Science-USA (Boston+), October 2012

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swissnex Boston is proud to welcome you to the monthly newsletter *Science-USA (Boston+)*. Continuing the success of the Science-Asia newsletter, 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 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: Adding a '3D print' button to animation software

(Moritz Baecher, Harvard University, October, 2012)

Articulated deformable characters are widespread in computer animation. Unfortunately, we lack methods for their automated fabrication using modern additive manufacturing technologies. Moritz Baecher, and his colleagues propose a method that translates video game characters -- or any other three-dimensional animation -- into fully articulated action figures, with the help of a 3D printer. – From 2008-2013, Moritz Baecher is a PhD student in the Graphics, Vision and Interaction Group at the School of Engineering and Applied Sciences at Harvard University. He has a Harvard Fellowship and will receive a NSF grant.
http://www.baecher.info/fab_char_sig12.html

Startup: LiberoVision

(Stephan Würmlin Stadler, LiberoVision, October, 2012)

LiberoVision, a 2006 spin-off of ETH Zurich is the global leader for 3D virtual sports enhancements. Based on existing television images only, LiberoVision generates the perfect perspective for analyzing interesting or controversial scenes. The vision is to provide sports fans with unlimited insights into sport games. LiberoVision's Emmy nominated technology is available for 13 sports, including soccer, football, basketball, ice hockey, baseball, and tennis. Broadcasters around the world are using LiberoVision to enhance their sport programs and to breakdown key plays for the sports fans. LiberoVision has become the de-facto standard for sports analysis in the US with clients like ESPN, Fox Sports, NBC, NFL Network, MLB Network, or Univision. By leveraging swissnex Boston right in the beginning, LiberoVision entered the US market already in 2008 with ESPN being its first international client. In 2010, the company was acquired by Vizrt, the global leader in real-time 3D graphics for the broadcast industry and media houses.
www.liberovision.com

swissnex Boston Events

Ambassador visits swissnex Boston

(swissnex Boston, September 07-10, 2012)

Ambassador François Barras from the Consulate General in New York City spent four days in the Boston area exploring the active innovation economy and meeting with major players in the Boston/Cambridge area. swissnex Boston arranged various meetings for Ambassador Barras, who was accompanied by Dr. Felix Moesner, Consul/swissnex Director, and Andreas Rufer, Deputy Consul. The meetings included a courtesy visit to Dr. Joseph Aoun, President of Northeastern University and Christian Klee, CFO of Novartis Institute for Biomedical Research. Ambassador Barras also attended the Swiss Society of Boston's Traditional Raclette event over the weekend.
http://www.yourswissnexboston.org/?p=1852

Paul Klee exhibition at Boston College

(swissnex Boston, September 07, 2012)

In partnership with Swiss International Airlines and swissnex Boston, Boston College's McMullen Museum is hosting a four month exhibit featuring Swiss artist Paul Klee. To celebrate the opening of this 30-piece exhibition, Boston College invited Museum patrons and the college's trustees to an opening gala. The entire swissnex Boston team, along with special guest Ambassador Barras, attended the event. At the event, Ambassador Barras opened with a speech on Switzerland's cultural identity, highlighting Klee's importance to the country's art history.
http://www.yourswissnexboston.org/?p=1726

Back to School

(swissnex Boston, September 27, 2012)

Swissnex Boston welcomed all new students to a networking reception to mark the official start of the Fall 2012 semester. Guest mingled over traditional Swiss cuisine from the swissbäkers while getting to know the swissnex team. Also, local Swiss student and alumni organizations, SwissLink Boston, the Harvard Swiss Society, and the ETH Alumni New England Chapter presented their initiatives. The event was a huge success and brought many new faces to the consulate! We are very excited to keep creating new connections and working with our new community members in the future!
http://bit.ly/QXMDNF

Interpreters in Conflict Zones: An expert roundtable

(swissnex Boston, October 04, 2012)

Swissnex Boston invited Professor Barbara Moser-Mercer, Director of the Department of Interpretation and Translation at University of Geneva to speak about her project InZone. InZone is the Centre for Interpreting in Conflict Zones. Conflict and natural disasters know no linguistic boundaries. Delivering emergency and humanitarian aid across language barriers is a major challenge. Thanks to this Roundtable Discussion some important connections between Prof. Moser-Mercer, representing the University of Geneva, and Cambridge based institutions like Harvard School of Public Health and the Program on Humanitarian Policy and Conflict Research could be established. A follow-up event is foreseen in spring of next year.
http://bit.ly/XuLM92

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

Nobel Prize 2012 – Five Laureates linked to East Coast

(Nobelprize.org, October 08-15, 2012)

The Nobel Prize 2012 Laureates were chosen and announced from October 8 to 15. Five out of the ten laureates have studied or are currently doing research in New England and New York. Serge Haroche and *David J. Wineland*, who received his PhD at Harvard University, won the Prize in Physics for their ground-breaking experimental methods that enables measuring and manipulation of individual quantum systems. The Prize in Chemistry went to *Robert J. Lefkowitz*, and *Brian K. Koblika* for their studies of G-protein coupled receptors. Koblika was working at the Howard Hughes Medical Institute in Maryland. Robert J. Lefkowitz studied at Columbia University and Brian K. Koblika studied at Yale University of Medicine.The Nobel Prize winners in Economic Science are *Alvin Roth* and *Lloyd S. Shapley* for the theory of stable allocations and the practice of market design. Alvin Roth is a Professor of Economics and Business at Harvard University and Lloyd S. Shapley studied at Harvard University.
http://www.nobelprize.org/nobel_prizes/lists/year/

1. Policy

New website for Massachusetts' innovation economy news

(Boston.com, September 11, 2012)

Boston.com launched a new website that aims to be a one-stop destination for news, information, and resources related to Massachusetts' innovation economy. The site covers start-ups, the venture community, and pioneers in sectors ranging from medicine to technology, through local reporting, video series, and a curated feed of news and ideas on innovation and entrepreneurship from around the Web. One important feature of the Hive is contributions from local entrepreneurs, venture capitalists, media outlets on the web and social media. Massachusetts appears to be an ideal market for Hive as it is one of the most intensive research and development economies in the world.
http://bo.st/QEiK5U

Massachusetts talents pool attracts companies

(Boston Globe, September 23, 2012)

The Boston area is one of the best places to set up a technology company because of many early-career engineering graduates.GE Measurement and Control Solutions is a $5 billion energy technology unit of General Electric Co. based in Billerica, Massachusetts. The headquarters was Nevada, until about a year ago when Brain Palmer, chief executive, relocated it to Billerica. Brain Palmer said that the reason for the relocation was that people like living here and want to come work here, this gives them the ability to attract some terrific talents.
http://b.globe.com/PZ2cT5

2. Education

Harvard students get dispended for cheating

(Boston Globe, September 01, 2012)

Dozens of Harvard students, about 125 of them are suspected of cheating on the course's final exam. In May, a teaching fellow noticed suspicious similarities among many of the test answers and notified the professor. It was a take-home exams, completely open book, open note, open Internet etc., accounting for 25 percent each of students' ultimate letter grades. Some students admit to sharing ideas and source material during the time they were allotted to finish the exam.The 125 or so students scheduled to appear before the Administrative Board in the next few weeks. Penalties could range from mild admonitions to yearlong suspensions.
http://b.globe.com/RlPE9I

Healthy eating programs for students

(Boston Globe, September 05, 2012)

Many universities have instituted healthy eating programs in recent years. Then there are students who simply don't know how to handle the abundance of food choices, according to nutrition specialists. The University of Massachusetts is testing a new salad bar intended to show students which ingredients make the healthiest meal. Suffolk University dining halls will offer plastic MyPlates proportionately divided so students can see how much of each food group they should be eating. Boston College is launching a student health-coach pro-

gram, to train students about nutrition so they can educate and collaborate with dorms and campus groups. Those decisions are paramount when 78 million adults nationwide are classified as obese and have a Body Mass Index greater than 30.
http://b.globe.com/SitS9O

Alumni sponsored $3 million to high school for travel experiences

(Boston Globe, September 10, 2012)

Hyde is 88, and his lifelong quest has been to visit every independent country in the world, as defined by the United Nations. He is so committed to the transformative experience of travel that he just made a $3 million gift to his alma mater, Boston College High School, to ensure that students have world travel experience, too.
http://bo.st/S9hRgC

$60m record donation by Alumni to Northeastern University

(Boston Globe, September 12, 2012)

Two Northeastern University dropouts who went on to earn their degrees after encouragement from a mentoring professor are teaming up to donate $60 million to the university, a record gift aimed at shaping the next generation of entrepreneurs and innovators. For D'Amore and McKim, the joint donation, $30 million each, supports a school they say changed their lives and a faculty that helped propel them and many others to success. The two said they hope their donation inspires others who have been helped by Northeastern to give back to the school. The donation is a strong show of support for Northeastern's mission and growth, school officials said.
http://bo.st/PMy1jy

Too high college tuition and fees

(Boston Globe, September 12, 2012)

The price of a college education has been skyrocketing in the United States. Over the past 3½ decades, the consumer price index has climbed around 3.8 percent per year; over the same period, college tuition and fees have been soaring at an annual rate of 7.45 percent. Outstanding student-loan debt in the United States now stands at more than $1 trillion, a number greater than the total credit-card debt Americans owe. Potential students are becoming aware of just how bad student debt can be. That is why they are choosing military service, community college, or vocational training over a traditional university education. Inexpensive web-based learning programs, such as EdX, the online school founded by Harvard and MIT, are drawing lively interest.
http://bit.ly/QJ4fOi

Boston College overcame obstacles en route to 150th anniversary

(Boston Globe September 15, 2012)

McElroy, pastor of St. Mary's Church in the North End, faced fierce anti-Catholic sentiment. But he persisted, and in 1863 obtained a charter for a new school in the South End, he named the school Boston College. From those humble beginnings, the college has grown to rank among the nation's leading universities, surviving two wartime enrollment crises and a near-bankruptcy along the way. BC students will be asked to perform 150 minutes of volunteer community service over the period, and athletes will wear a sesquicentennial logo on their uniforms this season. When BC finally opened, demand was light. By the end of the century the college had outgrown its campus in South End and needed to move. The first building opened in 1913, ushering in BC's modern era. During the first and second world war, the enrollments for BC dropped to a sixth of the usual. In 1973, BC had suffered five years of major deficits and was on the brink of bankruptcy, O'Connor's history noted. Last year, more than 34,000 students applied to be undergraduates. Leahy said BC will seek to build on its strengths and hopes to increase fundraising to broaden its ambitions.
http://b.globe.com/Pt4XtJ

Most students not proficient in writing

(Boston Globe, September 15, 2012)

Just a quarter of eighth and 12th grade students in the United States have solid writing skills, even when allowed to use spell-check and other computer word-processing tools, according to results of a national exam. Students in both grades who used the thesaurus and the backspace key more frequently had higher scores than those who used them less often. Students in the 12th grade who had to write four or five pages a week for English homework also had higher scores. The results at both grade levels showed a continued achievement gap between white, black, Hispanic, and Asian students. There was also a gender gap, with girls scoring 20 points higher on average than boys in the eighth grade and 14 points higher in 12th grade. Those who qualified for free and reduced price lunch, a key indicator of poverty, also had lower scores than those who did not; there was a 27 point difference between the two at the eighth grade.
http://b.globe.com/PFp23o

Berklee College of Music launches master program in Spain

(Boston Globe, September 17, 2012)

Berklee College of Music launched its first master's degree program in sunny Spain. Berklee master's students will perform, compose and study music management in Valencia's landmark Palau de les Arts Reina Sofia, a ceramic-clad opera house built by the Gaudí-inspired Spanish architect Santiago Calatrava. Berklee had received dozens of offers from around the world to establish a campus abroad, but it chose Spain because of its unique music history and lifestyle, said Guillermo Cisneros, executive director of Berklee Valencia. The college has also recruited faculty and visiting artists from around the world and many of the musicians hail from Spain itself.
http://bo.st/SoYi3z

Boston University set for $1 billion in fund-raising

(Boston Globe, September 22, 2012)

Boston University is launching the public phase of its first full-fledged fund-raising campaign, a billion-dollar effort. Fund-raising during the past year did not dip. The public push is well timed. It follows seven years of financial and academic improvements at the school and two years of a "quiet phase" of fund-raising that has already raked in $420 million. The school received gifts from 30,031 alumni, 4,678 more than in the previous year. That is a change for a school that, until recently, did not have especially engaged alumni as a whole and had never embarked on a major fund-raising effort.
http://b.globe.com/OL3TXd

New MIT President L. Rafael Reif tells of vision for future

(Boston Globe, September 22, 2012)

MIT faculty, staff, and students officially welcomed L. Rafael Reif as the school's 17th president, and he laid out a vision that further embraces online education, bolsters investment in research, and makes education more accessible. The Massachusetts Institute of Technology, he said, must lead the way in developing new strategies to offer students an affordable and effective education both online and on campus. Also he wants to help the school continue its basic research by securing funding; foster innovation through interdisciplinary projects; expand the school's global reach with outside collaborations; and continue to support diversity.
http://b.globe.com/S3HkxY

Science board concerned over state funding for UMass

(Boston Globe, September 26, 2012)

State funding per student at the University of Massachusetts, the state's major public research university, fell by an inflation-adjusted 27 percent between 2002 and 2010. This trend, if it continues or if other sources of support are not identified, threatens their continued capacity to attract the best talent, to provide quality education and training for the next generation of scientists and engineers, and to compete with their private counterparts, and is likely to result in an ongoing increase in tuition and fees.
http://bo.st/T9zbYx

Real-World career program for UMass Students

(Boston Globe, September 27, 2012)

A program created by State Street and the University of Massachusetts provides part-time jobs for students with an interest in business and grooms the next generation of skilled workers for one of Massachusetts' largest employers. The aim of the new program is to "connect students with real-world experiences to get them ready for the job market," said Alison Quirk, State Street's chief human resources executive. The work entails entering information on trades that State Street, one of the world's largest providers of administrative services to the financial industry, processes for its big institutional clients. The students are not making investment decisions for State Street's clients, but rather handling the transactions initiated by an investment professional.
http://b.globe.com/OWO7bC

Less NIH funding

(Boston Globe, October 03, 2012)

National Institutes of Health (NIH) spending will be trimmed by 8.2 percent, or about $2.5 billion annually for Boston-area teaching hospitals and universities, according to the Office of Management and Budget projections. If that happens, hundreds of jobs and scores of grant proposals at Massachusetts labs could be lost. The reductions would be felt most acutely in the labs of Harvard Medical and its 16 affiliated hospitals. Harvard Medical's Chin said NIH cuts could disproportionately affect junior faculty, who historically have been counted on to develop new research approaches and innovations for curing diseases.
http://b.globe.com/So4U8H

Popular online courses not for everyone

(Boston Globe, October 07, 2012)

Online learning seems perfect for adult learners that are working and have families, but as colleges and universities offer more courses over the Internet, many educators say prospective students should consider carefully before enrolling in such programs. They must understand technology, working independently and manage time efficiently. Other factors that influence online success have nothing to do with technology. If you tend to procrastinate, for example, online courses may not be for you. Since online students make their own class schedules, and are largely free from the structure of regularly scheduled classes, coursework and reading can easily pile up until there's too much to manage.
http://b.globe.com/VPZ8vF

Expensive higher education pays off in the long run

(Boston Globe, October 07, 2012)

Higher education is expensive, challenging, and time consuming, but ultimately it's an investment that pays off in today's knowledge-based economy. A college graduate will earn an average of $2.3 million over the course of a working life, $1 million more than the lifetime earnings of someone with just a high school diploma. College graduates are also more likely to stay employed. In 2011, the unemployment rate nationally for those with at least a bachelor's degree was 5.3 percent, well below the overall US rate of 9.1 percent. Unemployment among those with just a high school diploma was 12.5 percent. The jobless rate for high school dropouts was nearly 19 percent. But, labor specialists stress, not all college degrees are created equal when it comes to earning power. The median pay for those holding liberal arts degrees is about $44,000 a year, compared with the median pay for engineering-degree holders of about $75,000, according to the Georgetown data.
http://b.globe.com/Q4nm1j

Harvard launches free online courses worldwide

(Boston Globe, October 15, 2012)

Harvard and the Massachusetts Institute of Technology established edX, a nonprofit organization, in the spring, and the University of California Berkeley joined the effort over the summer. Students taking the online courses hail from around the world, but Agarwal said most of those in the spring course were in the United States, India, Britain, and Colombia. Students can take as many courses as they wish through edX, and when they demonstrate mastery of a course they can receive a certificate of completion. The university's provost, Alan Garber, said Friday that the free courses are part of an effort to educate people worldwide and that the effort will help improve education on Harvard's own campus.
http://b.globe.com/R6zD6g

Students of smaller colleges have larger debts

(Boston Globe, October 19, 2012)

Students enrolled in small private liberal arts colleges in Massachusetts tend to graduate with significantly more loan debt than their counterparts at larger universities, according to a new nationwide study. Officials at the smaller private colleges say several factors are causing their students to take on more debt. They also said smaller colleges cannot compete with the billions of dollars in endowments at large institutions. The conservatory's endowment, at its maximum, was about $115 million, while Wheelock's is around $45 million. Tougher economic times mean that more students with greater financial needs are enrolling in college, forcing families to cover the gap between student aid, which includes grants and work-study opportunities, with loans.
http://b.globe.com/RKb7qy

New proposal for fairer Boston school assignments

(Boston Globe, October 28, 2012)

Long after Boston's period of busing students, the school assignment system continues to be unfair, with many students attending schools that are lackluster or failing, typically located in impoverished areas, while others go to better ones. A new proposal presented by a MIT doctoral student was essentially pushed to front-runner status by an advisory committee. It showed the greatest potential of providing equitable access to the city's limited number of quality schools, as the panel seeks to create a student-assignment system that allows more students to attend schools closer to their homes. A computerized system would simply generate a choice of at least four schools near a family's home. If there are no quality schools nearby, the computerized system would then add one or more opportunities for students to seek seats at higher-quality schools further away.
http://bitly.com/Ya4MZM

3. Life Science

In search of genetic markers in fruits and vegetables

(Boston Globe, September 02, 2012)

The biggest vegetable seed producer Monsanto is accelerating its push to identify thousands of genetic markers in fruits and vegetables as it brings the tools of biotechnology to conventional breeding. This should allow them to develop new varieties in two to four years instead of 10 years. Further using genetic markers to guide breeding decisions will improve the appeal and nutrition of tomatoes and 20 other fruits and vegetables, helping people eat healthier. The company plans to identify more vegetable markers this year than in the past 20 years combined. Syngenta, the second-biggest vegetable seed producer, and other companies are also identifying the genetic markers to help with vegetable breeding. Syngenta identified already more than 250,000 genetic markers.
http://bo.st/RlQ9R1

"Junk"-DNA controls genes

(The New York Times, September 05, 2012)

So called "junk" DNA – parts of the DNA that are not actual genes containing instructions for proteins — were discovered a complex system that controls genes. At least 80 percent of this DNA is active and needed. They determine, for instance, whether a cell becomes a liver cell or a neuron. "It's Google Maps," said Eric Lander, president of the Broad Institute, a joint research endeavor of Harvard and the Massachusetts Institute of Technology. The findings, which are the fruit of an immense federal project involving 440 scientists from 32 laboratories around the world, will have immediate applications for understanding how alterations in the non-gene parts of DNA contribute to human diseases, which may in turn lead to new drugs.
http://nyti.ms/OpQxLt

Rare autism form may improve with diet change

(Washington Post, September 07, 2012)

A rare form of autism tied to seizures and mental retardation may be treatable with a simple diet change or supplement, according to a study that suggests similar approaches might work for other forms of the disorder. Researchers identified gene mutations present in two families with the unusual autism and found the mutations caused lower levels of certain amino acids in their blood. In an experiment described Thursday in the journal Science, mice bred with the same gene mutations that were given a supplement of branched chain amino acids, or BCAAs, had fewer seizures and improved autism symptoms.
http://b.globe.com/Uo9you

Mammograms may raise cancer risk for some women with gene mutations

(Boston Globe September 07, 2012)

Mammograms aimed at finding breast cancer might actually raise the chances of developing it in young women whose genes put them at higher risk for the disease, a study by leading European cancer agencies suggests. "This will raise questions and caution flags about how we treat women with [gene] mutations", said Dr. Len Lichtenfeld, deputy chief medical officer of the American Cancer Society. He and the society had no role in the research. Some studies have suggested women with the genetic mutations could be more sensitive to radiation because the genes are involved in fixing DNA problems. If those genes are damaged by radiation, they may not be able to repair DNA properly, raising the cancer risk. Researchers found women with a history of chest radiation in their 20s had a 43 percent increased relative risk of breast cancer compared with women who had no chest radiation at that age. Any exposure before age 20 seemed to raise the risk by 62 percent. Radiation after age 30 did not seem to affect breast cancer risk
http://b.globe.com/RRezP0

Genetic study stirs hope for lung cancer patients

(Boston Globe, September 10, 2012)

A study from the Cancer Genome Atlas, a large project by the National Institutes of Health to examine genetic abnormalities in cancer found that more than 60 percent of the tumors of squamous cell lung cancer had alterations in genes used to make protein and lipid kinases, enzymes for which many drugs are already available or are being tested in other cancers. The work became feasible only in the past few years because of enormous advances in DNA sequencing that allow researchers to scan the whole DNA in a cell. Lead author of the paper with more than 300 authors is Matthew Meyerson of the Dana-Farber Cancer Institute in Boston.
http://b.globe.com/TzYrHr

Human stem cells to improve hearing

(USA today News, September 12, 2012)

Scientists have improved hearing in deaf animals by using human embryonic stem cells, an encouraging step for someday treating people with certain hearing disorders. To make the gerbils deaf in one ear, scientists killed nerve cells that transmit information from the ear to the brain. The stem cells were used to make immature nerve cells. The rodents' hearing ability had improved by an average of 46%. The experiment involved an uncommon form of deafness, one that affects fewer than 1% to perhaps 15% of hearing-impaired people. Scientists hope the approach can be expanded to help with more common forms of deafness.
http://usat.ly/PsdMY2

Scientist found gene for tabby pattern in cats

(NYDailyNews, September 20, 2012)

Scientists say they've found the gene that sets the common tabby pattern — stripes or blotches in cats. It's one of several genes that collaborate to create the distinctive design of a cat's coat, and it's the first of the pattern genes to be identified. If a mutation turns the gene off, the cat ends up with the blotchy "classic" pattern, researchers reported in the journal Science. Some mysteries remain, like just what genetic machinery gives a tabby spots.
http://bit.ly/OYcFRu

Early social isolation can lead to long-lasting effects

(Boston Globe, September 21, 2012)

Scientists from a variety of disciplines are trying to understand the connections among early social experience, biology, and developmental problems that lead to long-lasting dysfunction. Researchers at Boston Children's Hospital reported that mice raised in isolation not only behave differently, they have thinner insulation around brain cells in a key region of the brain. Neuroscientists have found that there is a formative "critical period" early in life when the brain — including the infrastructure for language and vision — is being molded by experience, or by deprivation. The hope is that knowledge of what happens at the cellular and genetic level might help shape government child protection policies and social programs and point to drugs that could reverse the damage.
http://bo.st/SKXsig

Sugary drinks boots a person's appetite for sweet

(Boston Globe, September 21, 2012)

A study published in New England Journal of Medicine, showed that switching from high-calorie sweetened beverages to noncaloric drinks led to less weight gain among both obese and normal-weight children. And in adults who are genetically predisposed to obesity, avoiding sugary drinks appears to virtually negate the effects of obesity genes, according to a Harvard School of Public Health study. "Sugary drinks may exaggerate the genetic effects of obesity by boosting a person's appetite for sweets," said study coauthor Dr. Lu Qi, assistant professor of nutrition at the School of Public Health. The study, though, did not measure whether cutting back on high-calorie sodas could reverse obesity in adults who already are overweight. That's why public health officials have largely turned their efforts toward preventing weight problems in children by targeting calorie-dense junk foods such as soda, chips, and fat-filled sweets.
http://b.globe.com/RKOMxJ

Study divides breast cancer into four distinct types

(New York Times, September 23, 2012)

A new study, part of the federal project, the Cancer Genome Atlas, fundamentally reshaped the scientific understanding of breast cancer. Researchers have identified four genetically distinct types of the cancer. And within those types, they found hallmark genetic changes that are driving many cancers. The investigators identified at least 40 genetic alterations that might be attacked by drugs. Many of them are already being developed for other types of cancer that have the same mutations.
http://nyti.ms/PcZ04M

Study stirs hope on aging disease progeria

(Boston Globe, September 24, 2012)

Boston Children's Hospital found evidence that an experimental cancer drug is possible to affect the course of a rare, fatal disease, progeria, that causes children to age prematurely and die before reaching adulthood. The results were modest; children experiences more than a 50 percent increase in their rate of weight gain, and the scientists observed unanticipated improvements in a measure of cardiovascular health. They were unable to determine if the drug, called lonafarnib, will help the children live longer.
http://b.globe.com/PWV4FU

Personalized cancer treatment

(Boston Globe, September 27, 2012)

A patient with a serious recurrent respiratory papillomatosis (RRP) case was the first to be tested with a new discovery. The discovery allows doctors to grow ‘‘mini tumors’’ from each patient’s cancer in a lab dish, then test various drugs on them to see which works best. It takes only a few cells from a biopsy and less than two weeks to do, with materials and methods common in most hospitals. The new technique may reveal in advance whether a person would be helped by a specific chemotherapy, without risking side effects and lost time if the drug doesn’t work.
http://b.globe.com/UITng2

Quicker analysis of DNA in newborns

(New York Times, October 04, 2012)

Doctors at Children’s Mercy Hospital in Kansas City, Mo., tried to keep a baby alive with seizures. They suspected a genetic disorder, and as it happened, the hospital had just begun a study of a new technique for quickly analyzing the DNA of newborns, zeroing in on mutations that can cause disease. This new method, published in the magazine Science Translational Medicine, is a proof of concept — a demonstration in four babies that it is possible to quickly scan a baby’s entire DNA and pinpoint a disease-causing mutation in a couple of days instead of the more typical weeks or months. The method is expensive, though, costing about $13,500. It is not yet covered by insurance.
http://b.globe.com/T3J4lf

Life after a two hands transplant

(Boston Globe, October 05, 2012)

Richard Mangino now tosses a football, swims a crawl in his pool and mows the lawn with his two new hands and forearms that he received in a 12 hour transplant operation a year ago. Dr. Bohdan Pomahac, leader of Mangino’s transplant team at Brigham and Women’s Hospital, said his patient is “doing -remarkably well and better than expected’’ at enjoying his hands and using them for every-day activities. The muscles in Mangino’s new hands have developed more slowly than predicted, the surgeon said it may be taking longer than average for the nerves that control the muscles to regenerate because Mangino is 66, making him one of the oldest hand transplant recipients.
http://b.globe.com/UkzYHy

First hand transplant at Massachusetts General Hospital

(Boston Globe, October 09, 2012)

Joe Kinan, 43, received a new left hand in a transplant operation that began on Sunday night and lasted into Monday, Mass. General officials said. Last fall, Mass. General announced that it was launching a hand transplant program, with the goal of eventually developing a way to replace limbs without subjecting patients to a lifetime of dangerous antirejection drugs. Kinan’s hand transplant surgery was performed by a surgical team led by Dr. Curtis L. Cetrulo Jr., of the hospital’s Division of Plastic and Reconstructive Surgery.
http://b.globe.com/Tbs7JH

New drugs could slow down Alzheimer

(Boston Globe, October 09, 2012)

The number of 5 million Americans that have Alzheimer is expected to nearly triple until 2050 as baby boomers age, adding urgency to the search for an effective medication. Amyloid is the abnormal protein found in Alzheimer’s patients that is believed to be a hallmark of the disease. There is no known cure for Alzheimer’s disease, and several drug trials have produced disappointing results. But a growing number of researchers believe that the lack of progress may be because the drugs are now tested only in people whose Alzheimer’s is too advanced. Two studies involving two different drugs showed almost no effect for patients with mild to moderate Alzheimer, but showed some progress for patients with mild Alzheimer. While both drugs, Bapineuzumab and Solanezumab, clear amyloid from Alzheimer’s patients’ brains, they target different types of the protein, further complicating the mission to find an effective treatment, scientists said.
http://bitly.com/VKxF09

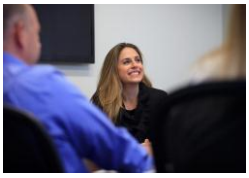
T cell vaccine company raises $30 million

(Boston Globe, October 10, 2012)

Genocea Biosciences Inc., a Cambridge company advancing T cell vaccines for infectious diseases, said that it has raised $30 million in a Series C financing round. Funds raised will support the continued development of Genocea's two lead programs: GEN-003, a vaccine candidate designed to reduce the frequency and severity of outbreaks associated with moderate-to-severe Herpes Simplex Virus type 2, and GEN-004, a vaccine candidate to prevent infections caused by Streptococcus pneumonia.
http://bitly.com/T8EFwY

New generation of biotech CEOs

(Boston Globe, October 14, 2012)



OvaScience is developing a treatment to improve the odds for women to get pregnant through in vitro fertilization, or IVF. OvaScience has raised $40 million this year alone, and hopes to land on the NASDAQ stock exchange by early next year. If it does, Dipp, 36, would be among the youngest CEOs of a public company in Massachusetts. OvaScience wants to address two of the big issues with IVF. The first is that about 30 percent of women in the United States end up with twins or triplets. The second, Dipp said, is that "once you hit 36, the decline of IVF's success rate is rapid," because eggs become less viable as women age.
http://b.globe.com/PvVWFz

Multivitamin could reduce cancer risk

(Boston Globe, October 17, 2012)

Millions of Americans take a daily multivitamin, hoping it will help keep them healthy, and now a large clinical trial has shown that it actually has a modest effect on preventing cancer, at least in older men. The study documented a lower rate of cancer deaths among the men taking vitamins, but it was not statistically significant, meaning it could have been a matter of chance. The men in the study tended to be white nonsmokers who ate little red meat and had about four servings of fruits and vegetables a day. Nutritional researchers not involved in the study noted that the cancer preventive benefits may not apply to everyone. But getting the right level of nutrients in the right balance appears vital for cancer prevention. Some nutrition specialists, however, said the new findings should not sway people to take a multivitamin.
http://b.globe.com/RJZROn

Many new Biotech labs being built west of Boston

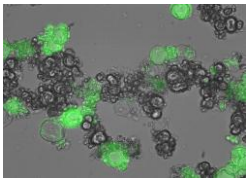
(Boston Globe, October 18, 2012)

While much of the economy has been stuck in low gear since the Great Recession, the life sciences industry has kept on growing in Massachusetts, with the Route 128 corridor leading the way. The boom in lab development, in turn, has played a key role in making Massachusetts the fastest growing state for life sciences jobs during the past five years, industry trackers say. Life sciences companies kept adding jobs in Massachusetts right through the recession, outpacing all other states, including much larger California, the Massachusetts Biotechnology Council announced in a report it released last month. Cost and room to grow are two big reasons
http://b.globe.com/RXZIUL

4. Nano / Micro Technology / Material Science

Tiny pharmaceutical factories

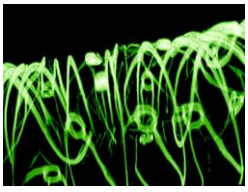
(Boston Globe, August 27, 2012)



Boston's newest pharmaceutical factories are swimming inside the body. These tiny structures – a human cell is 1,000 times bigger – are built from fatty membranes, DNA, and enzymes. In a study published in Nano Letters, researchers at the Massachusetts Institute of Technology reported developing injectable nanoscale particles containing all the biological equipment needed to produce proteins. A flash of ultraviolet light on the skin switches on these self-contained factories, which lie just below the surface and can be engineered to make different molecules. With further development, the technique could one day help scientists produce and control drugs for cancer and other diseases right inside patients' bodies.
http://tinyurl.com/04-120827

First three dimensional tissue wired with electronics

(Boston Globe, October 15, 2012)



A team of Harvard and MIT researchers has created the first three-dimensional piece of artificial tissue that's wired with electronics. Previously, researchers have embedded wires in a flat layer of tissue, but the new work marks the first time anyone has ever thought to wire a three-dimensional clump of cells, which is much more difficult and potentially much more useful. The crux of the invention is the ability to read the body's electrical signals, which is crucial to understanding how cells in the heart, muscles, nerves, bone, and blood supply communicate.
http://b.globe.com/RzhAaZ

Nanotube-silicon-hybrid chips

(Boston Globe, October 29, 2012)

IBM researchers at the T.J. Watson Research Center in Yorktown Heights, N.Y., are reporting progress in a chip-making technology that is likely to ensure the shrinking of the basic digital switch at the heart of modern microchips for more than another decade. They have been able to pattern an array of carbon nanotubes on the surface of a silicon wafer and use them to build chips that are hybrids of silicon and carbon nanotubes with more than 10,000 working transistors. Against all expectations, the silicon chip has continued to improve in both speed and capacity for the past five decades.
http://b.globe.com/RnPqfv

5. Information & Communications Technology

New Organization collaborates with Universities

(Boston Globe, September 21, 2012)

The Boston Globe and the MIT Center for Civic Media are collaborating to bring media experiments from the university to the audience of the Globe's websites, Boston.com and BostonGlobe.com. Scheduled to launch this fall, the project is funded with $250,000 from the John S. and James L. Knight Foundation. The Globe/MIT collaboration hopes to become a model for how the news organization could work with other universities in the Boston area. The collaboration will seek to meld the thinking about the future of media at MIT with the large digital audience that visits Boston.com and BostonGlobe.com every day.
http://b.globe.com/PukdZ5

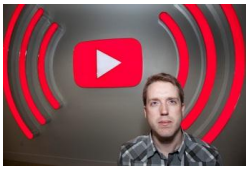
Data Center in a box

(Boston Globe, September 24, 2012)

SimpliVity Corp., a Westborough start-up founded by a former EMC Corp. executive is preparing to launch OmniCube, its "data center in a box". OmniCube will radically simplify storage and information technology infrastructure by putting multiple data-center devices and software functions into a single system that can be scaled up to meet a client's needs. Software designed to store, sort, share, and secure streams of incoming and outgoing data is all integrated into a 5-inch-high, 24-inch-wide and 32-inch-deep box.
http://bo.st/QwxMYp

Faster video download on YouTube

(Boston Globe, September 24, 2012)



Andy Berkheimer, YouTubes engineering manager reduced buffering, or the time it takes to download videos, by an average of 20 percent, and effectively sped up the launching of a video by a few seconds. The technology upgrade probably went unnoticed by the vast majority of YouTube users, who watch about 4 billion hours of video every month. But inside YouTube it was the biggest technology overhaul in the company's seven-year history. Online audiences have become impatient, viewers start closing out if there's even a two-second delay said Ramesh Sitaraman, a computer science professor at the University of Massachusetts Amherst and a research fellow at Akamai Technologies Inc
http://bo.st/PBd3A9

Mobile-payment firm tabs pool of talents

(Boston Globe, September 25, 2012)

Twitter Inc. cofounder Jack Dorsey came to Cambridge on a recruitment drive. He is looking to lure a few Massachusetts Institute of Technology graduates back to California to help him quickly grow his latest innovation: a mo-

bile payments company called Square Inc. that let consumers make purchases with their smartphones instead of using cash or credit cards. The 400-person company based in San Francisco is looking to double in size over the next year. Square has already grown quickly. The amount of money it processes through its payment system grew from $1 billion in 2011 to $8 billion this year. In the Boston area, it has 6,000 business customers. The Boston start-up Scvngr considers Square its biggest competition as it vies to win over consumers and merchants for its Level Up mobile payments platform, which is used at almost 700 locations around Boston.
http://b.globe.com/QOEpE1

Next generation mobile device

(Boston Globe, October 11, 2012)

The MIT Center for Wireless Networks and Mobile Computing will bring together scientists and engineers from academia and the private sector to create the next generation of mobile devices, with tougher data security, longer battery life, and faster data download speeds. The center is developing new antenna technologies that could transmit 10-times more data over a given radio frequency than today's devices. Data security will be another major research priority. Many wireless devices can be hacked and disrupted by skilled software engineers. The center will also study ways to make mobile device software and hardware more energy-efficient.
http://b.globe.com/T5BqN6

Dictation software for recording medical facts

(Boston Globe, October 15, 2012)

Nuance Communications Inc. may be best known for its Dragon software that lets users control a computer simply by talking to it, but the biggest play is in health care. Nuance has the ability to turn spoken clinical languages into data that can be cataloged on computers. Nuance's technology that turns dictation into medical facts can be a big time saver for harried doctors and nurses. Nuance has been at the forefront of giving machines humanlike abilities to understand and react to speech. In addition to its technology found on smartphone apps and its computer dictation software, it is also bringing voice recognition to cars and TV sets.
http://b.globe.com/Xa8aEq

Intelligence information on cyber threat to companies

(Boston Globe, October 20, 2012)

A new White House executive order would direct US spy agencies to share the latest intelligence about cyber threats with companies operating electric grids, water plants, railroads, and other vital industries to help protect them from electronic attacks. The draft order would put the Department of Homeland Security in charge of organizing an information-sharing network that rapidly distributes sanitized summaries of top-secret intelligence reports about known cyber threats that identify a specific target. With these warnings, known as tear lines, the owners and operators of essential US businesses would be better able to block potential attackers from gaining access to their computer systems.
http://b.globe.com/XaDS4C

World's fastest supercomputer at 20 petaflops

(PCWorld, October 29, 2012)

The U.S. Department of Energy's Oak Ridge National Laboratory (ORNL) completed the deployment of a 20-petaflop supercomputer called Titan, which the lab hopes will give the U.S. an edge over China and Japan in the race to build the world's fastest computers. The supercomputer has 700TB of memory, uses about 9 megawatts of power and is capable of processing 20,000 trillion calculations per second what makes it more than ten times faster than its predecessor called Jaguar. The U.S. makes effective use of available computing power to solve some of the top science problems in the country.
http://bit.ly/UZO5BB

6. Energy / Environment

Wave-energy device powers 1000 homes

(Boston Globe, September 04, 2012)

Ocean Power Technologies, a company from New Jersey designed the first commercially licensed grid-connected wave-energy device in the nation. Its planned launch is in October near Portland Oregon. The federal permit for up

to 10 generators came last month, enough, the company says, to power about 1,000 homes. The project's leader, Paul Klarin, said wave technology is so new, compared to, say, wind energy, that the designs are like a curiosity shop — all over the place in creative thinking about how to get the energy contained in a wave into a wire in a way that is cost-effective and efficient.
http://bo.st/TIKMPD

Solar energy boom in Massachusetts

(Boston Globe, September 23, 2012)

The solar energy market is booming in Massachusetts, as commercial building owners, municipalities, and name-brand retailers like REI and Kohl's take advantage of state incentives that have made it more affordable to fund solar power projects. In the last two years, solar energy-generating capacity in Massachusetts has more than tripled to 143.1 megawatts. The Solar Energy Industries Association, a national trade group, expects Massachusetts to rank in the top 10 among states that will add the most solar power this year. That growth has been spurred partly by the state's traditionally high energy costs.
http://bo.st/VwED6f

Tariffs on solar panels from China

(Boston Globe, October 12, 2012)

The Commerce Department upheld charges of 18 percent to nearly 250 percent on Chinese solar panel producers to counter what it said was improper subsidies by Beijing to the industry. A spokesman for one of China's biggest panel producers, Yingli Green Energy Holding Co., said tariffs of about 30 percent imposed on that company would make sales to the United States unprofitable. He said gross profit margins in the solar industry are about 10 percent. Foreign competitors complain Chinese solar manufacturers get improper government support in the form of low-cost access to land, bank loans, and other resources. Beijing acknowledges giving research grants and tax breaks but says those are in line with its free-trade commitments and practices by other governments.
http://b.globe.com/RTAwOD

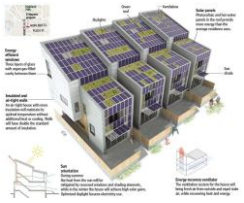
Cow methane to power ski lift

(Boston Globe, October 20, 2012)

Vermont's Killington ski resort says it's going to power one of its lifts this season with electricity generated from methane gas recovered from cow manure. The resort is planning to power its K-1 Express Gondola with electricity generated through Green Mountain Power's Cow Power program, which enables customers to purchase all or part of their electricity at a premium and support Vermont's dairy farms.
http://b.globe.com/RU60UH

Program to promote eco-houses

(Boston Globe, October 29, 2012)



Mayor of Boston, Thomas M. Menino, will kick off a building program: Build a home in Boston so efficient that it produces more energy than it consumes, and price it for less than $400,000. Eleven teams submitted proposals in a city design competition for the development rights, and city officials said the high level of interest will lead to additional projects in coming years. Construction of efficient homes is beginning to rise across the United States. Specialists in energy-efficient building say that demand for such homes has risen significantly in recent years, especially as home builders try to differentiate themselves by emphasizing environmentally friendly products.
http://bitly.com/Ua4FcE

Hurricane Sandy and climate change

(BostInno, October 31, 2012)

State officials in Massachusetts called for an "urgent" conversation about pollution and its role in causing global warming and "intensifying extreme weather events" after Superstorm Sandy destroyed homes, flooded subways systems in New York City. Markey, a Democrat and member of the legislature's Natural Resources Committee, said warmer water in the Atlantic Ocean is fueling storms like Hurricane Sandy, and the problem is rooted in air pollution. The storm is being heralded as one of the most destructive in recent history, with damage estimates reaching at least $10 billion, and already, scientists are agreeing with Markey that global warming could have been a factor.
http://bit.ly/TugePd

7. Engineering / Robotics / Space

Six-legged rideable robot

(Boston Globe, September 03, 2012)

Stompy is a six legged robot, with two jump-seats and a safety cage, all powered by a re-purposed forklift engine, designed by hobbyists. Gui Cavalcanti, 26, a 2009 graduate of Olin College and two former classmates are the lead designers of the project supported by a class of 15 students. Unlike most of the machines churned from the more than 80 robotics companies in Greater Boston, this creature has no purpose other than awe — it's an outsize toy built just because. The project is funded by more than 1500 donors. In addition to more than $97,000 donated, Stompy has drawn accolades from a slew of technology websites and private companies eager to sponsor the project.
http://bo.st/PtBrVC

New Envisioning Center develops customer specialized computing solutions

(Boston Globe, September 28, 2012)

The latest innovations from Microsoft Corp., the Envisioning Center is a cross between a staging area and tech lab where company engineers and customers try out Microsoft software in multiple environments, ranging from a home office to a doctor's office. The new facility is largely to help Microsoft's corporate customers, by developing specialized computing solutions tailored to their specific needs. The company centralized in Kendall Square "to be in the center of innovation." Neighbors such as the MIT and Harvard University produce hundreds of superb computer engineers, and Microsoft is eager to get hold of them.
http://b.globe.com/RiJmpr

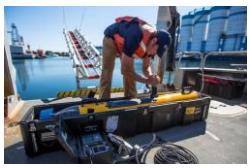
Low cost 3-D printer

(Boston Globe, September 23, 2012)

Formlabs plans to unveil its printer, the Form 1, the prototype 3-D printer that David Cranor and Maxim Lobovsky had built, which in a few hours could transform three-dimensional objects designed on a computer — perhaps a new car body or Bluetooth earpiece — into actual models, made of a hardened polymer material. It will sell for less than $3,000 to position the Form 1 as an inexpensive device that can produce objects at a resolution equal to a machine that costs $10,000 or more. While 3-D printers may be a futuristic device for which most of us can't imagine a use, the number of such devices on the market is growing by the month. There are millions of users creating 3-D content now, and there are engineers and designers who want to be able to hold a product in their hands.
http://bo.st/RdjTj9

New underwater charging stations for submarine robots

(Boston Globe, October 08, 2012)



More and more torpedo-shaped robots are plying the oceans to sniff out mines, gather environmental data, and scan the ocean floor for famous wrecks. But these underwater vehicles struggle with the same problem that heavy smartphone users have: short battery life. Now Bluefin Robotics has come up with a new solution: charging stations under water. These stations resemble cages and once it's inside, the robot is recharged wirelessly through inductive coils and any data the robot has gathered, such as images of the sea bed or boat traffic, could be uploaded to the docking station and transmitted to home base, which wires new instructions to the robot.
http://b.globe.com/TbqqI7

Record sky diver's suit is produced in Massachusetts

(Boston Globe, October 10, 2012)

To ensure that Baumgartner, 43, survives the trip, specialists at the David Clark Co. used their expertise to custom build a suit for the sky diver using selectively permeable materials, like Gore-Tex, that can hold air but let moisture through, and Nomex, which is heat and flame resistant. The David Clark Co. is considered a pioneer in the field, having designed protective equipment for air and space crews since 1941. The company outfitted the rocket plane test pilots who broke the sound barrier, and created the suit used in the first US spacewalk. While Baumgartner's suit takes much of its design from spacesuits, it is built to allow more flexibility at the joints than an astronaut's typical gear, which is made for sitting and is often hard to maneuver.
http://bitly.com/STkOs0
http://b.globe.com/T9Zr5D

Private rocket company delivers supplies to International Space Station

(Boston Globe, October 11, 2012)

SpaceX, a private company, successfully delivered a half-ton of supplies to the international space station, the first official shipment under a billion-dollar contract with NASA.
http://bitly.com/Vm4WKl

Unmanned aerial vehicle to populate skies

(Boston Globe, October 21, 2012)

Many expect that the domestic UAV industry is about to take off, and the Federal Aviation Administration has estimated that 30,000 drones could be aloft by 2020. One of the first UAVs to take to Massachusetts skies could be the Skate, a 2-pound, mostly foam aircraft priced at $35,000 and up. The Skate system fits in a backpack and delivers live video to the operator's control device. It can also carry an infrared camera, which can help spot people by the heat their bodies give off. The twin-propeller craft can transition from flying like a plane to hovering like a helicopter. It doesn't require a runway for takeoff; you just lob it into the air.
http://b.globe.com/X1ss36

8. Physics / Chemistry / Math

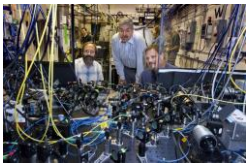
Exploration of Earth's treacherous radiation belts

(Boston Globe, Augist 31, 2012)

On a quest to explore Earth's treacherous radiation belts and protect the planet from solar outbursts, NASA launched twin satellites It is the first time two spacecraft are flying in tandem amid the punishing radiation belts of Earth, brimming with highly charged particles capable of wrecking satellites. These new satellites — shielded with thick aluminum — are designed to withstand an onslaught of cosmic rays for the next two years. The Johns Hopkins lab built the radiation belt probes for NASA and is operating them from Maryland following a week of launch delays. Scientists expect the $686 million mission to shed light on how the sun affects the Van Allen radiation belts, named after the astrophysicist who discovered them a half-century ago. These two new 1,400-pound probes contain the latest in microelectronics. Each satellite has eight science instruments.
http://tinyurl.com/08-120831

Low budget exploration of electron mysteries

(Boston Globe, October 08, 2012)



The experiment run by 11 Harvard and Yale university researchers on a budget in the low millions — is designed to probe some of the same unknown territory as the Large Hadron Collider in Europe, the local experiment cannot find the Higgs, but its leaders hope the modest experiment off Oxford Street could help guide or possibly even scoop the thousands of scientists working at the $10 billion collider, by detecting evidence of other new particles first. Detecting a lumpy electron could help determine the fate of one popular theory, which says all particles have heavy "super symmetric" partners a kind of particle twin. One type of these super symmetric particles could help explain the mysterious dark matter that makes up nearly a quarter of the universe.
http://b.globe.com/UNrnba

9. Architecture / Design

New construction projects funded by government

(Boston Globe September 15, 2012)

City regulators approved more than $1.5 billion of new construction projects. These projects together will add more than 1200 residences. The most important in downtown is the approval of $620 million for Filene's redevelopment; it includes a 625 foot residential building and new shops, offices and restaurants. Other areas that include growth are Brighton, were New Balance will build a new campus with sport arenas, retail stores, a new commuter rail station and offices. Fenway and South End are also part of this growth; there buildings with over 300 residences and a hotel with over 300 guest rooms are planned. At the moment more than 10 million square feet of residential and commercial space is under construction in the city of Boston.
http://b.globe.com/Qbqqbb

Swiss headquartered company brings novel design to NorthPoint development

(Boston Globe, September 25, 2012)

In architectural renderings, the building about to rise next to the Zakim Bridge is designed to look like a massive waterfall. The building's novel design — inspired by the nearby Charles River — is the latest creation of EF Education First, a for-profit company that offers academic classes and programs around the world. The new building will allow the company to add 400 new employees over the next 18 months, and its executives said they hope to eventually add another 600. EF's building will also add new public amenities, including a ground-floor restaurant that will spill onto 31,000 square feet of additional open space along NorthPoint Park.
http://bo.st/PFzTsJ

Design firm looks to reinvent toothbrush

(Boston Globe, September 27, 2012)

For Jake Felser and Ollie Haas, the toothbrush is too central to personal hygiene to be treated as a throwaway. ReBrush, as the new line of toothbrushes is called, is the latest product out of a Boston-based design studio called LittleBonsai that Felser and Haas started after graduating from Olin in 2011. ReBrush comes in two styles: The wood one, called ReBrush Maple, is made of sustainable hardwood; an aluminum handle, called ReBrush Element. A "year packs" include one handle with four disposable heads; the Element pack costs $25 and the Maple is $30. While targeting toothbrushes might seem like a quixotic venture, Haas said developing a more ecofriendly brush was an attainable goal.
http://b.globe.com/R3u7A6

10. Economy, Social Sciences & Humanities

Massachusetts economy slowed down

(Boston Globe, September 28, 2012)

The Massachusetts economy, which had been expanding faster than the national average, thanks largely to the state's strengths in technology and medical research, is now barely growing at all because of economic problems around the world, according to a group of nearly a dozen local economists. Worse, the report suggested, the slow growth will probably continue for the foreseeable future though the panel did not predict the state will slide back into recession. It could take years to repair the damage from the recent financial crisis and recession, which eliminated millions of jobs and sank many financial institutions.
http://b.globe.com/V5r66j

Current state of Boston's startup ecosystem

(Boston Globe, October 08, 2012)

The New England Venture Capital Association commissioned a survey to learn what Entrepreneurs think of them, and the current state of Boston's start-up -ecosystem. The groups surveyed 111 entrepreneurs who said they were planning to raise capital, were doing so, or had done so within the past two years. Respondents said that for starting companies in biotech, healthcare, robotics, and educational technology, Boston is better than Silicon Valley or New York. But when it comes to consumer-facing products, Boston is seen as a far weaker base than the Valley or Manhattan. Respondents also said they perceived the Valley as a slightly better place than Boston for storage, "big-data," and cleantech start-ups. "Access to talent" was rated as the biggest strength of Boston's start-up scene; "conservative VCs and lack of early-stage funding" were the biggest weaknesses.
http://b.globe.com/PMMuOh

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

World's largest start-up competition

(yourswissnexboston, October 25, 2012)

More than 1200 startups had applied to be part of the 2012 MassCallenge Ceremony Award. A first selection reduced that number to 125 which were offered a desk and 4 months of business development services at the MassChallenge HQ on Boston's Waterfront. Finally 16 nominee went home with cash going from 50K$ to 100K$ each.
http://bit.ly/TPQPeR

New space for science oriented startups

(Innovation Economy, September 20, 2012)

The founders of the Cambridge Innovation Center and the Mass Challenge startup competition, Tim Rowe and John Harthorne, are collaborating to create a new startup space for businesses that need a laboratory to develop new kinds of biopharmaceutical or synthetic biology products, called LabCentral. Rowe points out that the cost of an individual company building out its own lab is "very high". LabCentral is going to be a 20,000-square foot space in Kendall Square that could accommodate dozens of companies. It'd be dedicated primarily to lab tables, ventilated hoods, and equipment, with a few conference rooms or shared desk areas for meetings and computer-based work. Tenants would be able to rent a single "bench space" in the lab for one scientist on a month-to-month basis.
http://bo.st/PL2Q4F

Angel investments in startups recovering

(Boston Globe, October 11, 2012)

The $9.2 billion of start-up funding by angel investors still falls short of the $12.4 billion that were invested in the first half year of 2008 before the economic collapse. But the sector is recovering, and more angels around the country and in the Boston area are investing. Angels are high net-worth individuals who fund start-up businesses often in return for stock. The growth in angels follows the area's rising tech economy in which many young companies are looking for funding, said longtime angel investor Ham Lord, managing director Launchpad Venture Group. His group of 90 angels who meet regularly to consider investments has a waiting list for new members.
http://bitly.com/REmyjQ

"Go to" Investors in Boston

(Boston Globe, October 15, 2012)

One of the cooler start-ups in Cambridge right now is Axio, which is developing a headband that could improve your ability to focus on work, studying, or an athletic endeavor. Now Axio will be the first "start-up in residence" at the Central Square offices of IDEO, the renowned design firm. When an entrepreneur in Boston has a new idea, which investors see it first? 91 entrepreneurs were surveyed this month to create a list of the "go to" venture capitalists in Boston in five different categories. Some examples of this list are mentioned with the names.
http://b.globe.com/VAh407

Popular Kendall Square gets too expensive

(Boston Globe, October 25, 2012)

Kendall Square remains a successful business district: Office space is hard to come by, rents are rising, and it boasts a roster of marquee companies, from Microsoft Corp. and Google Inc., to Biogen Idec Inc. Ironically, it has its own success to blame, as a kind of gentrification has made Kendall too expensive or too popular for the many, smaller, younger tech businesses that gave the area such cachet. Cambridge officials recently circulated a survey among the Kendall community and hope it will help figuring out how to make Kendall "the kind of place that continues attracting start-ups.
http://b.globe.com/TBTvmf

Successful start-up pitches in Boston

(Boston Globe, October 29, 2012)

Five Boston start-ups, Jebbit, NBD Nanotechnologies, Timbre, Arcbazar and CoachUp and one from Manhattan, Siudewalk, made pitches to a panel of Boston investors in a session modeled after the ABC reality show "Shark Tank." Each entrepreneur had four minutes to pitch to the investors, followed by a few minutes of Q&A. The investors Dharmesh Shah of HubSpot, Dave Balter of Boston Seed Capital, and Fred Destin of Atlas Venture, had promised to invest as much as $100,000 in the start-ups, which they had selected from 70 applicants. They blew past that goal.
http://b.globe.com/SsHxtk

12. General Interest

World's largest regatta "Head of the Charles River"

(Boston Globe, October 22, 2012)

The two-day regatta on the Charles River had a confusing ending. Washington finished about five seconds faster than Harvard in a time of 14 minutes, 37.27 seconds. The Huskies received a 10-second penalty for rowing outside of a buoy in the final half-mile of the three-mile course and appealed. The umpiring committee and jury deliberated for more than an hour before upholding the appeal after finding photographic evidence that the Huskies' boat never left the race course. So the penalty was reversed and the Huskies, most of whom already had departed, were declared champions.
http://b.globe.com/RY5cl6

World record 1-ton pumpkin

(Boston Globe, September 29, 2012)

Ron Wallace of Greene, R.I., became the first person to grow a 1-ton pumpkin, shattering the world record at the giant pumpkin weigh-off at the Topsfield Fair, "The Freak II", which is considered the Super Bowl of pumpkin weigh-offs. It is the largest fruit ever grown. Until recently, many considered a ton to be an impossibility. Some thought the structure of the pumpkin could not support the weight; others thought it simply impossible to grow 2,000 pounds in one growing season, starting from a single tiny seed. The internet was very helpful for the growers as mistakes were shared and avoided.
http://bo.st/OxOR7f

13. Calls for Grants / Awards

> **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

> **EU Seventh Framework Programme**
The seventh EU Framework Programme on Science Research and Innovation
http://cordis.europa.eu/fetch?CALLER=FP7_NEWS&ACTION=D&RCN=34831

> **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

Upcoming Science and Technology Related Events

>> More events at swissnex Boston:
http://www.swissnexboston.org/activities/events-inhouse
