the 8th Asia-Pacific Conference on Electron Microscopy.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2888>

Medical dressing are silver lining for Nucryst Pharma. Nucryst Pharmaceuticals is making money today on its silver nanoparticle dressings for burns and chronic wounds. Profitable since 2001, Nucryst is a subsidiary of a Canadian company, the Westaim Corporation [profile], which has \$85 million in cash, no debt and may be a nanotech pure play that even a financial conservative could appreciate.

<http://www.nanoinvestornews.com/modules.php?name=News&file=article&sid=2887>

EVENTS

June 14, 2004 – June 15, 2004

INDUSTRYLINK 2004

http://news.nanoapex.com/modules.php?op=modload&name=My_Calendar&file=index&type=view&eid=197

June 16, 2004 – June 18, 2004

NanoForum Canada 04

http://news.nanoapex.com/modules.php?op=modload&name=My_Calendar&file=index&type=view&eid=195

June 20, 2004 – June 24, 2004

7th International Conference on Nanostructured Materials

http://news.nanoapex.com/modules.php?op=modload&name=My_Calendar&file=index&type=view&eid=126

June 28, 2004 – June 29, 2004

Nanotechnology and the Textile Industry

http://news.nanoapex.com/modules.php?op=modload&name=My_Calendar&file=index&type=view&eid=191

June 29, 2004 – July 2, 2004

Nano Training Bootcamp 2004

http://news.nanoapex.com/modules.php?op=modload&name=My_Calendar&file=index&type=view&eid=172

LATEST FORUM TOPICS

Toroidal armchair buckytube By Guest

<http://forums.nanoapex.com/viewtopic.php?t=281>

NanoDynamics Announces Phase II U.S. Navy SBIR Award By Guest

<http://forums.nanoapex.com/viewtopic.php?t=280>

Nanotech risk assessment forum ? By woolfy

<http://forums.nanoapex.com/viewtopic.php?t=279>

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