Science-USA (Boston+), February 2013

Table of Contents

swissnex Boston welcomes you to the 5th edition of the monthly newsletter *Science-USA (Boston+)*. This electronic publication is designed to report on trends in education, research, innovation and art. Created for busy people in Switzerland, the newsletter will consist of two spotlights on outstanding Swiss talents and a concise overview of the trend spotting developments in the science and innovation industries on the US East Coast. Additionally, we will provide you with a taste of swissnex Boston activities throughout the year.

Swiss Spotlight

Scientist: How to be more successful with social networks

(Peter Gloor, February 08, 2013)

Long before "Big Data" became a popular keyword, the Internet pioneer Peter Gloor had already begun to investigate Collaborative Innovation Networks, or COINs, by means of data-driven analysis. In his lab at the Center for Collective Intelligence at MIT's Sloan School of Management, he has been developing tools to increase the creativity and productivity of organizations through the structure and use of their social networks, by analyzing their digital artefacts - for example e-mail conversations or online profiles. Peter first came to MIT in 1991 as a Post-Doc supported by the Swiss NSF into the Advanced Network Architecture group, where core components of the Internet such as TCP/IP or the Web were developed. He went back to Switzerland in 1993 to work for UBS, PwC and Deloitte, re-joining MIT in 2002 as a researcher at the Center for Collective Intelligence.
http://swissinnovation.org/newsUS/web/2013/00-130208-7c.html

Startup: KNIME – Turning Big Data into Actionable Intelligence

(Michael Berthold, President KNIME, February 01, 2013)

A key competitive advantage for all organizations is the vast quantities of data they have. But that Big Data needs to be transformed into actionable intelligence to be useful. Swiss based KNIME.com AG provides the award winning KNIME open source platform for data mining and predictive analytics. First given the prestigious Gartner Cool Vendor award in 2010, KNIME has now been voted highest in customer satisfaction, winning in 70% of all categories particularly for its variety of techniques and its ease of use thanks to its modern interface. KNIME is now used by over 3000 organizations around the world. In 2012, an event was held at the Microsoft New England Research & Development Center in Boston.
http://swissinnovation.org/newsUS/web/2013/00-130201-af.html

swissnex Boston Events

AAAS: High-level Dialogue between Science and Policy

(swissnex Boston, February 16, 2013)

The American Association for the Advancement of Science is the world's largest general scientific society. The 2013 AAAS Annual Meeting was held in Boston under the theme "The Beauty and Benefits of Science". Accompanying the Annual Meeting, swissnex Boston took the lead and organized a high-level international dialogue on science and policy in partnership with the Consulate General of Japan and STS forum. Participants included Rita Colwell (former NSF Director), Koji Omi (Chairman STS forum; former Science + Finance Minister of Japan), Barbara Haering (European Research and Innovation Area Board), Eric Mazur (Dean, Harvard), Alexander Zehnder (former President ETH Board), Dirk Helbing (FuturICT) and Adrian Ionescu (Guardian Angels) among the 60 participants. – Supported on the media side by swissnex San Francisco, EPFL organized a joint workshop at Harvard. The topic focused on the engineering of the nervous system, where solutions to restore sight, hearing and mobility were discussed by experts, such as Silvestro Micera, Grégoire Courtine, Konstantina M. Stankovic, Joan Miller, and Philippe Renaud. – Another delegation from FET Flagship candidate FutureICT held a meeting in the MIT MediaLab under the lead of Dirk Helbing.
http://swissinnovation.org/newsUS/web/2013/00-130218-63.html

Basel Delegation and Launch of Friends of Basel Network in New England

(swissnex Boston, February 22, 2013)

A high-profile delegation from Basel visited Boston from Feb 20-23 on a Fact Finding Mission to revive the Sister-State agreement between Canton Basel Stadt and Massachusetts - an agreement was signed in 2002. Among the 13 delegates was Dr, Eva Herzog, Cantonal Councilor of Canton Basel-Stadt, Prof. Antonio Loprieno, President of the University of Basel and Iris Welten, CEO BaselArea. The Basel Delegation's intense program made up of meetings with representatives of the top universities and institutions in Cambridge and Boston. Together with Rafael Reif, President of MIT collaborations between MIT and University of Basel were discussed. An important event was the Basel-Boston Night where the Basel community in Boston celebrated the official launch of the Friends of Basel Network in New England. The delegates were satisfied with their visit in Boston and Prof. Loprieno was impressed by the innovative spirit in Boston.
http://swissinnovation.org/newsUS/web/2013/00-130222-ca.html
http://swissinnovation.org/newsUS/web/2013/00-130220-95.html

University of Zurich Alumni and Friends Boston Board founded

(swissnex Boston, February 21, 2013)

Together with over 30 UZH Alumni and Friends the long-desired kickoff of the UZH Alumni Boston Project took finally place on February 21st in collaboration with swissnex Boston. After words of welcome by Felix Moesner, Director of swissnex Boston, and Yasmine Inauen, Head of UZH's International Relations Office, Claudia Ruegger, Coordinator of the UZH's Alumni and Friends Boston Project, introduced the group to the project with a short presentation. An animated discussion and exchange of ideas followed this introductory part and finally ended with the set-up of the board. We are delighted to present the 4 members of the board, UZH Alumni and Friends Boston: M. Aikawa, E. Boros, R. Kern, and M. Oberli.
http://swissinnovation.org/newsUS/web/2013/00-130228-4b.html

2013 Life Science Night & MIT-European Career Fair

(swissnex Boston, February 22-23, 2013)

The 3rd annual Swiss Life Science Night took place at swissnex Boston on Feb 22. In conjunction with Roche, Novartis, Swiss Start-up Monitor, Medical Insights, Uni Zurich, Life Science Zurich, Uni Basel, EPFL and ETH, swissnex was transformed into an interactive career and academic fair. Over 200 students, researchers and young professionals flocked to the career night, armed with impressive resumés and eager to discover the current possibilities in Switzerland. The next day, on Feb 23, the 17th MIT-European Career Fair took place, attracting several thousand young talents from all over North America looking for opportunities in industry and academia in Europe. Like the previous fairs, swissnex Boston was present with its own booth, surrounded by a strong Swiss presence, including Roche, Swiss Start-up Monitor, University of Zurich, ETH Zurich, Life Science Zurich, EPFL and University of Basel.
http://swissinnovation.org/newsUS/web/2013/00-130222-00.html

Joël Tettamanti Exhibition at MIT Museum

(swissnex Boston, February 14, 2013)

swissnex Boston, MIT Museum and Pro Helvetia opened Compass Points, an exhibit by Swiss photographer Joël Tettamanti. The Opening Gala hosted 50 attendees who got a first look at the full exhibit and had the chance to discuss the works with the artist himself. Joël Tettamanti was born in 1977 in Efok/Cameroon and is a graduate of ECAL, Lausanne. Based in Zurich and Lausanne, he has worked from Asia to the Arctic Circle on assignment for magazines and commercial clients such as Wallpaper, Victorinox, Clariant, and Gigon Guyer. His work has been the subject of three monographs and numerous exhibitions in Europe. This is his first major solo exhibition in the United States.
http://swissinnovation.org/newsUS/web/2013/00-130215-33.html

>> More past events at swissnex Boston:
http://www.yourswissnexboston.org/

Swiss-USA Bilateral News

EPFL Joining edX MOOC

(edX, February 20, 2013)

EdX, the not-for-profit online learning enterprise founded by Harvard University and the Massachusetts Institute of Technology (MIT), announced today the international expansion of its X University Consortium with the addition of six new global higher education institutions. École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland, the Australian National University (ANU), Delft University of Technology in the Netherlands, McGill University and the University of Toronto in Canada, and Rice University in the United States are joining the Consortium and will use the edX platform to deliver the next generation of online and blended courses. This international expansion enables edX to better achieve its mission of providing world-class courses to everyone, everywhere, and is the natural next step to continue serving the large international student body already using edX on a daily basis.
https://www.edx.org/press/edx-expands-internationally

Largest Swiss education firm doubling in Cambridge

(The Boston Globe, February 03, 2013)

Based in Switzerland, with its North American headquarters in Cambridge, EF Education First has ridden the waves of globalization and experiential learning to become one of the world's largest international education firms. Currently, EF is doubling the size of its Cambridge campus, across from the Museum of Science. The company is constructing a 300,000-square-foot, $125 million building that will allow it to hire as many as 700 new workers, boosting its local workforce to around 1,500 employees. The expansion is expected to be completed next year.
http://swissinnovation.org/newsUS/web/2013/00-130203-2e.html

Switzerland-Massachusetts: New breast cancer drug

(The Boston Globe, February 22, 2013)

Federal regulators approved a highly anticipated breast cancer drug. The drug, which will be sold under the brand name Kadcyla, is considered a breakthrough treatment because it deploys a potent toxin that combines with an existing drug, Herceptin, to kill breast cancer cells. It could initially benefit as many as 15,000 patients who have a particularly aggressive form of the disease. Kadcyla will be marketed by the Genentech unit of Swiss drug maker Roche AG, which launched Herceptin in the 1990s as one of the first personalized medicines. But key components of Kadcyla were developed by Waltham-Massachusetts biotechnology company ImmunoGen Inc., including a proprietary cancer-killing agent and a "linker" that binds the medicine to a type of chemotherapy drug.
http://swissinnovation.org/newsUS/web/2013/03-130222-ca.html

1. Policy

Energy Department secretary Steven Chu to leave office soon

(The Boston Globe, February 02, 2013)

Energy Secretary Steven Chu will leave office soon. His departure had been widely expected, although Chu never confirmed it publicly. Chu, a physicist, is the first Cabinet secretary to come into office with a Nobel Prize (an honor he shared in 1997 for his work with supercooled atoms) and the first scientist to lead the department. President Obama said in a statement that Chu ''brought to the Energy Department a unique understanding of both the urgent challenge presented by climate change and the tremendous opportunity that clean energy represents for our economy.''
http://swissinnovation.org/newsUS/web/2013/01-130202-a7.html

Government plans nationwide free super Wi-Fi

(The Boston Globe, February 04, 2013)

The federal government wants to create super Wi-Fi networks across the nation, so powerful and broad in reach that consumers could use them to make calls or surf the Internet without paying a cellphone bill. The proposal, from the Federal Communications Commission, has rattled the $178 billion wireless industry, which has launched a fierce lobbying effort to persuade policy makers to reconsider the idea, analysts say. That has been countered by an equally intense campaign from Google, Microsoft, and other tech giants who say a free-for-all Wi-Fi service would spark an explosion of innovation and devices that would benefit most Americans, especially the poor. The airwaves that FCC officials want to hand over to the public would be much more powerful than existing Wi-Fi networks that have become common in households.
http://swissinnovation.org/newsUS/web/2013/01-130204-4b.html

Regulating marijuana in 35 medical treatment centers

(The Boston Globe, February 06, 2013)

Industry watchers say New Mexico, with one of the country's strictest medical marijuana programs, provides a model for Massachusetts, where a ballot measure approved in November calls for up to 35 medical marijuana treatment centers statewide by the end of the year. Massachusetts, like New Mexico, will require these nonprofit treatment centers to oversee every stage — from the growhouses where marijuana is cultivated to the sites where it is sold to patients. The Massachusetts Department of Public Health, which is charged with regulating medical marijuana, is supposed to issue detailed rules by May.
http://swissinnovation.org/newsUS/web/2013/01-130206-15.html

60,000 Massachusetts jobs endangered by federal sequestration

(The Boston Globe, February 15, 2013)

Massachusetts will lose more than 60,000 jobs, much of it in the defense industry, and $127 million in federal research funding, if Congress allows across-the-board spending cuts to go into effect in March, according to a report by Representative Edward Markey of Malden. The automatic cuts, known in Beltway parlance as "sequestration," were scheduled to take place in January under a 2011 budget deal to raise the nation's debt limit, but the crisis was temporarily averted when Congress struck a last-minute New Year's Eve bargain. The two-month delay in cuts were supposed to buy the White House and Congress time to negotiate a broader deal. But so far, no bargain has been struck; and the looming deadline has heightened the possibility that the sequestration will be enacted.
http://swissinnovation.org/newsUS/web/2013/01-130215-a3.html

Scientists and officials warn about NIH cuts

(The Boston Globe, February 19, 2013)

With little more than a week left before across-the-board federal budget cuts could go into effect, Massachusetts politicians joined scientists and the state's top health care administrators to offer a grim prognosis of the impact National Institutes of Health (NIH) spending cuts would have on the Bay State, and Boston in particular. NIH grants fund hundreds of millions in research annually at the Commonwealth's hospitals and colleges. Those research dollars support about 34,000 jobs in Massachusetts, said Dr. Gary Gottlieb, president and chief executive of Partners HealthCare, and about 1,700 could be lost if the automatic cuts slice tens of millions of dollars from state's share of NIH funding for the remaining months of this year.
http://swissinnovation.org/newsUS/web/2013/01-130219-68.html

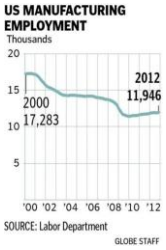
Efforts for energy efficient buildings in Boston

(The Boston Globe, February 22, 2013)

Mayor Thomas M. Menino, seeking to encourage Boston businesses to be more energy conscious, is proposing a new law that would require commercial building owners to report annual energy and water use to the city, which would in turn make it public. The proposal, which needs City Council approval, is already generating opposition from building owners, who say the city wants to shame them into expensive energy upgrades that will raise rents for tenants and hurt the commercial real estate market. Menino's proposal is based on similar laws in New York, Washington, San Francisco, and other cities. The Greater Boston Real Estate Board has commissioned its own study of what has happened in other cities to determine whether such programs actually result in significant energy savings.
http://swissinnovation.org/newsUS/web/2013/01-130222-82.html

US industrial ecosystem stymies innovation

(The Boston Globe, February 22, 2013)



A new report by the Massachusetts Institute of Technology urgently recommends that the nation rebuild its "industrial ecosystem" of manufacturers, suppliers, research, and skilled labor to support multiple industries, not just clusters of companies dedicated to one particular sector. The report said manufacturers with the ability and talent to produce the ideas of entrepreneurs are in increasingly short supply, as US corporations have shifted production offshore and outsourced many other functions, such as research and development, over the last 30 years. The report, compiled by 20 MIT faculty members said that for innovation and the invention and creation of products to occur, start-up companies and manufacturers must operate close by so that they may draw on each other's expertise.
http://swissinnovation.org/newsUS/web/2013/01-130222-00.html

"Six Strikes" Copyright Alert System

(The Boston Globe, February 27, 2013)

Internet users who illegally share music, movies, or television shows online could soon receive warning notices from the nation's five major Internet service providers. The Copyright Alert System, organized by the recording and film industry, is being activated to target consumers using peer-to-peer software. Under the new system, complaints will prompt an Internet service provider to notify a customer whose Internet address has been detected sharing files illegally. A person will be given up to six opportunities to stop before the Internet provider will take more drastic steps, such as temporarily slowing their connection, until they acknowledge they received a notice or review educational materials about copyright law.
http://swissinnovation.org/newsUS/web/2013/01-130227-49.html

2. Education

MOOC edX courses by science superstars

(The Boston Globe, February 01, 2013)

Some scientific superstars will be headlining online classes offered through edX, the nonprofit that aims to transform education by offering classes online. The lineup of free classes offered by MIT this year includes a biology class taught by Eric Lander, a leader in the human genome project, a class focused on poverty from the economist and MacArthur "genius" Esther Duflo, and electricity and magnetism from legendary physics professor Walter Lewin. Furthermore, Michael Sandel, a government professor at Harvard University, will offer his class on Justice, already taken by 15,000 Harvard students, to the whole world. There will be a class on the Greek hero from Gregory Nagy, a leading classicist at Harvard.
http://swissinnovation.org/newsUS/web/2013/02-130201-c0.html

Highest junior student enrollment in a decade

(The Boston Globe, February 06, 2013)

Boston's public school system needs to spend $61 million more to educate the city's children next school year, in part because enrollment is expected to be the highest in nearly a decade, according to a proposed budget presented to the School Committee. The district expects nearly 1,200 more students next school year, mostly in pre-kindergarten and elementary school, as well as special education, pushing enrollment to an estimated 58,271. More children mean more classrooms. Books and blocks must be bought, as well as desks, chairs, computers, and

whiteboards. But, more importantly, more children mean more staff. The district's proposed $934.4 million budget is a 7 percent increase over the current year, according to John McDonough, the school system's chief financial officer.
http://swissinnovation.org/newsUS/web/2013/02-130206-db.html

Disabled athletes at local schools

(The Boston Globe, February 07, 2013)

The Department of Education's new guidelines say schools must make "reasonable accommodations" to allow disabled athletes to compete in sports. And for students who can only compete with more significant accommodations, schools must create a separate athletic opportunity, the department said. Some schools have already created sports teams for disabled athletes. Algonquin Regional High School and seven other school districts created a new track league last year with teams that include students with intellectual disabilities. "I'm truly, truly excited," said Anjali Forber-Pratt, an elite wheelchair racer and Paralympics champion who grew up in Natick. "I think that this is landmark in terms of civil rights for persons with disabilities. It's a powerful statement to have the backing of the government."
http://swissinnovation.org/newsUS/web/2013/02-130207-a9.html

Three Boston donors amongst top 50 of the US

(The Boston Globe, February 11, 2013)

Three Massachusetts philanthropists ranked among the nation's 50 largest donors to charitable organizations in 2012, according to the Chronicle of Philanthropy. Only New York and California had more residents on the list. The three Boston donors tied others on the list for 40th place, giving $30 million each to local universities. Joseph O'Donnell of Boston, founder of the Boston Culinary Group, and his wife Katherine gave $30 million to Harvard University. Venture capitalist Richard D'Amore of Waltham gave $30-million to Northeastern University for its school of business, and Clean Harbors founder Alan McKim, also pledged $30-million to Northeastern University's business school. Warren Buffett, the famous investor, was the largest donor in the nation, at $3.1 billion, followed by Facebook founder Mark Zuckerberg, who gave $499 million.
http://swissinnovation.org/newsUS/web/2013/02-130211-40.html

Harvard Divinity School received $10M donation

(The Boston Globe, February 11, 2013)

Harvard Divinity School has received a $10 million donation from Susan Shallcross Swartz, a landscape painter, and her husband James R. Swartz, founding partner of the venture capital firm Accel Partners. The gift, which Dean David N. Hempton called "an astonishing act of generosity," is one of the largest in the history of the divinity school, whose graduates often become academics, clergy, or nonprofit workers, earning far less than alumni of other Harvard graduate programs. The money will fund a new endowment in Christian studies, underwriting new professorships, fellowships, and programming.
http://swissinnovation.org/newsUS/web/2013/02-130211-93.html

University of Massachusetts has highest state salaries

(The Boston Globe, February 16, 2013)

The University of Massachusetts dominated the list of state employees who made more than $100,000 last year, with 49 of the top 50 spots held by doctors, administrators, and coaches. At $784,468, the top 2012 salary - belonged to Michael F. Collins, who holds dual roles in the university, as chancellor of the medical school and - senior vice president for health sciences at the university. He was also the state's highest paid employee in 2011. For the second year in a row, the number two salary went to Terence R. Flotte, the medical school's dean, who was paid $712,041. Typically, UMass employees, particularly those at the medical school, are heavily represented in the top-earner brackets.
http://swissinnovation.org/newsUS/web/2013/02-130216-fb.html

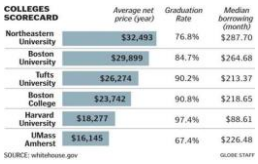
Transgender guidelines for public schools

(The Boston Globe, February 17, 2013)

Public school officials said that they are ready to implement new state guidelines that allow transgender students to use bathrooms and play on sports teams designated for their preferred genders, among other provisions. The state Department of Elementary and Secondary Education released the guidelines following the passage of a Massachusetts law that took effect in July barring discrimination of transgender students in public schools.
http://swissinnovation.org/newsUS/web/2013/02-130217-be.html

Surprising ranking of universities by tuition fees

(The Boston Globe, February 19, 2013)



A college "score card," of the US Department of Education to help families compare the affordability and value of colleges, contains a bit of sticker shock: An average net price of $18,277 a year to attend Harvard University, compared with $32,493 for Northeastern University. The numbers defy common expectations because the score card takes into account scholarships and grants that do not have to be repaid. Subtracting those from the official sticker price provides a more realistic picture of what the school would probably cost a typical student. The data include loan-default rates and graduation percentages, and the average each student borrows. The Education Department is working on a database to show the average earnings of former students.
http://swissinnovation.org/newsUS/web/2013/02-130219-83.html

New Vice President for Harvard's investments

(The Boston Globe, February 19, 2013)

Harvard University, which often faces pressure from students and alumni to shed controversial investments, has agreed to create a senior position at its investment management arm to consider the environmental, social, and corporate governance aspects of its holdings. Harvard Management Co. recently began searching for a vice president for "sustainable investing," a relatively novel position in the world of university endowments. The new executive will consider how the investment unit currently takes into account social and other concerns and suggest improvements, according to the job posting. The person will also serve as Harvard's representative on the issues at campus and public forums. Harvard's endowment was valued at $30.7 billion as of June.
http://swissinnovation.org/newsUS/web/2013/02-130219-81.html

Professors protest against standardized tests

(The Boston Globe, February 20, 2013)

More than 130 Massachusetts professors and researchers urged state education officials to stop relying on standardized test scores to judge school quality, teacher effectiveness, and eligibility for high school graduation. They stated that standardized testing programs, such as the Massachusetts Comprehensive Assessment System, have fostered an "environment of intimidation, fear, anxiety, and stress for both teachers and their students." "As educators and researchers from across the Commonwealth of Massachusetts, we strongly oppose our state's continued overreliance on high-stakes standardized testing to assess student achievement, evaluate teacher effectiveness, and determine school quality," they wrote in the letter to state education officials.
http://swissinnovation.org/newsUS/web/2013/02-130220-f7.html

Harvard campus nap room

(The Boston Globe, February 21, 2013)

At Harvard College, one student has set out to establish a designated nap room where students can catch a few winks and recharge their mental batteries between classes. "Most students operate daily on a sleep deficit, to the detriment of their health and productivity," said Yuqi Hou, a 19-year-old sophomore. "For those getting insufficient sleep at night, naps can provide alertness." Hou started an online petition through the Harvard Undergraduate Council's "We the Crimson" initiative, which is meant to foster direct dialogue between students and school administrators. Each month, the three petitions with the most favorable votes, or "likes," are sent to Dean of Harvard College Evelynn M. Hammonds for review. Hou's petition for the establishment of a nap room made its way to Hammonds' desk.
http://swissinnovation.org/newsUS/web/2013/02-130221-10.html

Financial aid fuels record applications to Harvard

(Harvard, February 22, 2013)

Driven by historic levels of financial aid, the number of applications to Harvard College remained high this year. Applications reached a record 35,022, the third consecutive year with numbers near 35,000. Last year 34,303 applied, and two years ago 34,950 did. "Financial aid continues to be a major factor in students' decisions to apply to Harvard," said William R. Fitzsimmons, dean of admissions and financial aid. "Students and their families have many questions about the affordability of college in challenging financial times. They are reassured when they learn how our financial aid program makes it possible for students from modest and middle-income families to come to Harvard. More than 60% of Harvard students receive need-based aid to attend, and on average their families pay only $11,500 annually.
http://swissinnovation.org/newsUS/web/2013/02-130222-bc.html

3. Life Science

e-ICU for lower-cost community care

(The Boston Globe, February 03, 2013)

Steward Health Care System operates on remotely monitoring patients at several hospitals from an "e-ICU'' outpost in Westwood. Caregivers at the site watch video screens showing patients in hospital ICUs from Methuen to Fall River. Like everything else about for-profit Steward — robotic surgery, fixed-rate insurance contracts, managers working with patients to prevent hospital readmissions — the e-ICU is focused on innovation, efficiency, and finding ways to save money. Steward says it is forging a lower-cost "community care" model, drawing patients from expensive Boston teaching hospitals. Just more than two years after state officials gave Steward control of the six Caritas hospitals — including Boston's St. Elizabeth's Medical Center and Carney Hospital — the new system has lost tens of millions of dollars.
http://swissinnovation.org/newsUS/web/2013/03-130203-61.html

TV viewing influences sperm quality

(The Boston Globe, February 04, 2013)

Watching too much television and exercising too little might be at least partly to blame for a possible decline in the sperm counts of American men, a Harvard School of Public Health study suggests. Researchers assessed sperm quality in 189 college students ages 18 to 22 and found that those who exercised vigorously and often and who watched no television had the highest quality and quantity of sperm compared with those who exercised less and watched more than 20 hours a week of television. Both too much TV and a sedentary lifestyle independently raised a man's likelihood of having fewer sperm, but men who exercised and watched a lot of TV didn't fare as poorly from their excess TV viewing as those who didn't exercise at all.
http://swissinnovation.org/newsUS/web/2013/03-130204-8b.html

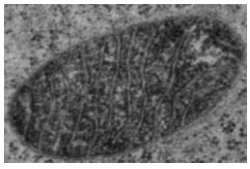
Winning war against 'superbugs'

(Harvard, February 05, 2013)

A team of scientists just won a battle in the war against antibiotic-resistant "superbugs" — and only time will tell whether their feat is akin to a bacterial Battle of Gettysburg that turns the tide toward victory. They won this particular battle by interfering with the metabolism of the bacterial "bugs" — E. coli in this case — and rendering them weaker in the face of existing antibiotics, as reported in Nature Biotechnology. It's the "kick 'em when they're down" style of fighting, and the team from Harvard's Wyss Institute for Biologically Inspired Engineering and Boston University used sophisticated computer modeling and biotechnology as their weapons of choice.
http://swissinnovation.org/newsUS/web/2013/03-130205-b3.html

Mapping the living cell

(MIT, February 05, 2013)



To get a clear picture of what's happening inside a cell, scientists need to know the locations of thousands of proteins and other molecules. MIT chemists have developed a technique that can tag all of the proteins in a particular region of a cell, allowing them to more accurately map those proteins. The new method, developed with researchers from the Broad Institute and Harvard Medical School, combines the strengths of two existing techniques — microscopic imaging and mass spectrometry — to tag proteins in a specific cell location and generate a comprehensive list of all the proteins in that area.
http://swissinnovation.org/newsUS/web/2013/03-130205-82.html

Connection between Vitamin D and type 1 diabetes

(Harvard, February 06, 2013)

Adequate levels of vitamin D during young adulthood may reduce the risk of adult-onset type 1 diabetes by as much as 50 percent, according to researchers at the Harvard School of Public Health. If confirmed in future studies, the findings could lead to a role for vitamin D supplementation in preventing this serious autoimmune disease in adults. In type 1 diabetes (once called juvenile-onset or insulin-dependent diabetes), the body's immune system attacks and permanently disables insulin-making cells in the pancreas. While previous studies

have suggested that vitamin D might play a role in type 1 diabetes, they principally focused on the link between a shortage of the vitamin during pregnancy or childhood and the risk of developing the disease during childhood.
http://swissinnovation.org/newsUS/web/2013/03-130206-f9.html

Technology to help monitor concussions

(Harvard, February 07, 2013)

Doctors routinely track their patients' hand-eye coordination to monitor any neuromuscular deficits, particularly as patient's age or when they are injured — but the tests doctors have been using to track this kind of information may be subjective and qualitative. In the study, 150 healthy people from the Boston area aged 21 to 95 used a stylus to follow a moving target around a circle on a computer tablet. As every person performed this tracing task, proprietary computer methods developed at the Wyss Institute measured their deviations from the circular path, which the researchers then analyzed as a function of age, sex, and handedness. The team is currently conducting a study with athletes in the Boston area to determine the sensitivity of the technology in diagnosing concussions.
http://swissinnovation.org/newsUS/web/2013/03-130207-bf.html

Circuits in bacteria used as environmental sensors

(MIT, February 10, 2013)

MIT engineers have created genetic circuits in bacterial cells that not only perform logic functions, but also remember the results, which are encoded in the cell's DNA and passed on for dozens of generations. Synthetic biologists use interchangeable genetic parts to design circuits that perform a specific function, such as detecting a chemical in the environment. In that type of circuit, the target chemical would generate a specific response, such as production of green fluorescent protein (GFP). The circuits could be used as long-term environmental sensors, efficient controls for biomanufacturing, or to program stem cells to differentiate into other cell types.
http://swissinnovation.org/newsUS/web/2013/03-130210-7e.html

Drawing science by hand

(The Boston Globe, February 11, 2013)

Most people associate science with technical equipment: goggles, lasers, microscopes, or knee-length lab coats. It's an open secret that scientists depend on drawing to get their point across, to receive new ideas from their colleagues, and to clarify their own thinking. It doesn't show up in scientific papers, but it goes into the interior design of new science buildings and is often the most prominent art in a scientist's office. But drawing by hand gets little attention in today's world of PowerPoint lessons and multiple choice tests. Maybe it should be a bigger part of how we think about learning science in the first place.
http://swissinnovation.org/newsUS/web/2013/03-130211-aa.html

New cancer immunotherapy start-up in Cambridge

(The Boston Globe, February 14, 2013)

Boston venture capital firm Third Rock Ventures is set to disclose that it is putting up $47 million to launch a cancer immunotherapy start-up in Cambridge. The company will be called Jounce Therapeutics Inc., a name derived partly from a well-known physics term and partly from a synonym for jolt. It is meant to signal the dramatic change the company and its financial backers expect from their cancer-fighting approach. Rather than targeting tumors directly, Jounce intends to develop drugs that can harness the immune system to seek out and attack cancerous cells. Jounce hopes it's an approach that can be used against many types of cancers.
http://swissinnovation.org/newsUS/web/2013/03-130214-55.html

Rare liver transplantation

(The Boston Globe, February 15, 2013)

Boston Children's Hospital performing an extremely rare ABO incompatible liver transplant, something done in less than 1 percent of all liver transplants performed with organs from deceased donors nationwide since 2007. According to data from the New England Organ Bank, the procedure to save was performed 107 times in the past five years, while there were 36,030 traditional liver transplants in that period. About 72 percent of people who undergo a traditional liver transplant live for at least five years. The success rate for ABO incompatible liver transplants is about 10 to 20 percent lower, doctors said. Because of the blood type difference, the patients take more medications than most organ recipients.
http://swissinnovation.org/newsUS/web/2013/03-130215-60.html

Presidential Citizens Prize for Boston Pediatrician

(The Boston Globe, February 15, 2013)

President Obama has awarded the Presidential Citizens Medal to a 94-year-old Boston doctor, author, and professor for his groundbreaking work in pediatrics. Dr. T. Berry Brazelton developed the Neonatal Behavioral Assessment Scale, used around the world to assess newborns' physical and psychological responsiveness, as well as emotional well-being and individual differences. Among his many achievements, Brazelton is a clinical professor of pediatrics emeritus at Harvard Medical School, and he has founded the Child Development Unit at Children's Hospital and written a number of successful books on child care and parenting. In 1993, he founded the Brazelton Touchpoints Center at Children's, where he still advocates strengths-based and family-centered care.
http://swissinnovation.org/newsUS/web/2013/03-130215-ef.html

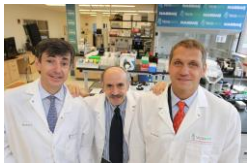
Former MIT neuroscience researcher falsified data

(The Boston Globe, February 16, 2013)

A former neuroscience researcher at the Massachusetts Institute of Technology falsified data in a published study, according to an internal inquiry. The paper, which described a method to visualize interactions between molecules in brain cells, has been retracted. Associate chemistry professor Alice Ting, the senior author of the paper, wrote that her lab discovered that the technique described in the journal Cell in 2010 could not be reproduced, sparking the internal inquiry. "MIT found that the first author, Dr. [Amar] Thyagarajan, falsified or fabricated figures in this publication," stated Claude Canizares, associate provost and vice president for research at MIT. "MIT's investigation also found that Dr. Thyagarajan was solely responsible for the scientific misconduct that resulted in the falsified or fabricated data."
http://swissinnovation.org/newsUS/web/2013/03-130216-33.html

Cambridge start-up targeting cancer cells

(The Boston Globe, February 17, 2013)



Chemotherapy and other traditional cancer therapies do a great job of shrinking most tumors. But some cancer cells manage to escape and seed new tumor growth — a problem that has vexed scientists for years. A Cambridge start-up is going to test a drug that hopefully target those cancer cells that survive the first salvo. The firm, Verastem Inc., works with a small-molecule drug with the clunky name VS-6063, the new Verastem treatment is designed to turn down production of a protein called FAK, which drives the ability of all cells to survive, spread around the body, and replicate.
http://swissinnovation.org/newsUS/web/2013/03-130217-5e.html

Sweat gland as important revolution marker

(The Boston Globe, February 18, 2013)

Harvard researchers are using scientific tools more often deployed to probe major health problems to understand the recent evolution of humans. Scientists used DNA blueprints from living people and experiments in laboratory mice to gain insight into a genetic change that became common among East Asians some 30,000 years ago. They showed that the particular gene variant causes the development of more sweat glands and speculated it could have given people a survival advantage in the humid climate of the region. The sweat gland finding was especially interesting. Sweat, it turns out, is one of the traits that sets people apart from other animals.
http://swissinnovation.org/newsUS/web/2013/03-130218-6d.html

Breakthrough Prize in Life Sciences awarded

(The Boston Globe, February 20, 2013)

The brand-new Breakthrough Prize in Life Sciences, sponsored by a small cadre of technology's elite, were given to 11 scientists. Among those honored and enriched were two scientists who have long taught an introductory biology class together at MIT: Eric S. Lander, founding director of the Broad Institute and a key player in the Human Genome Project, and Robert Weinberg, a cancer biologist from the Whitehead Institute for Biomedical Research, an MIT-affiliated research institution. Lander is about to teach a free online biology class, and is partnering with major teaching organizations to find ways to adapt the material and make it useful in high school classrooms. Weinberg is best known for discovering the first cancer-causing gene in humans.
http://swissinnovation.org/newsUS/web/2013/03-130220-36.html

Another giant pharmaceutical company coming to Kendall Square

(The Boston Globe, February 23, 2013)

One of the last big pharmaceutical companies without an outpost in the life sciences hub is remedying that oversight, with plans to open an office at One Cambridge Center this spring. Johnson & Johnson's Boston Innovation Center will be run by Robert Urban, a one-time biotechnology entrepreneur who was most recently director of the Koch Institute for Integrative Cancer Research at MIT. The Cambridge office will help forge and manage research collaborations with universities and companies working on new medical devices, drugs, diagnostics, and consumer health products. Even before the establishment of the Boston Innovation Center, J&J has worked with Massachusetts Institute of Technology and local companies such as Vertex Pharmaceuticals, Millennium Pharmaceuticals, and Alkermes.
http://swissinnovation.org/newsUS/web/2013/03-130223-6e.html

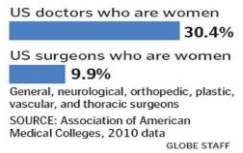
Very active life sciences ecosystem at Kendall Square

(The Boston Globe, February 24, 2013)

Within a mile of the Kendall Square T stop are hundreds of university research labs, start-up companies, venture capital firms, and larger biotech and pharmaceutical entities. All are focused on an elusive goal: bringing to market new drugs and treatments that doctors will eventually prescribe for diseases from cancer to Alzheimer's to obesity. The ecosystem is a four-step process. Researcher discover new substances. Venture capitalist incorporate start-up companies and license the original scientific breakthrough from the university. Startups form partnerships with companies to help fund the drug development. Finally the company either succeeds or fail. If it fails the cycle begins again.
http://swissinnovation.org/newsUS/web/2013/11-130224-de.html

Gender issues in the operating room

(The Boston Globe, February 25, 2013)



The operating room, once an exclusive club for male surgeons, is becoming more welcoming to female surgeons. The number of women entering general surgery has climbed steadily; they now account for more than 35 percent of trainees in the United States. But very few women have moved into leadership roles. And certain surgical specialties long known for their machismo have resisted change. About 5 percent of practicing neurosurgeons and orthopedic surgeons are female. The explicit gender discrimination alleged in a high-profile lawsuit settled for $7 million this month against Beth Israel Deaconess Medical Center and its former chief of surgery is rare in Boston hospitals.
http://swissinnovation.org/newsUS/web/2013/03-130225-69.html

Companion diagnostic company growing in Boston

(The Boston Globe, February 25, 2013)

Leica Biosystems, which quietly moved into the Boston area last fall, is gearing up for significant hiring. Leica's group will make what are called companion diagnostics, tests that help pathologists determine precise characteristics of a patient's cancer. Many drug companies want such companion diagnostics to help predict whether patients will fare well on their drugs. The company has announced a partnership with Galena Biopharma to develop a companion diagnostic for Galena's breast cancer vaccine, NeuVax, for patients with low levels of HER2 protein in their tumors. Leica already has a diagnostic for high levels of HER2 and is now testing to see whether it can also detect low levels of the protein, Reid said.
http://swissinnovation.org/newsUS/web/2013/03-130225-ea.html

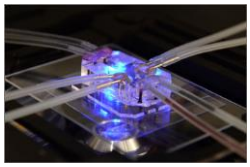
Female protective effect against autism

(The Boston Globe, February 25, 2013)

A team of Boston and European scientists have found evidence for a "female protective effect" in autism that could explain why boys are at far greater risk for the disorder than girls. For years, it's been known that boys are disproportionately affected by autism spectrum disorders, outnumbering girls 4 to 1. What has never been clear is the reason for the gender imbalance: Were males more biologically susceptible, or were females somehow insulated from the disorder and its suite of communication and behavioral problems? Scientists studied thousands of pairs of twins and found evidence that supports the idea that females are protected.
http://swissinnovation.org/newsUS/web/2013/03-130225-fa.html

Lung-on-a-Chip microdevice awarded

(Harvard, February 26, 2013)



Wyss Founding Director Don Ingber, received the NC3Rs 3Rs Prize from the UK's National Center for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) for his innovative Lung-on-a-Chip -- a microdevice lined by human cells that recapitulates complex functions of the living lung. The lung-on-a-chip offers a new in vitro approach to drug screening by mimicking the complicated mechanical and biochemical behaviors of a human lung. It is a small device the size of a memory stick composed of a clear, flexible polymer that contains hollow channels fabricated using computer microchip manufacturing techniques.
http://swissinnovation.org/newsUS/web/2013/03-130226-fc.html

Risky face transplantation

(The Boston Globe, February 27, 2013)

Carmen Blandin Tarleton's face had been burned beyond recognition in a vicious attack by her estranged husband. After doctors performed a partial face transplant on James Maki of Fitchburg in 2009, the first face transplant at the hospital and the second such transplant performed in the United States, Tarleton became eager for the surgery. But because she had so many blood transfusions and skin transplants, her body had produced many antibodies against foreign cells. So the surgeons used a dialysis-like procedure that would filter the antibodies out of her blood as well as giving her drugs to suppress her immune system before transplanting the woman's facial skin, nose, lips, muscles, arteries, and nerves as well as her neck.
http://swissinnovation.org/newsUS/web/2013/03-130227-77.html

Cambridge biotech project moving forward

(The Boston Globe, February 27, 2013)

Commercial real estate developer Forest City Enterprises plans to break ground this fall on a stalled 250,000-square-foot biotechnology office and lab complex at 300 Massachusetts Ave., Cambridge, outside Central Square, after the City Council approved the zoning petition. The building will be occupied by Millennium Pharmaceuticals, the Japanese-owned cancer drug company, which has about 1,200 employees in Massachusetts and is outgrowing its space in a half-dozen other buildings at Forest City's University Park development near the proposed site. The six-story building at 300 Massachusetts Ave. would serve as a "front door" to University Park, which now encompasses about 2.3 million square feet of space behind Massachusetts Avenue.
http://swissinnovation.org/newsUS/web/2013/03-130227-2b.html

Engineers with borders – Harvard Chapter

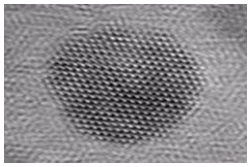
(Harvard, February 28, 2013)

HCEWB, the Harvard chapter of the humanitarian organization Engineers without Borders USA, contributes to environmentally sound and economically sustainable engineering projects all over the world, while promoting global consciousness on campus. Supported in part by a Nectar grant from the Harvard School of Engineering and Applied Sciences (SEAS), the group also develops programming and builds mentoring relationships among engineers and students in the Cambridge area. HCEWB had first traveled to the Dominican Republic in 2007 on the suggestion of the Constanza Medical Mission, a Massachusetts-based Catholic charity that was treating many waterborne illnesses there and seeking an engineering-based solution to the problem. The Harvard group is currently working to improve the contaminated water supply in the village of Tireo Abajo.
http://swissinnovation.org/newsUS/web/2013/03-130228-f6.html

4. Nano / Micro Technology / Material Science

Improved quantum-dot performance

(MIT, February 05, 2013)



New production method could enable everything from more efficient computer displays to enhanced biomedical testing. Quantum dots — tiny particles that emit light in a dazzling array of glowing colors — have the potential for many applications, but have faced a series of hurdles to improved performance. But an MIT team says that it has succeeded in overcoming all these obstacles at once. The new process developed by the MIT team produces

quantum dots with four important qualities: uniform sizes and shapes; bright emissions, producing close to 100 percent emission efficiency; a very narrow peak of emissions, meaning that the colors emitted by the particles can be precisely controlled; and an elimination of a tendency to blink on and off, which limited the usefulness of earlier quantum-dot applications.
http://swissinnovation.org/newsUS/web/2013/04-130205-7a.html

'Invisible' particles for thermoelectric devices

(MIT, February 06, 2013)

Thermoelectric devices can either generate an electric current from a difference in temperature or use electricity to produce heating or cooling without moving parts. In recent years, their efficiency has improved enough to enable limited commercial use, such as in cooling systems built into the seats of automobiles. But more widespread use, such as to harness waste heat from power plants and engines, calls for better materials. Now, a new way of enhancing the efficiency of such devices, developed by researchers at MIT and Rutgers University, could lead to such wider applications. The diagram to the left shows one of these core-shell nanoparticles embedded in a host material. The motion of electrons, as shown by brown lines, is bent in such a way that they appear to be unaffected by the presence of the particle, thus allowing them to pass with little resistance.
http://swissinnovation.org/newsUS/web/2013/04-130206-39.html

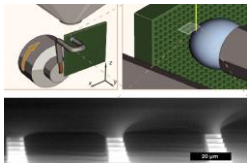
Passivate silicon surfaces at room temperature

(MIT, February 13, 2013)

New room-temperature process could lead to less expensive solar cells and other electronic devices. Silicon, the material of high-tech devices from computer chips to solar cells, requires a surface coating before use in these applications. The coating "passivates" the material, tying up loose atomic bonds to prevent oxidation that would ruin its electrical properties. But this passivation process consumes a lot of heat and energy, making it costly and limiting the kinds of materials that can be added to the devices. Now a team of MIT researchers has found a way to passivate silicon at room temperature, which could be a significant boon to solar-cell production and other silicon-based technologies.
http://swissinnovation.org/newsUS/web/2013/04-130213-79.html

Describing droplets adhesion

(MIT, February 19, 2013)



New technique developed by MIT researchers provides first direct views of how drops and bubbles adhere to surfaces — and how they let go. Understanding exactly how droplets and bubbles stick to surfaces — everything from dew on blades of grass to the water droplets that form on condensing coils after steam drives a turbine in a power plant — is a "100-year-old problem" that has eluded experimental answers, says MIT's Kripa Varanasi. Furthermore, it's a question with implications for everything from how to improve power-plant efficiency to how to reduce fogging on windshields. Now this longstanding problem has finally been licked, Varanasi says. His team achieved the feat using a modified version of a scanning electron microscope in which the dynamic behavior of droplets on surfaces at any angle could be observed in action at high resolution.
http://swissinnovation.org/newsUS/web/2013/04-130219-d7.html

5. Information & Communications Technology

Patient management tools

(The Boston Globe, February 06, 2013)

Twelve-year-old eClinicalWorks has kept a relatively low public profile even as it has emerged as the nation's largest seller of electronic health records software to physicians' offices, outpacing larger and better known rivals such as Epic Systems and GE Healthcare. But the Westborough Company's name recognition may soon increase now that it's poised to enter the consumer health arena. The company announced that it is investing $25 million to develop and market "patient engagement tools" through a health and online wellness

business. The tools will include an app for iPhones and other mobile devices, giving patients access to their medical records, letting them keep track of medicines and test results, and enabling them to e-mail doctors with questions.
http://swissinnovation.org/newsUS/web/2013/05-130206-36.html

Twitter outpost in Cambridge

(The Boston Globe, February 06, 2013)

Social media company Twitter Inc. has purchased Cambridge start-up Bluefin Labs, its second acquisition of a local technology company in just over a week. The two deals give Twitter a local outpost in Cambridge and about 75 employees here. The company, which spun out of the Massachusetts Institute of Technology's Media Lab in 2008, had raised $20.4 million from investors such as Time Warner Investments and SoftBank Capital to analyze comments made on social media sites, including Twitter, about television programming, a growing trend known as "social TV."
http://swissinnovation.org/newsUS/web/2013/05-130206-2c.html

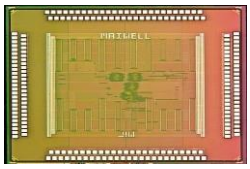
Crowdsourcing solving scientist's problems

(The Boston Globe, February 11, 2013)

Faced with a tough data analysis challenge as he struggled to answer questions about how the immune system works, Dr. Ramy Arnaout of Beth Israel Deaconess Medical Center took an unusual step. He went beyond his circle of Harvard colleagues and beyond the expertise of fellow biologists; he turned to software programmers scattered around the world who had little expertise in the life sciences. The result: A deeply biological problem — analyzing the makeup of genes that produce proteins involved in the immune system's ability to identify microbes — could be rapidly and efficiently answered by a community of more than 400,000 computer programmers who try to solve competitive coding challenges posted on TopCoder, a platform used by big companies such as Google, Intel, and Facebook.
http://swissinnovation.org/newsUS/web/2013/05-130211-bc.html

New microchip to enhance photographs

(MIT, February 19, 2013)



Your smartphone snapshots could be instantly converted into professional-looking photographs with just the touch of a button, thanks to a processor chip developed at MIT. The chip, built by a team at MIT's Microsystems Technology Laboratory, can perform tasks such as creating more realistic or enhanced lighting in a shot without destroying the scene's ambience, in just a fraction of a second. The technology could be integrated with any smartphone, tablet computer or digital camera. The algorithms implemented on the chip are inspired by the computational photography work of professor of computer science and engineering Fredo Durand and Bill Freeman, a professor of computer science and engineering in MIT's Computer Science and Artificial Intelligence Laboratory. With the aid of Taiwanese semiconductor manufacturer TSMC's University Shuttle Program, the researchers have already built a working prototype of the chip.
http://swissinnovation.org/newsUS/web/2013/05-130219-f5.html

New Quad HD TV chip revealed

(MIT, February 20, 2013)

A new video standard enables a fourfold increase in the resolution of TV screens, and a MIT chip was the first to handle it in real time. It took only a few years for high-definition televisions to make the transition from high-priced novelty to ubiquitous commodity — and they now seem to be heading for obsolescence just as quickly. At the Consumer Electronics Show (CES) in January, several manufacturers debuted new ultrahigh-definition, or UHD, models (also known as 4K or Quad HD) with four times the resolution of today's HD TVs. However, UHD requires a new video-coding standard, known as high-efficiency video coding, or HEVC. At the International Solid-State Circuits Conference this week, MIT researchers unveiled their own HEVC chip.
http://swissinnovation.org/newsUS/web/2013/05-130220-57.html

***Minority Report*'s famous gestural interface is becoming a reality**

(The Boston Globe, February 25, 2013)

You do not often find MIT-spawned startups taking root in Los Angeles, but that's what happened with Oblong Industries — in part because founder John Underkoffler had landed gigs as a science adviser to Hollywood, consult-

ing on movies such as “Minority Report” and “Iron Man.” His work on new kinds of gestural interfaces, allowing people to use their hands to manipulate information on a screen, played a central part in “Minority Report” in 2002, and Oblong has been working to commercialize a system similar to the one Tom Cruise used in the film, now called g-speak. The firm is developing Mezzanine, a new kind of collaboration space that lets people share any kind of content from almost any device from any site.
http://swissinnovation.org/newsUS/web/2013/11-130225-2e.html

6. Energy / Environment

Cleantech industry is growing slower

(The Boston Globe, February 03, 2013)

High-flying alternative energy industry has come back to earth, no longer charging full-speed ahead, but rather advancing cautiously. After flooding the sector with money a few years ago, investors have pulled back, targeting money toward less risky companies that have shown their technologies are closer to commercialization. Government is also moving more cautiously. Such shifts are leading companies to accept slower, more deliberate paths to growth. But for clean technology to grow and prosper in the United States, many supporters say, Americans need to become more tolerant of failure in what is still an emerging industry.
http://swissinnovation.org/newsUS/web/2013/06-130203-c7.html

Energy efficient distillation process

(MIT, February 05, 2013)

A system developed at MIT cleans ‘produced water’ from natural gas wells, could lead to improved desalination plants for developing countries. The method is a variation of the standard distillation process, in which salty water is vaporized and then condenses on a cold surface. In the new process, water well below the boiling point is vaporized by direct contact with a carrier gas; the moist air is subsequently bubbled through cooler water where the purified vapor condenses. But the temperature difference between the warm and cool water is much less than in conventional dehumidifiers, and the surface area provided by the small bubbles is much greater than that of a flat condenser surface, leading to a more efficient process an less energy is needed.
http://swissinnovation.org/newsUS/web/2013/06-130205-a1.html

Dramatic reduction of power plant emissions

(The Boston Globe, February 08, 2013)

Massachusetts and eight other Northeast states are slashing by nearly half the amount of carbon dioxide power plants are allowed to emit — a dramatic reduction that is expected to bring in hundreds of millions of dollars to the state for energy efficiency programs while combating global warming. The states said consumers and businesses should, on balance, see a negligible impact on their electricity bills when the new limits go into effect next year. The biggest impact will be reductions in greenhouse gases — and residents will get financial help making their homes weathertight. “It is . . . a strong statement that this region, which comprises nearly 20 percent of the national economy, is serious about being stewards of our environment and addressing climate change,” Governor Deval Patrick said.
http://swissinnovation.org/newsUS/web/2013/06-130208-04.html

Decommissioned nuclear power plants win federal payments

(The Boston Globe, February 08, 2013)

Three decommissioned nuclear plants in New England have been reimbursed nearly $160 million from the federal government in a 14-year-old lawsuit over costs to dispose of spent nuclear fuel that has yet to be removed. Maine Yankee Atomic Power Co., Connecticut Yankee Atomic Power Co., and Yankee Atomic Electric Co. said the federal government decided against appealing a US Court of Appeals ruling upholding claims of $39.7 million to Connecticut Yankee in Haddam, $81.7 million to Maine Yankee in Wiscasset, Maine, and $38.3 million to Yankee Atomic in Rowe, Mass. The plants said they are seeking an additional $247 million in damages to reimburse ratepayers for costs that were intended to go toward disposal of the fuel rods but have since been spent to maintain storage sites.
http://swissinnovation.org/newsUS/web/2013/06-130208-24.html

Sandy amongst costliest hurricanes in the US

(The Boston Globe, February 13, 2013)

Superstorm Sandy was the deadliest hurricane to hit the northeastern United States in 40 years and the second-costliest in the nation's history. The hurricane center attributed 72 US deaths directly to Sandy, from Maryland to New Hampshire. Hurricane Agnes killed 122 people in 1972. The deadliest hurricane in US history hit Galveston, Texas, in 1900 and killed 8,000 to 12,000 people. The report estimated damage caused by Sandy at $50 billion, greater than any US hurricane except Katrina, which in 2005 caused $108 billion in damage, or $128 billion adjusted to 2012 dollars.
http://swissinnovation.org/newsUS/web/2013/06-130213-05.html

MIT and Italy's Eni renew energy partnership

(MIT, February 13, 2013)

Capping what he called a successful five-year partnership between the Italian energy company Eni and the MIT Energy Initiative, Eni CEO Paolo Scaroni this week enthusiastically renewed his company's support of MITEI. After his ceremonial signing of the new agreement with MIT President L. Rafael Reif, Scaroni said, "When I started this whole thing, I did it, as we say in Italian, 'to save my soul.'" When he signed the initial agreement of support for MITEI, Scaroni said, he was largely motivated by the desire to be able to answer questions from environmentalists and others who would ask him, "Why don't you do something for the future of the world?" But over the years of the partnership, Scaroni said, he has come to realize that Eni's support of MITEI is also good for business.
http://swissinnovation.org/newsUS/web/2013/06-130213-66.html

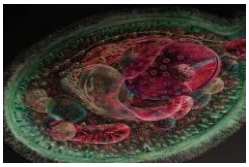
Pilgrim nuclear power plant to resume

(The Boston Globe, February 16, 2013)

The Pilgrim Nuclear Power Station in Plymouth went back in service after being offline since the powerful winter storm, according to the Nuclear Regulatory Commission. The plant, owned by Entergy Corp. of Louisiana, originally went out of service Feb. 8 when the storm knocked out the plant's off-site power lines. Power was restored two days later, but lost again when ice fell on a switchyard line and caused a transformer electrical fault. Pilgrim's shutdown was its third this year. The first two — both in January — were caused by equipment issues at the plant.
http://swissinnovation.org/newsUS/web/2013/06-130216-29.html

Engineered yeast effectively produces biofuel

(MIT, February 17, 2013)



In the search for renewable alternatives to gasoline, heavy alcohols such as isobutanol are promising candidates. Not only do they contain more energy than ethanol, but they are also more compatible with existing gasoline-based infrastructure. For isobutanol to become practical, however, scientists need a way to reliably produce huge quantities of it from renewable sources. MIT chemical engineers and biologists have now devised a way to dramatically boost isobutanol production in yeast, which naturally make it in small amounts. They engineered yeast so that isobutanol synthesis takes place entirely within mitochondria, cell structures that generate energy and also host many biosynthetic pathways. Using this approach, they were able to boost isobutanol production by about 260 percent.
http://swissinnovation.org/newsUS/web/2013/06-130217-65.html

Preparing for the effects of climate change

(The Boston Globe, February 17, 2013)

Many properties in Boston may have to waterproof their buildings – raising critical electrical systems to higher levels or building barriers against storm surges — as sea levels rise from climate change. The city is stepping up a campaign to prepare buildings for rising seas that could significantly flood neighborhoods during storms. The public-private plan comes at the same time a Boston Harbor Association report spotlights high-risk areas, such as Long Wharf and University of Massachusetts Boston, and outlines how property owners can best protect themselves from water. In the next six months, the Boston Conservation Commission will develop new flood-plain maps to take in to account future storm surges atop higher sea levels. A wetlands ordinance will also help guide property owners to prepare for higher sea levels, said Brian Swett, chief of Environment and Energy for the city.
http://swissinnovation.org/newsUS/web/2013/06-130217-c1.html

Climate change affecting national security

(Harvard, February 20, 2013)

Global climate change, extreme weather, and national security are connected, according to a study co-authored by Harvard Professor Michael McElroy (pictured) and D. James Baker, a former administrator of the National Oceanic and Atmospheric Administration. A new report co-authored by Michael McElroy, the Gilbert Butler Professor of Environmental Studies, and D. James Baker, a former administrator of the National Oceanic and Atmospheric Administration, connects global climate change, extreme weather, and national security. During the next decade, the report concludes, climate change could have wide-reaching effects on everything from food, water, and energy supplies to critical infrastructure and economic security.
http://swissinnovation.org/newsUS/web/2013/06-130220-ab.html

Drought spreading and persisting

(The Boston Globe, February 22, 2013)

Climate specialists say the drought affecting more than half of the nation will persist in the Great Plains and West through in the spring and spread over more of California, Texas, and Florida. Specialists from the National Oceanic and Atmospheric Administration's Climate Prediction Center and the National Drought Mitigation Center at the University of Nebraska-Lincoln released their latest predictions. The drought forecast calls for conditions to improve somewhat in eastern Iowa, Wisconsin, Minnesota, Georgia, and South Carolina. But the February-through-May drought forecast predicts conditions will worsen overall this spring. And below-average precipitation is expected this spring in most Western states and the southeastern United States. As a result, the drought is expected to spread from southern California to cover nearly the entire state. All of Arizona, most of Texas, and most of Florida also are expected to be affected.
http://swissinnovation.org/newsUS/web/2013/06-130222-24.html

Offshore wind leases

(The Boston Globe, February 27, 2013)

A year after designating large swaths of federal water south of Martha's Vineyard as ideal for offshore wind development, the government is preparing to hold competitive lease sales for plots inside one of those wind energy areas this summer, outgoing Secretary of the Interior Ken Salazar said. Lease sales inside the expanse covering roughly 257 square miles — and others inside another plot off the coast of Virginia — will be the first of their kind, Salazar told a crowd of about 300 at the opening of the Offshore Wind Power USA conference in Boston. The area off Martha's Vineyard is about 10 times the size of the controversial Cape Wind site off Cape Cod.
http://swissinnovation.org/newsUS/web/2013/06-130227-50.html

7. Engineering / Robotics / Space

Near Earth-like planets

(Harvard, February 07, 2013)

Earth-like planets potentially capable of supporting life may be right in our galactic neighborhood, researchers from the Harvard-Smithsonian Center for Astrophysics (CfA) and the California Institute of Technology said. "The nearest Earth-like planet is probably 13 light-years away; astronomically speaking, that's just a stroll across the park," said Courtney Dressing, a doctoral student in Harvard's Astronomy Department and the lead author of a new analysis of data from the Kepler Space Telescope, which since 2009 has been examining distant stars for signs of orbiting planets. The new analysis focused on a category of stars smaller and dimmer than our own sun — "red dwarfs." Dressing found 95 planets or planet candidates around those stars. Of those, she identified three candidates that are the right size and temperature to be considered Earth-like.
http://swissinnovation.org/newsUS/web/2013/07-130207-5a.html

Harvard will move engineering and science school to Allston campus

(The Boston Globe, February 07, 2013)

Harvard University plans to move a "substantial majority" of its School of Engineering and Applied Sciences from its main campus in Cambridge to its expanding campus in Allston, university President Drew G. Faust announced. The school would relocate to the planned science center complex, which is expected to be completed by 2017, universi-

ty officials said. The building is still planned to be between 500,000 and 600,000 square feet housing a state-of-the-art health and life sciences laboratory, research, classrooms, and areas to foster collaborative innovation.
http://swissinnovation.org/newsUS/web/2013/07-130207-0c.html

Collision with asteroid avoided

(The Boston Globe, February 09, 2013)

On February 15, an office-building-size asteroid sped past the earth faster than a bullet and closer than some communications and GPS satellites. It is the nearest recorded brush with a space rock so large, NASA scientists said. Fortunately, there was no chance of an impact. At its closest, asteroid 2012 DA14 passed 17,000 miles above the earth. However, a million other potentially dangerous — and unknown — city-killing space rocks are out there, and one of them could be on a collision course with earth. Critics say NASA and other space agencies are not doing enough to scan for these threats.
http://swissinnovation.org/newsUS/web/2013/07-130209-ef.html

3200 people work in robotics

(The Boston Globe, February 11, 2013)

The Mass. state has become ground zero for a revolution in robotics that involves companies such as iRobot Corp. in Bedford, best known for the Roomba vacuum cleaner; newcomers like Rethink Robotics in Boston, a maker of manufacturing robots; and universities, such as the Massachusetts Institute of Technology and Worcester Polytechnic Institute, that are at the leading edge of the next generation in robotics. The region has about 100 robotics companies and 35 research and development programs, working on robot projects for the military, law enforcement, hospitals, manufacturing facilities, oceanographers, scientists, and for consumers, according to a report that will be released Tuesday by the Mass Technology Leadership Council, a statewide industry group. The report says that about 3,200 people work in robotics, and annual sales from these companies are approaching $2 billion.
http://swissinnovation.org/newsUS/web/2013/07-130211-83.html

Humans and robots cooperation improved by cross-training

(MIT, February 11, 2013)

Robots are increasingly being used in the manufacturing industry to perform tasks that bring them into closer contact with humans. Most existing research into making robots better team players is based on the concept of interactive reward, in which a human trainer gives a positive or negative response each time a robot performs a task. However, human studies have shown that training can be improved by using cross-training; this is when team members swap roles with each other on given days. MIT researchers found that the period in which human and robot were working at the same time — known as concurrent motion — increased by 71 percent in teams that had taken part in cross-training, compared to the interactive reward teams.
http://swissinnovation.org/newsUS/web/2013/07-130211-60.html

Robots using lateral thinking to compensate for their shortcomings

(MIT, February 25, 2013)

General-purpose household robots would have to be able to manipulate objects of any shape, left in any location but unfortunately today robots don't have anything like the dexterity of the human hand. Students in the Learning and Intelligent Systems Group at MIT will present a pair of papers showing how household robots could use a little lateral thinking to compensate for their physical shortcomings. The first paper describes an algorithm that enables a robot to push an object across a table so that part of it hangs off the edge, where it can be grasped. The second paper shows how a two-armed robot can use one of its graspers to steady an object set in place by the other.
http://swissinnovation.org/newsUS/web/2013/07-130225-f9.html

Couple to cruise around Mars

(The Boston Globe, February 28, 2013)

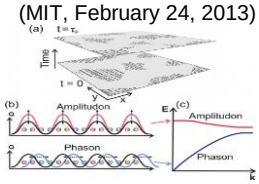
A tycoon announced plans to send a middle-aged couple on a privately built spaceship to slingshot around the red planet and come back home, hopefully with their bodies and marriage in one piece after 501 days of no-escape togetherness in a cramped capsule half the size of an RV. Under the audacious but bare-bones plan, the spacecraft would blast off less than five years from now and pass within 100 miles of the Martian surface. The private, nonprofit project, called Inspiration Mars, will get initial money from NASA engineer-turned-

multimillionaire investment consultant Dennis Tito, the first space tourist. The organizers hope to raise the rest through donations, advertising, and media partnerships.
http://swissinnovation.org/newsUS/web/2013/07-130228-94.html

8. Physics / Chemistry / Math

Better analysis of high-temperature superconductors

(MIT, February 24, 2013)



While the phenomenon of superconductivity has been known for more than a century, the temperature at which it occurs has remained too low for any practical applications. The discovery of "high-temperature" superconductors in the 1980s led to speculation that a surge of new discoveries might quickly lead to room-temperature superconductors. Despite intense research, these materials have remained poorly understood. There is still no agreement on a single theory to account for high-temperature superconductivity. Recently, however, researchers at MIT and elsewhere have found a new way to study fluctuating charge-density waves, which are the basis for one of the leading theories. The researchers say this could open the door to a better understanding of high-temperature superconductivity, and perhaps prompt new discoveries of higher-temperature superconductors.
http://swissinnovation.org/newsUS/web/2013/08-130224-dd.html

Exploring the limits of physics

(The Boston Globe, February 25, 2013)

Inside a cylinder mounted on a rotating table top, Amherst College physicists are trying to detect tiny perturbations within mercury atoms, caused by long-range interactions with particles in the Earth's interior. In a study, the Amherst team and a collaborator at the University of Texas at Austin reported that they had not discovered new physics yet, but had put limits on the energy associated with the force that would be carried by hypothetical particles — which include the existentially evocative "unparticle." The team is homing in on the sensitive measurements it might need to detect new physics; the new results demonstrate that the theoretical force, if it exists, is extraordinarily weak.
http://swissinnovation.org/newsUS/web/2013/08-130225-a6.html

9. Architecture / Design

Mapping a megacity's metabolism

(Harvard, February 06, 2013)

If you wanted to jury-rig your own local version of Google Maps, you might end up with something like the Harvard Graduate School of Design (GSD) team. But GSD professor Rahul Mehrotra and his colleagues and students were going where Google hasn't: into the heart of the Maha Kumbh Mela, India's "ephemeral city," an impressive grid of colorful, tent-lined streets that pops up every 12 years to accommodate the world's largest gathering of Hindu pilgrims. The group mapped the mela, or gathering, as comprehensively as possible, from its informal back roads and infrastructure grid to the flow of people and resources in and out of the Kumbh, which accommodates up to 80 million pilgrims on peak days.
http://swissinnovation.org/newsUS/web/2013/09-130206-53.html

10. Economy, Social Sciences & Humanities

India and Asia joined 40 million years ago

(MIT, February 06, 2013)

The peaks of the Himalayas are a modern remnant of massive tectonic forces that fused India with Asia tens of millions of years ago. Previous estimates have suggested this collision occurred about 50 million years ago, as India, moving northward at a rapid pace, crushed up against Eurasia. The crumple zone between the two plates gave rise to the Himalayas, which today bear geologic traces of both India and Asia. Geologists have

sought to characterize the rocks of the Himalayas in order to retrace one of the planet's most dramatic tectonic collisions. Now researchers at MIT have found that the collision between India and Asia occurred only 40 million years ago — 10 million years later than previously thought.
http://swissinnovation.org/newsUS/web/2013/10-130206-6a.html

Prosperous prospect: free-trade agreement with EU

(The Boston Globe, February 17, 2013)

If President Obama's plans for an ambitious free-trade agreement between the United States and the European Union are realized, the pact could provide outsized benefits for the economies of Massachusetts and New England, which already have strong ties to Europe, local business groups and employers said. The idea of a free-trade partnership with Europe, similar to the North American Free Trade Agreement that opened markets with Canada and Mexico, has been percolating for more than a year, but came into the spotlight last week when Obama proposed talks to lower trade barriers between the United States and Europe in his State of the Union address.
http://swissinnovation.org/newsUS/web/2013/10-130217-92.html

New theory on human language evolution

(MIT, February 21, 2013)

Linguistics and biology researchers propose a new theory on the deep roots of human speech. "The sounds uttered by birds offer in several respects the nearest analogy to language," Charles Darwin wrote in "The Descent of Man" (1871), while contemplating how humans learned to speak. Language, he speculated, might have had its origins in singing, which "might have given rise to words expressive of various complex emotions." Now researchers from MIT, along with a scholar from the University of Tokyo, say that Darwin was on the right path. The balance of evidence, they believe, suggests that human language is a grafting of two communication forms found elsewhere in the animal kingdom: first, the elaborate songs of birds, and second, the more utilitarian, information-bearing types of expression seen in a diversity of other animals.
http://swissinnovation.org/newsUS/web/2013/10-130221-3e.html

11. Start-ups / Technology Transfer / IPR / Patents

Raising investment in startups

(The Boston Globe, February 03, 2013)

In the last five years investors in Massachusetts were mostly focused on social networks, mobile apps and video games. However, recently, they shifted their attention to enterprise software startups. According to venture capitalist Michael Slok, the main reason for it is that "needs are clearly defined and that's where the money is". Moreover in past times, it was difficult to enter big firms as lot of discussions were required and the chief information officer needed to be reached. Then, once sold, the software needed to be implemented along with the existing IT structure. Now things have changed and employees can sample web-based services and pay on a pro rata basis. The new trends in enterprise software include big data analysis, security and incorporation of corporate data in personal mobile devices such as smartphones or tablets.
http://swissinnovation.org/newsUS/web/2013/11-130203-c9.html

Export 'MIT magic' to London

(The Boston Globe, February 06, 2013)

London is arguably one of the most influential city in the world and is looking to foster its startup scene. The result of the government's efforts is called the 'Silicon roundabout' and should turn London into a global technology hub. To achieve their goal of making the Silicon roundabout a global magnet for technology ventures, UK leaders study entrepreneurship at MIT and inspire themselves from the start up dynamic in Cambridge. All this, to try to export the 'MIT magic' to the UK. There are even preliminary discussions about creating a satellite office of the largest incubator of Cambridge in London. Today, the whole area around the 'silicon roundabout' is called Tech City and encompasses a 7-mile section of East London. The government estimates the number of tech companies implemented there to be about 1,300. Notable companies include Google, Amazon, Microsoft or Vodafone.
http://swissinnovation.org/newsUS/web/2013/11-130206-c8.html

Lunch Beat concept in Boston

(The Boston Globe, February 11, 2013)

A new event series is getting underway that will invite business movers and shakers to spend their lunch hours, well, moving and shaking. Lunch Beat, founded in Stockholm in 2010, arrives in Cambridge next month. The concept is simple: Instead of sitting with your coworkers and talking about office politics, you spend one hour dancing to a DJ set. Sandwiches are available. The Lunch Beat Manifesto decrees that everyone must dance. And "You don't talk about your job at Lunch Beat." The first Lunch Beat happens March 6 at the Hack/Reduce shared space in East Cambridge. It sounds like the event will be held every month, and it will take place at a Boston venue on occasion.
http://swissinnovation.org/newsUS/web/2013/11-130211-69.html

Profitable restaurant in suburbia

(The Boston Globe, February 13, 2013)

Brian Lesser and Marcus Palmer joined forces recently to launch another swank dining spot. Their location of choice: Lexington. Welcome to Vine Brook Tavern, a three-month-old restaurant serving pork dumplings, 24 wines by the glass, and Cornish chicken prepared by a Todd English protégé. Chef's tables and tasting menus are part of the ambiance at the spot, located in a renovated building constructed in 1830. Vine Brook Tavern is the latest addition to a growing list of restaurants offering upscale city dining in Boston's suburbs. A crowded urban dining landscape, where space can be scarce and competition fierce, is prompting established stars and up-and-coming restaurateurs to seek fortune beyond the bright lights.
http://swissinnovation.org/newsUS/web/2013/11-130213-ed.html

MassChallenge is going to Israel

(The Boston Globe, February 14, 2013)

MassChallenge Inc., the world's largest start-up accelerator and competition that runs an annual contest for business start-ups, is taking its competition to Israel with the help of New England Patriots owner Robert Kraft and the Hopkinton data storage company EMC Corp., both of which have longstanding ties to that country. The contest will be dubbed MassChallenge Israel and will formally launch in March in Tel Aviv, which already has an active community of technology start-ups. The move to Israel continues a long history of economic cooperation and business connections between that country and Massachusetts companies.
http://swissinnovation.org/newsUS/web/2013/11-130214-73.html

Startup people tend to be young

(The Boston Globe, February 17, 2013)

Age is a matter not often discussed in Boston start-up circles. Fast-growing companies like to think of themselves as meritocracies. But most of the companies around Boston and Cambridge are populated entirely by twentysomethings — and a few "seasoned" folks in their early 30s. So are start-ups the domain of the young? Here are the main observations that make the startup scene young: startups in suburbs are older than in the city, younger candidates are more willing to work long hours, young candidates tend to be more aware of latest technologies, workers in their 20s are malleable, young candidates are willing to work for less.
http://swissinnovation.org/newsUS/web/2013/11-130217-c9.html

Cambridge Innovation Center (CIC) expands

(The Boston Globe, February 18, 2013)

The Cambridge Innovation Center, one of the largest such operations in the country, may expand to St. Louis and Baltimore. After 14 years of helping Kendall Square become a national hot spot for technology companies, the Cambridge Innovation Center is looking to replicate its success in other cities. The Kendall operation is in talks to open two new innovation centers, one in Baltimore and another in St. Louis, by the end of 2013. Since opening in 1999, the Innovation Center has helped launch more than 1,200 companies by providing low-cost shared office spaces, fast Internet service, stocked kitchens, and a communal environment where budding entrepreneurs can mix.
http://swissinnovation.org/newsUS/web/2013/11-130218-01.html

MIT report on Production in Innovation Economy

(MIT, February 22, 2013)

What kinds of industrial production can bring innovation to the American economy? An intensive, long-term study by a group of MIT scholars suggests that a renewed commitment to research and development in manufacturing, sometimes through creative new forms of collaboration, can spur innovation and growth in the United States as a whole. The findings are outlined in the preview of a report issued by a special MIT commission on innovation, called Production in the Innovation Economy (PIE). Among the approaches the report recommends are new forms of collaboration and risk-sharing — often through public-private partnerships or industry-university agreements — that can enable a wide variety of firms and industries to grow.
http://swissinnovation.org/newsUS/web/2013/11-130222-c1.html

MD Idea Lab with focus on IT health care

(The Boston Globe, February 25, 2013)

The University of Massachusetts Boston's Venture Development Center has teamed up with MD Idea Lab to establish a new entrepreneurial resource that resembles a business incubator within an incubator — specifically targeting early-stage firms that are developing information technology products for health care. MD Idea Lab's focus on IT health care products complements UMass Boston's attempts to promote development of more traditional drugs, medical devices, and other clinical products for health care. The goal is to connect promising entrepreneurs with angel investors. MD Idea Lab hopes make money from its equity interest in developing firms, acquired in exchange for the early-stage technology and business support.
http://swissinnovation.org/newsUS/web/2013/11-130225-25.html

Special "Startup Visas" for qualified immigrants

(MIT, February 28, 2013)

For U.S. citizens, the initial challenge of starting a business in America could be scraping together startup funds; for foreign-born entrepreneurs, the challenge is usually staying in the country. Under U.S. immigration policy, foreign nationals face strict visa requirements to get a company up and running, which can chase them back to their homelands or to nations offering easier visas. Because of this, policy reform has become a hot topic, recently gaining traction in Congress with the proposal of Startup Act 3.0, which would facilitate special "startup visas" for qualified immigrants.
http://swissinnovation.org/newsUS/web/2013/11-130228-8f.html

12. General Interest

World's largest airline

(The Boston Globe, February 15, 2013)

US Airways chief executive Doug Parker has landed the big merger he sought for years. Now the soon-to-be CEO of the new American Airlines has to make it work. The two airlines announced an $11 billion merger that will turn American into the world's biggest airline, with some 6,700 daily flights and annual revenue of roughly $40 billion. It's a coup for Parker, who runs the much smaller US Airways and has long pursued a deal like this one with the strong belief that airlines would have a better shot at consistent profits if they bulk up through mergers.
http://swissinnovation.org/newsUS/web/2013/12-130215-96.html

Restoring Cuba-US relations

(The Boston Globe, February 21, 2013)

High-level US diplomats have concluded that Cuba should no longer be designated a state sponsor of terrorism, raising the prospect that Secretary of State John F. Kerry could remove a major obstacle to restoring relations with the Cold War-era foe, government officials said. Cuba no longer actively supports terrorist groups such as the Revolutionary Armed Forces of Colombia, known as the FARC, or former members of Spain's Basque Fatherland and Liberty, also known as the ETA, according to State Department findings.
http://swissinnovation.org/newsUS/web/2013/12-130221-6a.html

13. Calls for Grants / Awards

> **Top Startups Wanted: MassChallenge 2013**
MassChallenge connects entrepreneurs with the resources they need to launch & succeed immediately. It's the world's largest startup accelerator and is looking for the 125 highest-impact startups from any industry for its 2013 program. Benefits include world-class mentorship & training, a driven community of fellow entrepreneurs, $10M+ in in-kind deals and $1M+ in grants with no equity taken. – Deadline: April 3
http://swissinnovation.org/newsUS/web/2013/13-130214-f7.html

> **H-1B visa cap looming**
The H-1B visa is the most common type of visa petition for US employers. To qualify, an employer must demonstrate to the government that a foreign national (non-US Citizen/green card holder) possesses at least a bachelor's degree or a foreign equivalent and that he or she is going to work for a US employer in a job that requires at least a bachelor's degree or a foreign equivalent in a particular field. Every year, the government begins accepting H-1B visa petitions for processing on April 1st. This date is important because the government numerically limits the number of H-1B visas that it issues annually. Last year, the H-1B visa cap was reached on June 12, 2012 and we expect that the cap will be reached even sooner.
http://swissinnovation.org/newsUS/web/2013/13-130130-60.html

> **SNSF Project Funding**
The Swiss National Science Foundation (SNSF) accepts applications for project funding on April 1 and October 1 each year. Applications must be submitted directly by researchers.
http://www.snf.ch/E/funding/projects/Pages/default.aspx

> **New England Venture Summit**
Call for Top Innovators. The New England Venture Summit is an ideal venue to connect emerging growth companies with active Venture Capitalists, Angel Investors, Corporate VCs and Investment Firms. It provides an unparalleled opportunity for startups to meet, network and showcase their innovative investment opportunities to a leading group of investors.
http://www.youngstartup.com/newengland2012/overview.php

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