Nanotech lab top priority for MIT
Search for perfect location to build nMass lab continues

By Janelle Mansfield

Last April, President Susan J. Hockfield called the construction of the nano-Materials, Structures, and Systems (nMass) laboratory the Institute’s "highest academic priority" in a video outlining the MIT 2030 plan for campus development.

The nMass lab will bring together research activities and equipment that are currently in different locations around campus. It will gather existing nanoscale research — specifically projects requiring sensitive equipment — and allow for future expansion.

Nanoscale research is diverse, and happens in several of MIT’s academic departments. Some groups are working on integrated circuits, for instance, while others develop nanomaterials for electrochemical energy storage and conversion.

Associate Provost Martin A. Schmidt PhD ’88 says that MIT has needed a new nano-research facility for a while. He attributes this need to the physical condition of many current lab spaces and changes in the type of equipment used in this research.

Lawrence H. Summers ’75 (right) spoke Wednesday evening in Building E51 in a lecture sponsored by the Economics Association. In his talk, titled “Stimulating Growth in the Short and Long Run,” Summers spoke about the lack of demand as the key factor in the U.S. economy’s sluggishness. Summers, a former Harvard president, also talked about his experiences working for Presidents Clinton and Obama.

Megamimo wins Elevator Pitch Contest grand prize

By Austin J. Hess

The MIT $100K Elevator Pitch Contest wrapped up Wednesday at the final event in the Stata Center’s Kirch Auditorium. The Elevator Pitch Contest began with 285 contestants on Monday, and it was the first of a series of three contests sponsored annually by the MIT $100K Entrepreneurship Competition.

To win the $5,000 grand prize, individuals or teams of up to four people had to deliver a 60-second pitch of a business idea to judges in one of six categories: emerging markets, energy, life sciences, mobile, products & services, and web/IT. Sixty semifinalists were chosen over the first two days of the contest, and 12 finalists were then chosen from this group. The two finalists in each category were announced at the final event, when the judges chose a winner and two runners up for the contest.

The crowd at the Academy Awards-themed event, complete with inflatable noisemakers, overflowed the auditorium. The keynote address was given by Matt Lauer, founder of online jewelry retailer Gemvara, which has secured more than $25 million in venture capitalist funding. All four of the judges were also entrepreneurs in various industries.

Finalists were called up by category to re-deliver their pitches. They were sometimes cut off mid-sentence or mid-word by a loud buzzer at the end of a minute. The judges then had 30 seconds to ask questions of the contestants.

The finalists’ business ideas represented a wide range of industries, from optimizing sun protection compounds to facilitating micro-philanthropy for community service events, pro- files of brothers, and a bulletin about risk management policies.

Anderson also wants to increase communication between fraternity houses through "delegated meetings" for specific officers, such as publicity chair.

In Simmons and MacGregor, in addition to a second seat in Next House, were filled in subsequent elections.

New House still has only one senator, though it is allotted two spots. McCormack was allotted two senate positions last year, with two seats vacated by senators resigned.

A more complete description of the Nanolab location will be included in the next installment of this series.

Empty UA Senate seats filled by new elections or presidential appointments

The UA Senate has seen several empty seats lately, and not because of students dropping in and out. Several seats were never filled because nobody ran in UA elections or there was no clear winner. Other seats were vacated after senators resigned.

No candidate won a plurality in the McCormack, New House, or fraternity elections, but those seats were filled in final elections.

It is the responsibility of each living group to fill its vacant seats after elections.

Vacancies in Baker, Belknap, and ILG seats will be filled by senators appointed by those groups’ presidents, said UA President Allan E. Miramonti ’13. The 2011–2012 IFC Executive Board was elected on Wednesday, Nov. 16.

One of the initiatives Anderson would like to work on is a general newsletter for the fraternity community that would include information about upcoming community service events, profiles of brothers, and a bulletin about risk management policies.

IFC Elections, Page 8

2011–2012 IFC Executive Board elected

The 2011–2012 Interfraternity Council (IFC) Executive Board was elected on Tuesday by the Presidents’ Council, with Thomas A. Anderson ’13 elected as the IFC’s new president.

Anderson, a brother of Zeta Psi, was previously IFC Judicial Committee secretary. The new executive board will assume their positions at the next Presidents’ Council meeting on Wednesday, Nov. 16.

"My main concerns are interactions with the MIT community. I’d like to improve communications across the board," Anderson said.

One of the initiatives Anderson would like to work on is a general newsletter for the fraternity community that would include information about upcoming community service events, profiles of brothers, and a bulletin about risk management policies.

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Recruitment and Programming Chair

Evan P. Wang ’14 (Kappa Sigma)

Elevator Pitch, Page 8

The Staða wormhole dedication is Monday at 2:00 p.m. in the Forbes Cafe. Free ice cream!

Send news information and tips to news@tech.mit.edu.

FROM THE DESK OF THE 1 PERCENT

Oh, sure, the 1 percent really do care about the 99.

MIT DOES MACBETH

Shakespeare ensemble puts on quite a show.

ARTS, p. 7

THE RENAISSANCE THAT WASN’T

Fukushima didn’t kill the nuclear promise. It was already dead.

OPINION, p. 4

THE TECH TALKS TO JORGE CHAM

Creator of the acclaimed PhD comics chats with us, on video!

VIDEO, p. 10

CITY COUNCIL ELECTIONS, PART II

Familiarize yourself with the rest of the candidates.

NEWS, p. 9

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**FDA officials point to increased drug approvals**

By Gardiner Harris

Federal drug officials Thursday claimed credit for an increase in the approval of new drugs and applications, saying the need for legislation to continue financing the current drug approval system.

The Food and Drug Administration approved 15 new drugs in the year that ended in September, a number that was surpassed only once in the past decade.

The agency approved 24 of the drugs before they were approved in any other country. And many of them were important advances, including the first new drug for lupus in 50 years, the first new drug for Hodgkin lymphoma in 30 years, and the first drugs for late-stage melanoma that have been shown to prolong survival.

"I want to underscore that we approved a set of drugs that are truly medically important, and in fact did so in a way that made these drugs available to Americans before other places around the world," Dr. Margaret Hamburg, director of the FDA, said in a news conference.

The increase in drug approvals is good news for the pharmaceutical and biotechnology industries, which have failed to produce many new drugs in recent years. New drug approvals peaked in the mid-1990s and have generally declined since then.

"I think the point we’re trying to make is that when high quality science, good applications come before us, we are able to act swiftly and surely," she added.

Part of the reason for the agency’s new message is that it wants to try to persuade growing calls in Congress — supported by biotechnol- ogy and medical device industry groups — to weaken its approval processes.

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**Petition drive challenges medical marijuana ban**

BAKERSFIELD, Calif. — Kern County is not exactly the kind of place where you would expect a voter rebellion, what with its conservative rural residents, its five-live-the-lands values and its almost unshakable devotion to the Republican Party.

But over the last several months, Kern County — about 100 miles north of Los Angeles in the Central Valley and as far as it can get from San Francisco — has become the scene of a civil war of sorts over an issue, medical marijuana, whose supporters are among the country’s most unlikely converts.

At stake is a controversial new law — passed unanimously in August by the county’s all-Republican Board of Supervisors — which would require a 90 percent unanimous vote from the five-member board, which include the U.S. Submission would then go to the General Assembly, where approval would require a two-thirds vote among the 193 members.

Some European nations that might have been expected to support the Palestinian bid have since said that they would abstain; these include France and Britain, diplomats said.

During the committee meeting on Thursday, France indicated that it intended to abstain, according to diplomats.

If the membership bid fails in the Security Council, the General Assembly is expected to take up the matter. Members of the General Assembly cannot veto an initiative, but the body would be able to order advanced observer status on the Palestinians, much like the standing now held by the Vatican.

On Monday, UNESCO voted to accept Palestine as the organization’s 194th full member. In doing so, the organization — formally the U.N. Educational, Scientific and Cultural Organization — defied a mandated cutoff of U.S. funds under federal law, which will cost it one-quarter of its annual budget — the 22 percent contributed by the U.S. (about $71 million) and the 3 percent contributed by Israel.

After their success at UNESCO, the Palestinians are now expected to try to join many other U.N. organiza- tions, whatever the outcome of their bid for full membership through the Security Council.

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For years, FDA officials said little about the declining number of new drug approvals. Where some industry analysts blamed gov- ernment rules for the slowdown, agency officials instead blamed a decline in high-quality industry ap- plications and a general drought in industry labs.

Now that approvals are increas- ing, FDA officials are claiming some credit by saying that the agency has lowered some approval standards — particularly for cancer drugs — and speeded up many of the drug reviews.

Asked about this apparent con- tradiction, Hamburg responded, “I think the point we’re trying to make is that when high quality science, good applications come before us, we are able to act swiftly and surely.”

Part of the reason for the agency’s new message is that it wants to try to persuade growing calls in Con- gress — supported by biotechnol- ogy and medical device industry groups — to weaken its approval processes.

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**Weather**

**Sunny weather may wake you from extra hour of sleep**

By Shaena Berlin

SUNNY WEATHERPATTERN

Hundreds of thousands of people in the Northeast re- main without electricity after an early Nor’Easter dumped heavy snow that drowned trees and power lines on Sept. 29. Thankfully, temperatures have since dropped, and recove- ration is expected for the next few days. This should help enable utility crews, who are currently crowding the hard-luck ranks of the near poor, who do not qualify for many benefit programs and face longer waits for chores, like care, and medical help.

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**Extended Forecast**

Today: Mostly sunny. High 72°F (11°C).

Tonight: Clear and cold. Low 31°F (C).


Tuesday: Sunny and warmer. High 60°F (16°C).

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**Situation for Noon Eastern Time, Friday, November 4, 2011**

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**Facts and Figures**

- The fuller measures have also shown less poverty among children but more among older Americans; less among blacks than among whites.
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Europe, US market anxiety grows over Italy

By Graham Bowley

NEW YORK TIMES

When Italy issued 3 billion euros in new debt last week at an interest rate of more than 6 percent, it was the highest rate that it had paid to raise funds in recent years. The price was higher than it had to pay as recently as last summer — and the most expensive debt ever raised in the eurozone. The potential for default and a looming debt crisis are quickly re-awakening their racing financial crisis. Even as they frantically cut back their spending, European governments are struggling to meet their fiscal targets, the measures the debt servicing costs.崽

In Italy’s case, the extra bond yields are adding as much as 3.3 billion euros (about $4.1 billion) in additional interest payments annually, estimates of what the government could use that was earmarked for education and other services offered by the European Central Bank.

The Census Bureau’s traditional measures against pharmaceutical companies accused of illegal marketing, including sales, trades and gifts to relatives by Cubans who are emigrating, will likely be subject to greater government approval, the sources said.

“In that it’s huge” is an understatement,” said Pedro Freyre, an economist at the Cuban-American National Foundation.

Cuba has been a major player in the Cuban trade, and a strong advocate of allowing the free trade of property.

“An emergency manager is what we want to avoid,” said Dan Lijana, a spokesman for Bing, who briefed City Council members on Thursday.

There is no doubt that Bing’s suggestion comes as Detroit, Michigan’s largest city, faces a shortfall in its budget that is estimated to reach about $150 million early next year and has no signs of an imminent solution.

That would again call into question the status of the nation’s currency.

“Unfortunately, it’s going to look less like points of departure for Europe than hastily considered parliamentary maneuvering,” said a senior government official who was looking for a way to shore up support with both the Socialists and the opposition — or to negotiate a graceful exit. As has happened so often in the euro crisis, the fate of the European enterprise seemed to hinge on the political machinations of one of the union’s smallest members.

By Rachel Donadio and Niki Kitsanton

WASHINGTON — The number of people living in neighborhoods of extreme poverty grew substantially, by one estimate, last decade, according to a new report, erasing most of the gains that had been made in the previous decade, according to a new report, erasing most of the gains that had been made in the previous decade, according to a new report. The extent of the problem, however, is still unclear.

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“If I need to find out about some-thing, I have to go to the search engine and type the issue privately in recent days,” said Bing’s suggestion comes as Detroit, Michigan’s largest city, faces a shortfall in its budget that is estimated to reach about $150 million early next year and has no signs of an imminent solution.

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In the aftermath of the Fukushima Daiichi nuclear disaster in Japan, many wondered what the event’s impact would be on the nuclear power industry in the United States. Those who followed the nuclear industry didn’t need eight months to figure out the answer: why does nuclear power fail?

The outlook for U.S. nuclear power has worsened significantly in the past few months. Where once there were plans for new reactors to spring up, there are now only five, and even those planned reactors might disappear. Only one is actually under construction, and to it the industry is clinging with broken ground on a new reactor that is still designing its prospects. However, none of this is the gloom of Japan’s onus. On the eve of the Tohoku earthquake, one could just as moribund as it is today. The cause of this decline is not new, not concerned about safety, even or that old red herring, waste disposal — instead, it is simple economics. Other technologies, particularly natural gas, are often much cheaper than nuclear both today and projects of the foreseeable future.

In 2009, the Nuclear Future of Power Study released an update to its 2003 estimate of the costs of nuclear power. By be- coming a capital of $4,000/kW and a fuel cost of $6.67/MWh, the study’s authors projected a cost of new nuclear power of $6.6 cents/kWh. Using the same modeling approach, the cost of electricity from a nat- ural gas plant with capital costs of $805/kW and fuel costs of $5.26/MWh would be $4.4 cents/kWh.

What’s worse, the estimate of 6.6 cents/ kWh assumes that nuclear power is able to se- cure financing at the same interest rate as natural gas plants. In reality, credit markets assign a significant risk premium to nuclear power, bringing its totalized level cost of electricity to $11.3 cents/kWh, nearly twice the cost of natural gas power. Unless the capital costs of new nuclear power plants turn out to be significantly less than what experts ex- pect, or natural gas prices rise considerably in the near future, there is little reason to believe that any new nuclear plants will be built without significant subsidies.

This is frightening, for if nuclear power could not make a comeback within the next 10 to 20 years before nuclear can once again be considered a credible alternative to fossil fuels, four changes must happen.

1. The first problem facing nuclear power is its high capital cost. It is possible, of course, that one of the new reactor designs put forth by the industry will work. However, the cost of building a new nuclear power plant is so high that the industry is circling about, but such chances are few. And, just as it is likely that these reactors might be designed to cost significantly higher than expected. If AREVA’s recent forays in France and Finland do not deliver the numbers necessary for the project’s capital costs, it is a problem that may be widespread in the region. Reducing capital costs by starting with well-focused areas of interest in nuclear awareness, and top-notch research and development. This way, it seems, one cannot so much as raise one’s head from the velvet embrace of a gilded ball card or pennywhistle shall convince me otherwise! Fie, I say, to any provocateur who may be using this broadsheet as piti- ful Grumman machines. It is absurd to think about a future in which nuclear power is able to se- cure financing at the same interest rate as natural gas plants. In reality, credit markets assign a significant risk premium to nuclear power, bringing its totalized level cost of electricity to $11.3 cents/kWh, nearly twice the cost of natural gas power. Unless the capital costs of new nuclear power plants turn out to be significantly less than what experts ex- pect, or natural gas prices rise considerably in the near future, there is little reason to believe that any new nuclear plants will be built without significant subsidies.

Ten, this problem is a natural consequence of the principles of the project. There are many serious concerns about the safety of nuclear power. Estimat- ing the reactions of the costs of nuclear power. And like- wise, the nuclear industry is just going to have to catch some luck and see natural gas prices rise. That’s a tall order, given the new resources being opened up by hydraulic fracturing and the slowed con- struction in response to the drought. And so I say, to any provocateur who may be using this broadsheet as piti- ful Edison machines.

The second problem facing nuclear power is one of the cost of nuclear power. It is a natural consequence of the nuclear industry’s inability to build similar plants and having to build nuclear power plants taking a longer time to site and start. Only one is actually under construction, and to it the industry is clinging with broken ground on a new reactor that is still designing its prospects.

Finally, the nuclear industry is just going to have to catch some luck and see natural gas prices rise. There’s a tall order, given the new resources being opened up by hydraulic fracturing and the slowed con- struction in response to the drought. And so I say, to any provocateur who may be using this broadsheet as piti- ful Edison machines.

To reach us:

The Tech’s telephone number is (617) 253-1545. E-mail is the fastest way to get us answers. Please provide a clear subject line when you contact us, send mail to general@tech.mit.edu, and it will be directed to the appropriate person. You can reach the editorial board in chief by e-mailing tech@mit.edu. Please be sure to include press releases, requests for coverage, and information about upcoming events. Submit your articles to the editor should be sent to letters@tech.mit.edu. The Tech can be found on the World Wide Web at http://tech.mit.edu.
Arthursaurus Rex by Ramya Swamy

Hey Arthur, what are you up to?

Writing Tim the Beaver tenfition?

That's a thing?

Isawyou and MITFIML aren't enough to satisfy my procrastination needs any more!

I just finished autotuning all of Backaway's 3.097 OCW lectures...

...Carry on.

Sudoku
Solution, page 7

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

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<td>3</td>
<td>1</td>
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</tbody>
</table>

Techdoku
Solution, page 7

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

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<td>19+</td>
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</tr>
<tr>
<td>8+</td>
<td>21+</td>
<td>1−</td>
</tr>
<tr>
<td>2</td>
<td>7+</td>
<td>9+</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Crossword Puzzle
Solution, page 7

ACROSS
1 Vino region
5 Was defeated by
11 Letters for shock treatment
14 Any time now
15 Provo resident
16 Quid pro quo
17 Start of Ed Hoive quip
19 Mentalist Geller
20 River ends, often
21 “Scream” director Craven
22 Down with the flu
23 Ford dud
24 Scottish uncle
26 “Fiddler on the Roof” role
28 Part 2 of quip
31 Aged
34 Egg-coloring brand
35 Emetic medication
38 Cover
40 Part 3 of quip
42 Casa chamber
43 Birthplace of St. Francis

Dilbert by Scott Adams

Dilbert by Scott Adams
Help Desk by Michael Benitez

So first there’s a hurricane, then warm weather, then normal weather, then really cold, and then some super hot days followed by cold torrential downpours, then it gets warm again, then snows, then back to normal. Seriously, what is going on here?

The Tim by Tim Yang

No more philosophy books after five o’clock, okay sweethie?

Mom, dad! There’s a moral relativist under my bed!

He’s capable of anything

Our grading agency requires us to write a report on our activities.

It’s a lot of work, but don’t worry, I’m a strong believer in division of labor.

Can you write the whole thing by Monday?

How is that division of labor?

I don’t do any labor.

Piled higher and deeper

by Jorge Cham

WWW.PHDCOMICS.COM
We have no choice but to accept the tragic truth and partake visceraIly in the trials of its characters.

Lady Macbeth (Katherine A. Roe ’14) immediately demonstrates her ambitious nature: upon learning of the witches’ prediction that Macbeth will be king, she delivers the famous “unsex me here!” soliloquy, addressing the “spirits that tend on mortal thoughts.” “Fill me from the crown to the toe top-full of direst cruelty! Make thick my blood, stop up the access and passage to remorse, that no compunctious visitings of nature shake my fell purpose.” We learn Macbeth after his descent into madness and, in the end, his death. A terrible guilt has engulfed his mind. Unged by his wife’s assault on his manliness — “When you drust do it, then you were a man” — he has murdered Duncan, the king of Scotland, and then ordered the slaughter of rival Macduff’s wife, young son, and infant. When Macbeth leavens of his wife’s suicide, silence envelops the theater, and we hear a just-perceptible sob. Stunningly, then, he begins laughing crazily, desperately, in a telling confirmation of the wreckage of his humanity.

The plot of Macbeth is only the fulfillment of these prophecies. Yet the play is captivating, even enthralling, for we must consider what seems to be a deep conflict between the force of human will, especially the malicious power of Lady Macbeth, and the degeneration of Macbeth and his Lady into madness. The two students’ commanding performances give a seriousness to the production that prevents the farce sometimes attendant on young people’s performances of Shakespearian tragedy.

An interesting decision on the part of the set designer (Adam K. Strandberg ’14) is in the design of the Macbeth crest, which is dominated by the head of Medusa the Gorgon. Surely, this is a reference to the horror of the slaughtered king Duncan, whose body is discovered by nobleman Macduff (Keenan A. Sunderwirth ’14) who proclaims, “Approach the chamber, and destroy your sight with a new Gorgon.” More widely, the reference is to the horror of Macbeth’s tyranny. The actors are not the only excellent part of the production. The combination of the sound (Christopher D. Smith ’12) and lighting (Elaine M. Kung ’15) schemes lend immediately to the setting, chill castles and grim battlefields alike. Indeed, the transformation of the lofty and open La Sala de Puerto Rico into an intimate theater space is itself notable, as is the success of the stage manager’s (Kellas R. Cameron ’10) and set designer’s demarcation between the outside world of the Student Center, perfumed with Subway sandwiches, and the inside world of Macbeth — supernatural, tragic, and populated with grotesque apparitions and magenta-haired witches.
Do you aspire to have a lasting and positive economic impact on low-income countries in Africa with entrepreneurial ideas?

With the support of The MasterCard Foundation, the Legatum Center at MIT is funding new fellowships to promising students from Africa and other developing regions. During a fellowship year, Fellows will create sustainable businesses to enable opportunities for people around the globe.

VISIT LEGATUM.MIT.EDU TO LEARN MORE AND TO FIND OUT HOW TO APPLY.
Tuesday, Nov. 8 marks election day in Cambridge. On Tuesday we profiled eight candidates for Cambridge City Council, and today we follow up with nine more. The following information was compiled from interviews with the candidates, or, if they did not respond to Tech inquiries, information from http://rotw.winters.com (many thanks to Robert Winters!).

Gregg J. Moree

Background: 11 terms on council, 2 terms on Cambridge School Committee, State Representative of Cambridge and Somerville, co-creator of Cambridge Energy Alliance

Platform: • Innovative planning to solve city problems, such as hydroptic greenhouses (mini gardens that are easily maintained anywhere). • Increased funding for public services: firefighters, police, teachers, and emergency medical technicians. • Preserve Cambridge's rich culture, experience, tradition and history as we move forward. • Renew City Manager's contract.

Tim J. Toomey

Background: 11 terms on council, 2 terms on Cambridge School Committee, State Representative of Cambridge and Somerville, co-creator of Cambridge Energy Alliance

Platform: • Quality of life and public safety: increased bicycle patrols, expanded anti-drug unit, noise ordinances, support for neighborhood initiatives. • Reduce expansion of commuter rail traffic through Cambridge; encourage ride sharing, mass transit, and bicycling as alternative transportation. • Intelligent expansion of business in Cambridge, especially revitalizing Kendall Square with housing and retail development. • Utilizing green technologies (LEED certification standards met for new projects, solar panels for municipal buildings, recycle old building materials).

Denise Simmons

Background: 6 terms on council, 2008–2009 mayor; small business owner and lifetime Cambridge resident

Platform: • Seniors: access to fully-funded senior centers and reliable public transportation. • Creation and retention of affordable housing; aid in finding gainful employment. • Support small businesses. • Quality education for children: parental workshops, more collaboration between council and school administrations.

Marjorie C. Decker

Background: 6 terms as councillor; graduate of Harvard University School of Education

Platform: • Increase affordable housing options. • Support GLBT rights. • Consolidate and clarify city resources for Cambridge parents and children. • Environmental initiatives involving Cambridge youth (monitor and reporting with city).

Sam Seidel

Background: 2 terms as councillor; background in urban planning (president of board of Margaret Fuller Neighborhood House)

Platform: • Expand early childhood education options. • Reduce carbon footprint: encourage more efficient transportation, and make Cambridge a more bike-friendly city. • Urban planning: main projects include development of Kendall Square, Central Square, and Massachusetts Avenue corridor. Requires full involvement of neighborhoods and universities. Possible aftereffect to consider: economic competitiveness.

David P. Maher

Background: Current mayor, 6 terms on Council, four terms on Cambridge School Committee; Director of Development for Cambridge Family and Children Services

Platform: • Cooperative neighborhood coalitions: improve zoning requirements, reducing potential density, etc. • Improved relations between local businesses and universities. • Transition to new City Manager in March 2012. • Affordable housing: promote public and private partnerships. • Maintain quality public safety services; road and sidewalk improvement. • Discussion of possible changes to property tax legislation.

Craig A. Kelley

Background: 3 terms as councillor; environmental consultant (Greenpeace, Boston College Law School)

Platform: • Long-term, sustainable housing policy. • Fairer and more predictable property taxes. • Local neighborhood concerns (overdevelopment, potentially dangerous business uses in residential areas, etc.). • Safe streets: citywide traffic enforcement and education policy. • Strong school system: budgetary oversight and more teamwork with public school system.

Kenneth E. Reeves

Background: 11 terms on council, 3 terms as mayor, 3 terms chairperson of Cambridge School Committee

Platform: • Close achievement gap in public schools, particularly for minority students (are majority of student population). • Mentoring initiatives similar to Baby University, program that helps parents of children ages 0-3 prepare for future academic success. • Implement final report of mayor's Red Ribbon Commission concerning Central Square: maker Central better place to work, live and play, foster better relations with MIT.

Gary W. Mello

Background: Lifetime Cambridge resident

Platform: • Cap city budget at $450 million per year (5% reduction, return to 2010 spending). • Cambridge Health Alliance as baseline insurer for all city employees: keep money in house; will reduce cost of employee health insurance. • Transition to new City Manager in March 2012. • Affordable housing: alleviate overly populated neighborhoods. • Transition to new water supply: Cambridge's drinking water currently sourced from watershed alongside state’s busiest highway.
The Tech caught up with Cham for a video interview yesterday. Look forward to that early next week, but in the meantime, check out a teaser at http://tech.mit.edu/V131/N50/phd/video.html

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Exceptional Egg Donor Needed
Loving couple in search of attractive, well-rounded/highly accomplished woman under 28 to help them become parents.
Compensation exceeding $15,000 for the right donor & travel expenses paid.
Contact Dawn@Fertilityalternatives@gmail.com or 858-391-8393 for more info on process & eligibility.

SPERM DONORS
Earn up to $200 a month
Invest minimal time
Make a real difference in the lives of families
Receive free health and genetic screenings
APPLY ONLINE: SPERMBANK.com

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The Barry M. Goldwater Scholarship
The Barry M. Goldwater Scholarship and Excellence in Education Program was established by Congress in 1986 to honor Senator Barry M. Goldwater, who served his country for 56 years as a soldier and statesman, including 30 years of service in the U.S. Senate. The purpose of this program is to provide a continuing source of highly qualified students, men and women, who have an interest in pursuing careers in areas of science and engineering. The Goldwater Program provides scholarships of up to $7500 per academic year. Sophomore scholarship recipients will be eligible for 2 years of scholarship support. Junior scholarship recipients will be eligible for one year of scholarship support.

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Price of nano lab TBD
MIT looking for new site after Osborn Triangle falls through

Nanobol, from Page 1
“Our facilities are limited,” said Schmidt. “We have known for a long time that we were facing a day when we needed to improve our infrastructure.”

According to Schmidt, the new nMaSS lab will have office space and lab spaces housing the “most technically sophisticated” research equipment used at MIT, including clean rooms and ultra-low-lower vibration spaces for imaging.

Planning, design, and site selection for the new laboratory are ongoing.

Chief, MIT must figure out where to put the new laboratory. For the past six months, the institute has been looking at various sites on campus for the location with the lowest possible levels of vibration and electromagnetic interference, which can interfere with the sensitive equipment used in this type of research.

The Osborn Triangle — the site bounded by Main, Albany, and Osborne Streets — was originally thought the most favorable. However, measurements showed high levels of electromagnetic interference because of its proximity to the Red Line.

The Institute is exploring other sites on and around campus but is withholding naming until a specific site is selected. Some of these sites are already developed, so the nMaSS lab will likely require the demolition of existing buildings in addition to new construction.

Retooling older buildings — as was done to Room 30 in the 1980’s — is very difficult, said Schmidt.

There is no building design yet, but there is a rough estimate of the amount of space needed for the new facility. Faculty with nano-research equipment and major labs, like the Microsystems Technology Lab and the Center for Materials Science and Engineering, have given input regarding “how much space they need and what that space needs to look like,” said Schmidt.

Though MIT does not have an exact prioritization on the project, Schmidt says these types of buildings are the most costly to construct due to technical requirements.

“We want to maximize its use,” said Schmidt. “Planning is critical.”

Progress on the lab is constrained by site selection and building design, as well as the fundraising. No date is specified for nMaSS’s construction, but researchers are looking forward to seeing the new space. “Researchers will say that we need it very soon,” said Schmidt.
Summer Study in The Hague

The Palitz Fellowship for the Study of Dutch Culture and Art

Scope
Spring semester in preparation with a faculty supervisor, followed by summer in The Hague, Netherlands

Who may apply?
MIT students may apply no later than the fall term of the junior year. For eligibility requirements and other details, visit shass.mit.edu/palitz

Research areas
Any aspect of painting, history, or culture in the Dutch and Flemish Golden Age, e.g.: the art market; economic history; history of science, horticulture, or cartography; the technologies of print making and book production

Application process
Application contents include transcript, resume, research proposal, letters of recommendation. For full information and instructions see shass.mit.edu/palitz

Apply by December 9, 2011
shass.mit.edu/palitz

The MIT Concert Band performed its annual Halloween Concert in the Student Center on the evening of Sunday, Oct. 30. The performers were in full costume, dressed as characters like Superman, a cowboy, a pirate, a mushroom from Mario Kart, and deadmau5.

 UA plans to revamp election system

a write-in candidate, a fact unknown to her until she won the election. "I just didn’t have time for it," said O’Brien, who was surprised by her election and frustrated that the senate meeting was only one week after she found out. "I would’ve liked to know that I was at least in the running."

To fix such problems and improve elections overall, Miramonti said that the UA is currently working on its Election Code to "revamp the way [they] do elections." He said that the current voting system is "based on outdated technology," and that the voting website "looked like a bad Geocities page."

The voting system will be getting a "visual facelift" and improved mechanics, hopefully by the spring elections, according to Miramonti. This will allow the UA to have more flexibility with the election process, including possible notifications to write-in candidates of their nomination, which would prevent situations such as the one O’Brien found herself in.

—Bruno B. F. Faviero
Soccer defeats Wellesley, 1-0
Team next faces Wheaton in conference semifinal

By Mindy Brauer

Emily Kuo ‘13 scored in the 23rd minute, and Meghan S. Wright ‘13 made some key second-half saves as the MIT Women’s Soccer team scored a 1-0 victory over Wellesley College in a NEWMAC tournament quarterfinal at Roberts Field in Steenbrenner Stadium on Tuesday. With the win, MIT, the No. 3 seed, advances to a semifinal matchup with No. 2 seed Wheaton College on Saturday.

Most of the beginning of the game was played in the midfield area as both squads probed to find openings in the defenses. Sophomore Rachel A. Dias Carlson ‘14 had an early shot for MIT, as did Wellesley’s Alea Mohkhar, but both were easily saved aside by the goalkeepers.

MIT’s attack started to pick up in the 20th minute and the momentum it generated eventually led to what turned out to be the only goal of the game. In the 23rd-minute Rachel A. Dias Carlson ‘14 shipped a pass through the Blue defense to Kuo, who was open to the left of the Wellesley goal. She cor- rected the ball and fired off a shot from 12 yards out that found the back of the net for her team-leading sixth score of the season. Wellesley had a solid chance at the equalizer late in the half when Emily DeVito found herself open in front of the MIT goal, but her shot sailed high and the game re- mained at 1-0 at the half.

With the win, MIT advances to a semifinal matchup with Wheaton.

In the second-half, the Blue put pressure on the MIT defense and got an early opportunity five min- utes in on a shot by Chelsea-Ann Patry, but the shot was knocked down by the Engineers defense. Wellesley got off another pair of shots 10 minutes later from Emily Wilson and Truchti, but Wright was up to the task, saving both to pre- serve the MIT advantage.

In the 74th minute Wellesley had its best chance at the equal- izer. A scramble in front of the MIT goal resulted in the ball popping back out to the Blue’s Emily Wil- son. Wright was initially out of position to make the save, but by the time Wilson settled the ball and took a shot, Wright had recovered enough to make a diving stop.

MIT came close to expanding its lead in the 79th minute when Ambika M. Krishnamachar ‘15 got free for a good shot opportunity, but Wellesley’s Claire Cerda, who came into the game at halftime, made a diving stop of her own to keep it a one-goal game. Wellesley picked up a pair of corner kicks in the 89th minute, but was unable to generate a scoring opportunity off of either of the Engineers held on to take the win and advance to the semifinal round.

Wellesley outshot MIT, 13-12, but Wright was able to save all eight shots that found their way on goal. Cerda and S.J. Gray, who started the game for the Blue, each recorded four saves.

MIT (6-3-3) will play Wheaton on Saturday, Nov. 5 at 3:00 p.m. in a semifinal game that will be held at Springfield College.