



KURT L. KEVILLE

Monday morning Buildings 46 and 48 were evacuated due to a gas leak on the corner of Main St. and Albany St. Both buildings were cleared for re-occupation later in the morning.

Kaiser steps down as provost of MIT

*Effective end of October, will
return to teaching and research*

By Anne Cai
EDITOR IN CHIEF

Chris A. Kaiser PhD '87 will step down as MIT's provost at the end of October, President L. Rafael Reif announced yesterday in an email to the MIT community. Kaiser will return to teaching and research as an MIT faculty member.

"Since taking on the role of provost, Chris has served by my side through a challenging period for MIT, and I am grateful for his steady presence and sound advice," wrote Reif.

"The experience [as provost] has greatly broadened and deep-

ened my understanding of the scholarly work that takes place across MIT," wrote Kaiser in a letter to the MIT faculty. "It has honed my capabilities as an academic leader to help bring good ideas to fruition."

In October 2011, Kaiser — then-head of Biology and MIT faculty since 1991 — was selected to run the National Institute of General Medical Sciences (NIGMS), where he would have overseen NIGMS's \$2 billion budget for funding life sciences research. On Apr. 23, 2012, a week before he would have assumed

Kaiser, Page 15

3.091 experiments with new online learning this semester

Cima makes lecture, recitation attendance mandatory

By Kath Xu
ASSOCIATE NEWS EDITOR

At first glance, an MIT class without p-sets, exams, or essays sounds almost too good to be true. For 3.091 Professor Michael J. Cima, it is his semester-long experiment to test whether students learn better when residence-based instruction is combined with online instruction.

According to the 3.091 class website, the online component of the class includes lecture clips and short exercises on the MITx platform

to test understanding. The video clips are drawn from past 3.091 lectures, and lecture and recitation formats will remain more or less the same as in previous years. Cima hopes that the online learning sequences will free up class time to take more questions and do more demonstrations this term.

Cima stated that the largest problem that has emerged thus far is the number of upperclassmen who registered for the course without the

3.091, Page 10

MIT endowment rises to 10.9 billion, up seven percent from last year

MIT's endowment grew in fiscal year 2013 to \$10.9 billion, the highest ever, in large part due to investment returns of 11.1 percent, MIT announced Friday.

MIT's operating revenues were \$3.2 billion, which was \$28 million more than operating expenses in the same period, according to the Report of the Treasurer for the year that ended on June 30, 2013.

The investment returns were "robust," Executive Vice President and Treasurer Israel Ruiz wrote.

The portion of investment gains not reinvested but forked off to support MIT's operations amounted to

18.8 percent of the operating revenues, which are used to run the Institute. Research grants and contracts made up half of the operating revenues.

Fiscal year 2012 saw MIT's endowment surpass \$10 billion for the first time when it rose to \$10.1 billion. MIT's endowment was the fifth largest of any U.S. private university in 2012, after Harvard's \$30.4 billion and the endowments of Yale, Stanford, and Princeton, which were each between \$16 and \$20 billion.

The 2013 figures for the other schools have not been released yet.

—Leon Lin

Exiting provost speaks on braving funding cuts

Researchers at MIT facing funding troubles due to the federal budget sequester can rely on the Institute for "bridge funding" in the short term but may have to downsize their labs or adjust their research programs in the long term, exiting provost Chris Kaiser said in an interview.

"People are concerned about whether the research they've grown up doing — the research program they've put together since they were a postdoc or assistant professor — [will] be sustained in the next decade," he said.

The sequester, a set of sweeping cuts in federal spending that took effect in March, will likely affect basic science research more than engineering research, Kaiser said.

In May, VP for Research Maria Zuber pre-

dicted "a decrease in research volume in campus of about three to four percent."

Federal funding for on-campus research fell \$6.6 million, or 1.4 percent, from FY 2012 in FY 2013, according to the treasurer's report released Friday. Fiscal 2013 ended in June, so a third of that period was affected by the sequester. But funding at any given time often depends on decisions made months or years ago.

Kaiser echoed Zuber's assurances that MIT was in a good position to weather the sequester, given its size and competitiveness. "Frankly MIT has a lot more resources in the bank than almost any other institution, other than a couple of Ivy League schools. MIT is doing in-

Sequester, Page 15

IN SHORT

The Fall Career Fair is in the Johnson Athletic Center on Friday from 10–4 p.m. There are no classes on Friday. Get info on company info sessions at career-fair.mit.edu.

Eric Lander be talking about **Reading the Human Genome** on Wednesday at 6:30 p.m. at the Sidney-Pacific Mark Multipurpose Room.

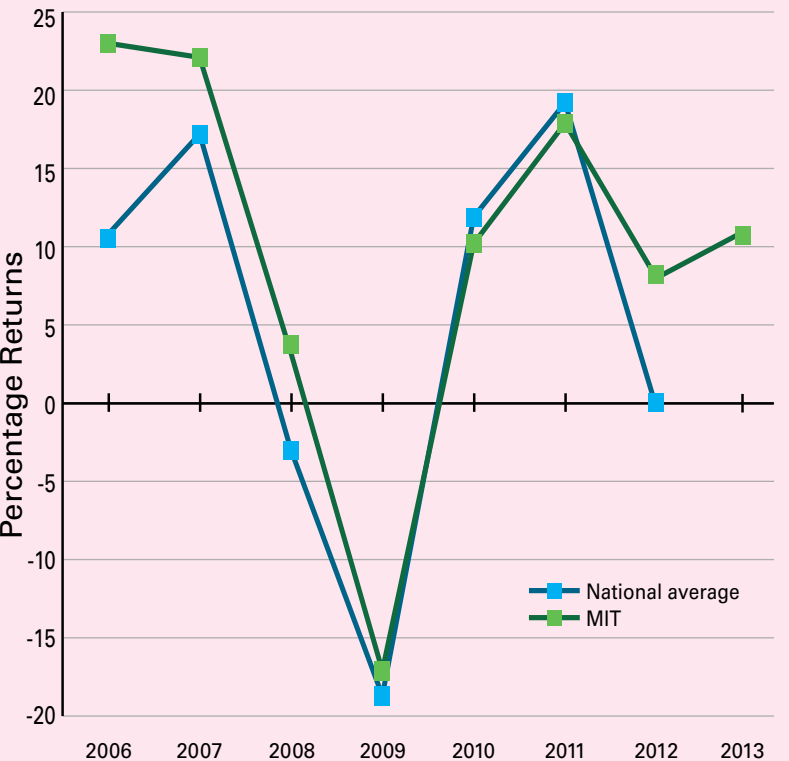
Jeff Hoffman, founder of **Priceline.com**, will be speaking on Oct. 7 in E14-633 at 5:30 p.m., brought by the Legatum Center.

Choose to Reuse will be in **Stata** this **Thursday**, 11 a.m. – 1 p.m. Drop-off begins at 8 a.m.

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

Endowment returns for MIT and other U.S. Universities

(National data from NACUBO-Commonfund Study of Endowments)



INFOGRAPHIC BY KRITHIKA SWAMINATHAN

HOW DID MIT RANK THIS YEAR?

QS World University Rankings ranked MIT 1st in the world.
NEWS, p. 14

INNOVATIVE STARTUPS

t=0 conference was a week of innovation. **CAMPUS LIFE, p. 11**

YOUR PERFECT MIT WEDDING

It'll be fun, we promise.
FUN, p. 7



FREE STUFF, EVERYWHERE!

Free shopping spree Friday! What are you actually supposed to do at Career Fair again? **FUN, p. 7**

THE INSTITUTE NEEDS A NEW GIR

MIT needs a computer science requirement to prepare students.
OPINION, p. 4

SECTIONS

World & Nation . . . 2
Opinion 4
Fun Pages 5
Campus Life . . . 11
Sports 16

12 dead after lone gunman opens fire in Navy Yard cafeteria

By Michael D. Shear and Michael S. Schmidt
THE NEW YORK TIMES

WASHINGTON — A former Navy reservist killed at least 12 people Monday in a mass shooting at a naval office building in Washington after he shot his way into the secure military facility, officials said, and then was killed by the police.

Parts of the nation’s capital were put on lockdown in the day after the shooting on the edge of Capitol Hill as the police sought two other armed suspects spotted by video cameras. But by Monday evening, federal authorities said they believed the shooting was the act of a lone gunman.

At Washington’s Navy Yard, the

chaos started just after 8 a.m. Civilian employees described a scene of confusion as shots erupted through the hallways of the Naval Sea Systems Command headquarters, on the banks of the Anacostia River a few miles from the White House and about a half-mile from the Capitol.

“I heard three gunshots, pow, pow, pow, straight in a row,” said Patricia Ward, a logistics management specialist from Woodbridge, Va., who was in the cafeteria on the first floor when the shooting started. “About three seconds later, there were four more gunshots, and all of the people in the cafeteria were panicking, trying to figure out which way we were going to run out.”

Police officers who swarmed the military facility exchanged fire with a gunman later identified by the fed-

eral authorities as Aaron Alexis, 34, a former naval reservist from Fort Worth, Texas. Police officers shot and killed Alexis, law enforcement officials said, but not before a dozen people were killed and several others, including a police officer, were injured and taken to local hospitals.

Investigators were still trying to determine how Alexis gained access to the Navy Yard. The site is protected by a high wall, with entry through checkpoints that require official identification. However, under the “force protection status” that was believed to have been in effect early Monday, someone with official access to the site could have driven a car into the parking lot without having the trunk inspected, or could have entered on foot without having a bag searched.

UN report confirms rockets loaded with Sarin in Aug. 21 Syrian attack

By Rick Gladstone and Nick Cumming-Bruce
THE NEW YORK TIMES

Rockets armed with the banned chemical nerve agent sarin were used in a mass killing near Damascus, Syria on Aug. 21, U.N. chemical weapons inspectors reported Monday in the first official confirmation by nonpartisan scientific experts, saying such munitions had been deployed “on a relatively large scale” in the Syria conflict.

Though the widely awaited report did not ascribe blame for the

attack, it provided in graphic and clinical detail the evidence of sarin residue in three neighborhoods in the Damascus suburb of Ghouta, the precise types of projectiles and trajectories to deliver it and the symptoms of the victims.

Secretary-General Ban Ki-moon called the attack the most horrific use of chemical weapons since Saddam Hussein of Iraq gassed the Kurdish village of Halabja a quarter century ago.

“The report makes for chilling reading,” Ban told a news conference after he delivered the report to

the Security Council. “The findings are beyond doubt and beyond the pale. This is a war crime.”

Ban declined to say which side he blamed.

The United States and its allies quickly seized on the volume of evidence in the report to draw the conclusion that only Syrian government forces of President Bashar Assad had the capability to carry out such a strike, calling it validation of their own long-held assertions. But Russia’s ambassador said there too many unanswered questions to draw such a conclusion.

Turkey says it downed Syrian helicopter in its airspace

ISTANBUL — Turkey said its fighter planes shot down a Syrian military helicopter on Monday that flew into Turkish airspace, a potentially significant escalation of tensions between the neighbors and former allies, which are now bitterly divided over Syria’s civil war.

Turkish officials said two F-16 warplanes were scrambled in the early afternoon as the Russian-built M-17 helicopter approached Turkey’s southern border. The helicopter’s crew was repeatedly warned by radio and did not turn back, the officials said. At 2:27 p.m., when the helicopter had strayed roughly a mile across the border, the jets fired on it, the officials said, and it crashed to the ground in Syria.

“No one, from now on, will dare to violate Turkish borders in any way,” the Turkish foreign minister, Ahmed Davutoglu, told reporters.

—Kareem Fahim, The New York Times

As Japan recovers, fears that tax increase could halt progress

TOKYO — Japan is on a roll. Its economy is growing at a robust 3.8 percent, the stock market is up by 40 percent this year, and the country is on the cusp of overcoming 15 years of deflation. Adding to the positive trend, Tokyo just won its bid to host the 2020 Summer Olympics, raising hopes of an investment and construction boom.

What could possibly go wrong? A plan to raise taxes at the worst conceivable moment, economists warned.

“It’s nonsense. Japan is only midway to recovery and hasn’t fully escaped deflation,” said Goushi Kataoka, chief economist at Mitsubishi UFJ Research & Consulting, which is affiliated with Japan’s largest bank, Mitsubishi UFJ Financial Group.

—Hiroko Tabuchi, The New York Times

Teenagers are shifting food habits

Teenagers are exercising more, consuming less sugar and eating more fruits and vegetables, a trend that may be contributing to a leveling off of obesity rates, a new study shows.

The findings suggest that aggressive anti-obesity messages aimed at children may be starting to make a difference, albeit a small one. The study was published in the journal Pediatrics on Monday.

Still, most teenagers were falling short of federal recommendations, which call for children to get at least an hour of physical activity daily, a central message of Michelle Obama’s signature “Let’s Move” campaign. The new data showed that most children engaged in an hour of exercise fewer than five days a week and spent more than two hours a day watching television, chatting online and playing video games.

—Anahad O’connor, The New York Times

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9:00 am to 10:00 am

Room #E51-057

Additional information session through Sloan School on Wed, Sept, 18th 11:45 am-12:45 pm, RSVP on CAREER CENTRAL

Spain on track to meet budget targets, emerge from recession

By Raphael Minder
THE NEW YORK TIMES

MADRID — Spain is on track to meet the 2013 budget deficit target it agreed on with its European Union partners and should emerge from recession before the end of the year, its economy minister said Monday.

The minister, Luis de Guindos also said that the government would not require additional one-time austerity measures as part of the 2014 budget that it will present later this month. The budget will be based on an improved forecast for 2014, both in terms of overall growth and unemployment, which hit a record 27 percent earlier this year, de Guindos said.

After the financial crisis burst Spain’s construction bubble in 2008, “no doubt 2014 will be the first year when Spain will have some recovery,” he said.

Given the depth of Spain’s recession, the European Commission agreed in May to give Madrid more time to reach its budgetary targets. De Guindos said he expects Spain’s

deficit to fall to the new target of 6.5 percent of gross domestic product — rather than the initial target of 4.5 percent - from 7 percent last year.

While Spain negotiated a banking bailout worth up to 100 billion euros, or \$133 billion, it ended up requesting only 41 billion euros to keep afloat institutions accounting for about 30 percent of its banking sector, including Bankia, a giant lender that Madrid nationalized in May 2012.

At the time of Bankia’s near-collapse, the center-right government of Prime Minister Mariano Rajoy initially resisted any outside intervention in the banking sector. In hindsight, however, de Guindos described the bailout Monday as “a model of what should happen” when a financial sector finds itself in such a precarious situation.

“The bailout of the Spanish banks prevented a bailout of the whole of Spain,” he said.

Although officials from the International Monetary Fund and other creditors started another review of Spain’s banking progress Monday, de Guindos suggested that “Spanish

banks don’t have an important capital need,” implying that Spain would not require an extension of its bank bailout.

For banks that sought to raise capital, he added, “the capacity to access the markets is completely different to a year ago.” Last week, Banco Sabadell announced that it was raising up to 1.4 billion euros to bolster its balance sheet and meet regulatory demands.

Furthermore, the interest rate premium demanded by investors for buying Spanish bonds compared to Germany’s benchmark bonds fell this month below the comparable premium on Italian bonds for the first time since March of last year.

The Madrid government has forecast that Spain’s economy would grow 0.5 percent in 2014 after contracting by 1.3 percent this year. De Guindos would not say what the improved 2014 forecast would be. And while unemployment is expected to continue falling, he warned that Spain still faced significant challenges in terms of creating jobs and reviving consumer spending.

Deadly force questioned after bystanders shot in NYC

NEW YORK — It began as just another bizarre Times Square scene, a disoriented man lurching amid traffic, seemingly throwing himself into the path of oncoming cars.

Police arrived and the crowd grew. The hulking man ignored officers’ commands while eluding capture. Then he reached into his pants pocket, withdrawing his hand as if it were a gun, police said.

Two officers opened fire, discharging three bullets. They missed the man, but struck two women. Other officers rushed toward the suspect; a sergeant used a Taser on the man, and he was quickly subdued.

The shooting Saturday night raised questions about the police’s use of deadly force, especially in a crowded area where bystanders could be in the line of fire. On Sunday, police officials, including Commissioner Raymond W. Kelly, refused to say if the shooting appeared justified, saying the circumstances were being investigated.

“From what I saw, he had nothing in his arms that was a weapon,” said Kerri-Ann Nesbeth, who was standing by a subway entrance when the episode unfolded.

The man, identified as Glenn Broadnax, 35, of Brooklyn, did not have a gun, police said.

—Michael Schwartz and J. David Goodman
The New York Times

United States ranks 11th in plague cases worldwide

The United States now ranks 11th in the world in cases of plague, according to a new survey of the disease.

With 57 cases in a decade, it is far below the hardest-hit countries, Congo with 10,581 and Madagascar with 7,182. Still, it is the only wealthy country on the list; 97 percent of cases are in Africa.

Most cases come from flea bites, but in the U.S. a national parks biologist died after inhaling the bacteria while doing a necropsy of a mountain lion, and a 60-year-old geneticist in Chicago died, apparently after being careless with a research strain he believed was safe.

—Donald G. McNeil Jr, The New York Times

Good options scarce if deal on Syria fails

WASHINGTON — The Russian-American deal to destroy Syria’s chemical weapons arsenal gives President Barack Obama some breathing space after a politically damaging few weeks. But the list of things that could still go wrong is extensive and daunting.

The two sides could deadlock over the text of a U.N. Security Council resolution codifying the agreement. Syria could insist on deal-breaking conditions or fail to turn over a complete accounting of its weapons within a week, as mandated. International inspectors could be obstructed on the ground or chemical stocks could be hidden from them.

Given all that, Obama has decided to leave U.S. destroyers in the eastern Mediterranean Sea to preserve the possibility of a military strike. But as the president and his team look ahead several steps, they are struggling to come up with a viable Plan B in case the agreement does not work, finding that they have few if any appealing options.

“Ronald Reagan says, ‘trust but verify,’ and I think that’s always been the experience of U.S. presidents when we’re interacting with, first, Soviet leaders and, now, Russian leaders,” Obama said in an interview on ABC’s “This Week” on Sunday. But he offered little insight into what he would do if he could not verify Syria’s compliance with the Russian-brokered deal to turn its chemical weapons over to international inspectors for destruction.

—Peter Baker, The New York Times

More rain expected in as Colorado as rescuers wait for fog to clear out

By Jack Healy
THE NEW YORK TIMES

DENVER — As rain continued to fall Monday along Colorado’s Front Range, officials waited for a clearing in the weather so National Guard helicopters grounded by rain and fog could resume searching for hundreds of people who remain cut off by floodwaters.

Officials said that they had not yet determined when the helicopter rescue flights could proceed, but the authorities have told residents isolated in Lyons, Jamestown and other mountain towns that once the helicopters were in the air that they should do what was necessary, within reason, to get the attention of the National Guard pilots. Among the suggested methods were to wave or place a white sheet on the roof of their house, light signal flares or small fires, or redirect the sun with mirrors.

Residents needing evacuation were also asked to pack medicine or clothes they might need because it could be days or weeks before they are allowed to return home.

Telephone landlines, cellphone service and the Internet have either been knocked out in the area or are undependable. Given the risk of further mudslides and the amount of mud, water and debris that have piled up in some places, even walking a few feet can prove difficult, officials said.

The rain, which has been falling on the Front Range for much of the past week, prompted fears of new flooding Monday. The National Weather Service issued a flash flood watch starting Monday afternoon and extending into the early evening hours in anticipation of heavy thunderstorms expected to roll through the area. Some of the storms could bring as much as 1 inch of rain in as little as 30 minutes, the weather ser-

vice said in an advisory.

The storms have left at least six people dead or presumed dead, the most recent reported fatality being that of an 80-year-old woman who was apparently washed away with her home.

More than 800 people are now listed as “unaccounted for” in Larimer and Boulder counties, the authorities said. Officials said they hoped that most of those people had simply been unable to reach friends and family members because normal lines of communication, including mobile phone service, remained undependable.

On Sunday, National Guard pilots waited all day for the fog to lift, but were unable to get off the ground.

“The good news is we’ve got 16 helicopters,” said John Schulz, a spokesman for the sheriff’s office in Larimer County. “The bad news is they can’t go anywhere.”

WEATHER

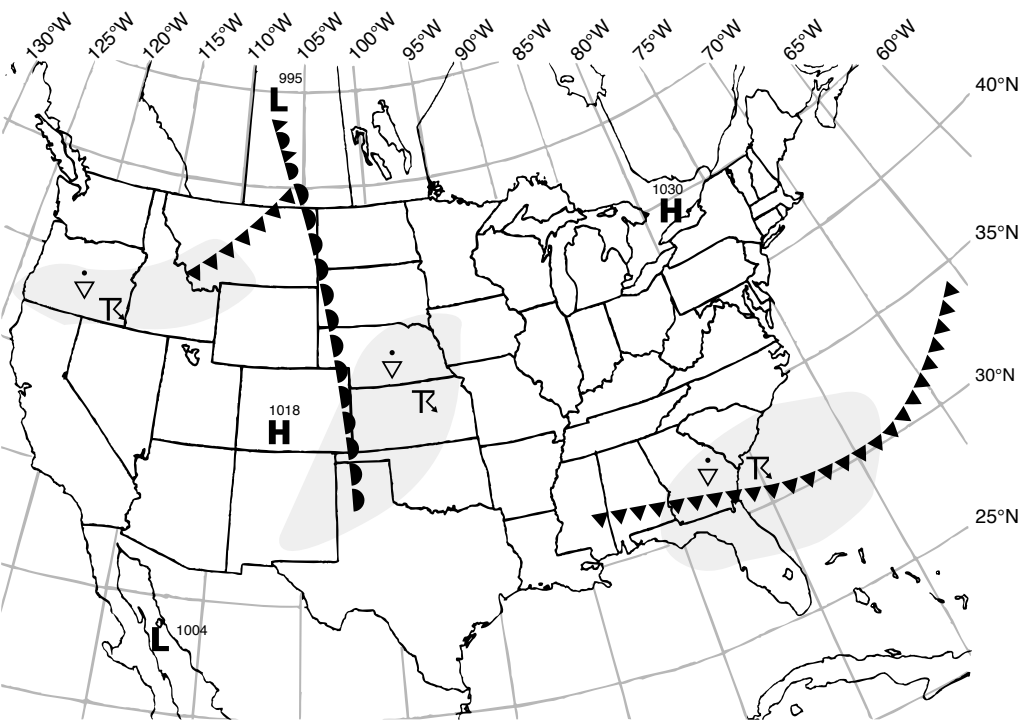
High pressure takes hold; sunshine in store

By Vince Agard
STAFF METEOROLOGIST

The cold front that brought yesterday’s morning showers has departed to our east, and in its wake has come a strong high pressure system that will take control of our weather for the remainder of the week. This broad anticyclone is poised to remain over the Northeastern United States at least through Friday, resulting in calm, clear weather throughout the region. Sunshine is in store for each of the next few days, and relatively light winds will make the seasonable

fall temperatures particularly enjoyable.

Temperatures will be a touch on the cool side this afternoon, as cold air continues to spill in from the north in the wake of yesterday’s cold front. The winds will die down during the afternoon and evening; however, temperatures will continue to plummet overnight as the combination of clear skies and calm winds allows the surface to cool by radiating heat away to space. For the rest of the week, though, expect enjoyable, seasonal weather, with highs in the 70s and lows in the 50s (°F).



Situation for Noon Eastern Time, Tuesday, September 17, 2013

Weather Systems	Weather Fronts	Precipitation Symbols		Other Symbols
		Snow	Rain	
H High Pressure	--- Trough	* Showers	• Rain	☁ Fog
L Low Pressure	— Warm Front	▽ Light	• Moderate	⚡ Thunderstorm
☄ Hurricane	▲ Cold Front	** Heavy	•• Heavy	∞ Haze
	— Stationary Front	***	•••	

Compiled by MIT
Meteorology Staff
and The Tech



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By Feras Saad
STAFF COLUMNIST

What is really needed is a full-blown introductory course for incoming freshmen.

The power of programming extends deep into the personal and professional world. It is time for MIT to ensure that its future graduates will all be able to tap into this power.



OPINION POLICY

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or

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Solution, page 14

- Divine
- 8 Mobile home
- 15 Duties, customs, etc.
- 16 Car collector
- 17 Far-out locale
- 18 Camaraderie
- 19 Word as rhymeless as
"pint"
- 20 See to it
- 21 Refinement candidate
- 22 World Team Chess
powerhouse
- 25 QM2 destination
- 26 Bus patron
- 28 String __
- 29 Sales bread-and-butter
- 30 Tip or top
- 31 Volvo purchase of 2000
- 34 Tip or top
- 35 Like
- 36 Video player pause control,
often
- 43 Name on the street

DOWN

- 1 Trailers and fliers
- 2 Make known
- 3 Plane, for example
- 4 Hollow spot
- 5 Fit
- 6 Aural guide
- 7 Leaves in the pantry
- 8 See to
- 9 Dripping more
- 10 Pops up

11 Hard knocks
12 Came (to)
13 Causing audience tears,
quite possibly
14 Forerun
20 Fix
23 Frat letter
24 Put a blot on
27 Moses' river basket, per
Exodus
31 Strolling band specialty
32 Tevye the Milkman author
33 Stretchy part of Pirelli's
logo
34 Age
36 Move slowly
37 Biting
38 Gets in sync
39 IPO funding recipient
40 Part of academic addresses
41 Started on dinner
42 Stuck
45 Legal article
46 Gets rid of

1	2	3	4	5	6	7		8	9	10	11	12	13	14
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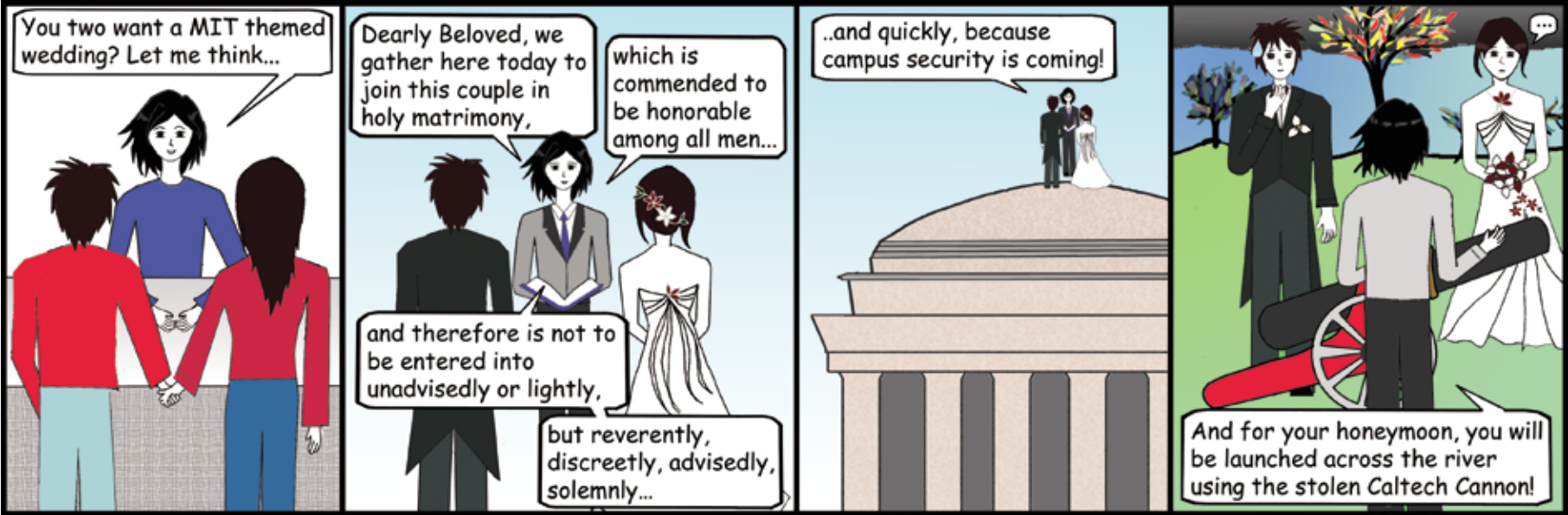
47 "Gallop apace, you fiery-	disapproval
footed __": Shak.	56 "What is __" (section of
52 Dot of tierra	heart.org)
54 Show approval, or	57 "Craft" product

Solution, page 14

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		7-		3x		6		3
84x						360x		
	22+				4+	315x	25+	
14+		14x	23+					
	1-				8			1-
23+		28+			3-		5	
	30x				2-	24x		63x
	9		8					

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–9. Follow the mathematical operations for each box.

Somewhere on the Search for Meaning by Letitia Li



Q.E.D. (QUITE EASILY DONE) BY ERIKA TRENT

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PILED HIGHER AND DEEPER

by Jorge Cham

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Canines by S.N.

Solution, page 14

ACROSS
1 Cake Boss airer
4 Flow away
7 Man-cave music maker
14 Blade in the water
15 Mimicking
16 Utterly foolish
17 Student-focused org.
18 Cousteau craft
19 Annoyed
20 Typist's tap
23 Bit of gymwear
24 Eiffel Tower, essentially
25 Whole lot
26 Enthusiastic
29 Fountain fare
30 Isolate, due to a blizzard
32 Earth Day org.
33 Special skill
35 Bluetooth alternative
36 Slow pitch
37 Most considerate
41 Tablet software

44 Zilch
45 Driver's invitation
49 Dust-jacket feature
50 Seasoned sailor
53 Climbed
54 Spread out
56 Safari sighting
57 Bottle one's anger
58 Likewise
59 Out of whack
61 Heat-retaining
64 Paranormal sighting
65 Fabric feature
66 Lost it
67 Deflate some
68 __ number on
69 Slow speed
70 Major rd.
71 Prefix for charge

DOWN
1 First sergeant, informally
2 Subsequently

3 Silly Putty owner
4 Cardinal point
5 Says without thinking
6 Boor
7 Agatha sleuth
8 Try out
9 Coily playful
10 Walk right in
11 Duplex descriptor
12 Till bill
13 Struck (out)
21 Light bite
22 Power, to Francis Bacon
26 Spirit of '76 instrument
27 NASDAQ debut
28 Apply lightly
31 Nintendo game console
34 Niece or aunt
38 Carol
39 Forensic ID
40 Piece of statuary
41 Muscles to crunch
42 Extraordinary thing

43 Be an omen of
46 Poker player's calculation
47 Poker player's phrase
48 Annual celebration
51 Sudden surge
52 Horselaugh

55 Ventricle outlet
59 Swiss abstractionist
60 Sluggish
61 Erstwhile Pan Am rival
62 Female octopus
63 Well-put

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Sunday was the last day of the MIT-France outdoor film festival on Kresge Oval. The movie shown was *Les Chansons d'Amour*, by Christophe Honoré.

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For more information visit: www.hudson-trading.com/careers



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career-fair.mit.edu

Weekly questions replace exams

Student response to new 3.091 assessment system mixed

3.091, from Page 1

intention of attending lectures. He said that they had scheduled other classes during 3.091’s lecture times and planned to just take the assessments to pass the class.

In response, Cima said he had to reluctantly implement mandatory recitation and lecture attendance. Students must now attend at least 80 percent of lectures and 80 percent of recitations. In an email sent to the class last Friday, Cima wrote that students will now have to swipe their MIT ID in one of several card readers that will be placed outside of the lecture hall starting with Friday’s lecture.

“My first concern is the integrity of the experiment,” explained Cima in an email to *The Tech*. “The objective is to compare the combination of online and residence-based instruction to residence-based alone. A large cohort only doing on-line assessment would compromise the interpretation of outcomes. Secondly, I do not have permission to give GIR credit for a totally on-line course. That may come one day, but my guidelines do not include this scenario.”

Two students, Rachel M. Nations ’16 and Miren Bamforth ’15, said that they prefer more flexibility when it comes to lecture attendance.

“Between going to lecture and recitation and the assessments at night, I don’t really use the online portion since I feel like I’ve already devoted more time than I would like to a subject outside of my major,” Bamforth pointed out. “If lectures weren’t mandatory, I would use the online material, and, in my opinion, learn more material more thoroughly. The online material is more flexible towards different learning styles.”

In addition to having to attend lecture, instead of taking traditional pen-and-paper exams, students in this semester’s Introduction to Solid State Chemistry class must pass at least 27 of

37 assessments online, which consist of a single problem each. These assessments are taken in a teaching assistant-proctored environment, and span all 14 units of the semester.

Although students can retake an assessment as many times as they wish, there is a 24-hour lockout period between attempts. An Athena cluster is reserved in the evening most days for students to come in and complete the assessments.

Students must now attend at least 80 percent of lectures and 80 percent of recitations.

“The idea of having assessments like this is a good one but it is still in the early stages of implementation,” Bamforth remarked. “Usually it is noisy and crowded in the assessment room. I am fine with this type of assessment for a GIR (General Institutional Requirement) that is not relevant to my course of study, but I wouldn’t want to have assessments like this for the classes in my major; I’d rather have to sit down and make sure everything is cemented in my brain for an exam than to try to add in little pieces constantly.”

On the other hand, Nations said that the new assessment system heavily influenced her decision to take 3.091 this semester. “The idea of no p-sets, quizzes, or long exams definitely appealed to me as well as did the flexibility and chance to work at your own pace that the whole system affords.”

Nations said that she dropped 3.091 last semester because “the teaching style didn’t really work [for me] ... and so the online system was very appealing.”

According to Kunal Mukherjee G, a

3.091 TA, a few bugs in the code have been found, but “the students have been surprisingly cooperative thus far, in that they weren’t upset when it messed up their test experience.”

Mukherjee continued, “We think we need a better system to answer questions that students have right after the [assessment] and are working towards this aim. Currently this is supposed to happen in the examination area but it’s not possible to do this effectively during busy hours when there are lines of students waiting to take the exam.”

The changes have affected not just students, but TAs as well, who now have to proctor the online assessment sessions.

“I was a TA last year and the responsibilities have changed slightly,” explained TA William F. Dickson ’13. “This year, the office hours are combined with the proctoring sessions, and each TA is required to proctor one session (3 hours) each week. The biggest difference is the learning curve associated with troubleshooting the software and bugs in the code.”

Although this version of 3.091 is currently only set to last for one term, it is possible that this version of the class will be repeated in the future. Cima noted that a report will be made in the spring on the results of this term’s 3.091 class. Depending on the outcomes, the Committee on the Undergraduate Program (CUP) might approve another run of this class.

“I think that the idea is a very progressive concept for education in general,” stated Dickson. “This entire process may end up being the ‘MIT-sanctioned’ proof-of-concept for online education. MIT’s taking a large risk in approving this class in the first place, because the repercussions of a successful run could mean an entirely new approach to education by universities.”

William Navarre contributed reporting.

EVENTS SEP. 17 – SEP. 23

TUESDAY

- (5:15 p.m. – 6:15 p.m.) Music, Manuscripts, and Megabytes: Unlocking sound in the ‘Ars Mutandi,’ talk by Professor Michael S. Cuthbert — 14E-304
- (8:00 p.m. – 10:30 p.m.) Contra Dance with live music by Forks of Nature — W20-491

WEDNESDAY

- (6:00 p.m. – 8:00 p.m.) Innovation Series Event: From Farm to Tablet: A Food Startup Feast — 32-123
- (6:00 p.m. – 8:00 p.m.) From MIT to Andy’s Room: the Birth and Evolution of Computer Graphics — MIT Museum
- (6:00 p.m. – 9:00 p.m.) Reading the Human Genome, talk by Prof. Eric Lander

THURSDAY

- (4:30 p.m. – 6:00 p.m.) Starr Forum: Strange Rebels: 1979 and the Birth of the 21st Century — 66-110
- (4:30 p.m. – 6:30 p.m.) Opening Reception for Sidewalk City: Mapping the Unmapped — 7-338

FRIDAY

- (7:30 p.m.) LSC shows *Radical Reels* — 26-100

SATURDAY

- (11:00 a.m. – 3:00 p.m.) Latin American Independence Day BBQ — Kresge pits
- (7:00 p.m. – 10:00 p.m.) Chinese Mid-Autumn Festival Gala — 50-Morss Hall

SUNDAY

- (1:00 p.m. – 3:00 p.m.) Eastgate Fall Harvest Festival and BBQ — E55

MONDAY

- (2:00 p.m. – 3:30 p.m.) Media Lab Conversations Series: Mark Bauman, Chairman of National Geographic’s Cross Platform Committee — Media Lab 3rd floor
- (5:30 p.m. – 6:30 p.m.) Moral, Political, Scientific: What is Thoughtful Engineering? — 66-110

Send your campus events to events@tech.mit.edu.

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INNOVATION NATION

A week of innovation

t=0 conference features startups solving the world’s problems

By Victoria Young

Robotic cheetahs, body-heat fueled technology, cameras that operate at the speed of light, and a potential cure for HIV? This compilation of fascinating topics at the cutting edge of research led the conversation at MIT’s t=0 week. Students filled rooms until it was standing room only as some of MIT’s leading professors presented state-of-the-art technologies, ideas, and businesses during this week to kick off entrepreneurship at MIT.

The week of t=0 culminated in a weekend-long hackathon where students worked together to build companies.

t=0 stands for “the time is now.” It’s a concentrated week jam-packed with innovation and entrepreneurship, hosted by The Martin Center for Entrepreneurship at MIT. t=0 was inspired by MIT alumni who have started companies and report the same thing over and over: “I wish we started sooner while at MIT.” The goal of t=0 is to help all MIT students kick off the year with cross-campus collaboration and accelerated idea generation. Hackers, artists, designers, engineers, scientists, entrepreneurs, and inventors united to get inspired and get started on solving important problems, developing sustainable, high-impact companies together. As someone completely new to the MIT community, I was so excited to get the chance to hear from professors and students from all across campus within the first few weeks of school.

Monday: Energy and Innovation Night

How can we bring more energy efficient solutions into consumer’s lifestyles and into the market? Professor Yet-Ming Chiang, the youngest tenured professor in MIT’s Materials Science and Engineering Department, opened the night with examples of the use of energy efficient solutions in Hawaii. Then, he launched into a discussion of the development of a groundbreaking new invention from his lab. Professor Eugene Fitzgerald took the stage next to discuss how to bring innovation to the market, leading the way into MIT student pitches. Trends in MIT student energy startups fell into a few categories:

- Clean energy for humans: From the energizing and healthy ReVivo Energy Chews to sustainable, social-impact driven Love Grain, a focus on clean energy for humans was a clear trend in startups on Energy Night.
- Sustainable, renewable energy: Nobody likes desperately seeking wall sockets to plug their electronics into. Thankfully, some exciting startups at MIT, such as the fashion-meets-technology company JonLou that makes purses with fuel cell chargers, are finding ways to develop plug-free, sustainable and efficient energy solutions.
- Smart energy: Systems that can learn your behaviors and needs to dynamically adjust to be more efficient are on the rise, as analytics improve and better integrated home solutions are developed.

Tuesday: Digital and Software Night

How fast can you visualize the world? How about at one trillion frames per second? MIT Media Lab’s Professor Ramesh Raskar invented a camera that moves nearly as fast as light itself and kicked off Digital and Software Night. Professor Erik Brynjolfsson of Information Technology and the Director of the MIT Center for Digital Business discussed how to create shared prosperity by racing with machines instead of against them. Trends in student startups in the digital area fell into the following categories:

- Streamlining data: Everyone is suffering from information overload these days, and a host of MIT startups are looking to fix that problem with intelligent interfaces that make it easier for users to find the information they need when they need it. Geosocial.io is a service that lets you keep up with the real world. Users can share, upvote, and discuss important activities with anyone in a community.
- Collaboration tools: To boost sharing in knowledge, photography, and video, several MIT startups are developing specific solutions for user needs. For example, Glyph is a unique picture-messaging platform whose mission is to democratize creativity by giving regular consumers access to high-quality visual design customized for their words, message or expression.

Wednesday: Hardware and Device Night

Hardware and Device Night kicked off with Professor Anantha Chandrakasan, the mastermind running EECS, the largest course at MIT. Innovator of MIT’s Robotic

Cheetah and designer of the 1st legged, glass wall-climbing robot, Professor Sangbae Kim showed students the strategic efficiency behind his inventions. Student startups in hardware varied in subject. NVbots offers a simple to use 3D printer and cloud interface that enables 24-7 printing, remote control from any device, and easy sharing between many users. In an entirely different realm, AvaTech develops state-of-the-art, proactive avalanche safety devices that help backcountry adventurers and professionals avoid life-threatening avalanches.

Thursday: Healthcare Innovation Night

MIT Assistant Professor of Chemical Engineering, Christopher Love inspired students on Thursday night by presenting the complex problem of finding more efficient ways of getting treatments to patients as well as encouraged students to discover ways of improving drug discovery and development. Meanwhile, inventor, co-founder, and board member of three venture-funded companies Professor Hart discussed the process of becoming an entrepreneur and the development of a 3D scanner that will streamline the generation of earphones and hearing aids by more accurately fitting them to the dimensions of the ear canal. Students then had the treat of hearing from several local physicians. Dr. Sachin Jain from the Merck Institute challenged students to find ways to promote medication adherence, given the detrimental impact it has on patients. Dr. Michael Docktor, who specializes in pediatrics and is on the executive team of Hacking Pediatrics, discussed the frustration and inefficiencies doctors face with the lack of digital software solutions for streamlining their practices. Students broke off into teams to ideate and brainstorm around these pain points. The week of t=0 culminated in a weekend long hackathon where students worked together to build companies and hack together prototypes of their products. Having just joined the MIT community a few weeks ago, I felt inspired by the breadth of innovation across campus. Even more inspiring was how incredibly down-to-earth, accessible, humble, and collaborative everyone was at each of these events as people from across courses mingled and learned about each other’s backgrounds and interests. To me, t=0 was the perfect way to kick off the semester at MIT and expose me to a variety of exciting ideas and people at a rigorous MIT pace.

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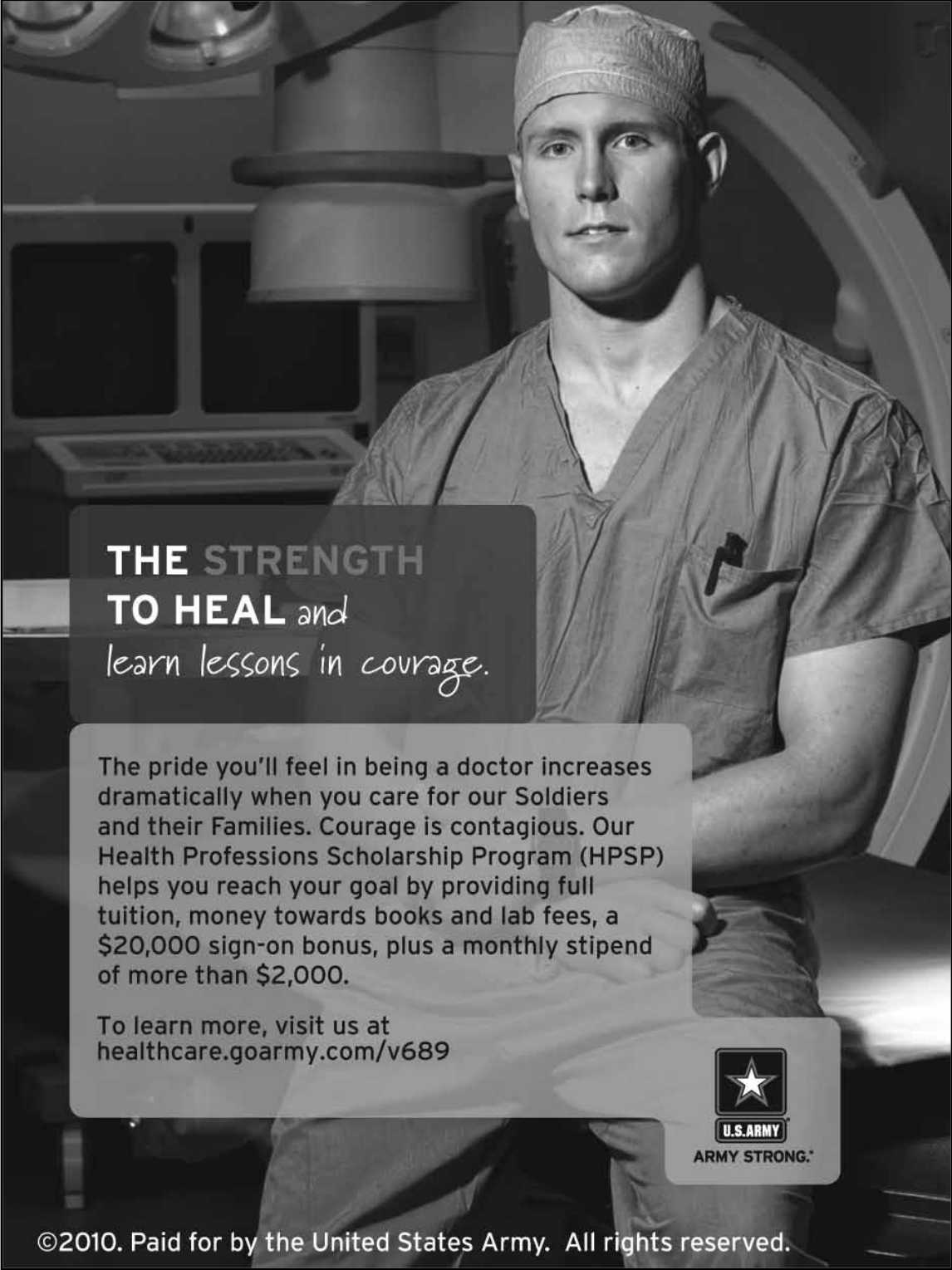


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Artwork by Anastasia Azure in collaboration with Dr. Larry Pratt, photograph courtesy of the artist

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Demolition of building next to Random will start within a week

Work is now underway for Random Hall's future neighbor. The building, to be developed by Forest City Enterprises, will serve as research and office space for Millennium Pharmaceuticals and will include more than 15,000 square feet of retail space facing the street on Massachusetts Avenue.

According to Peter Calkins, the Executive Vice President and Chief Operating Officer at Forest City, demolition of the existing building on 300 Mass Ave block will start within a week. Forest City is currently working on cutting and capping the old structures' connections to the city's utilities infrastructure.

"We are proceeding according to the plan," said Peter Calkins in a phone interview with *The Tech*. Calkins indicated that Forest City will start to lay the foundation for the new complex in November 2013, and the entire project will be completed by the end of 2015 or early 2016.

There will only be a five-inch-gap between the new building and Random Hall, but Calkins reiterated that Forest City's work will not require residents to move out.

In a meeting with Random Hall residents on September 5, Senior Associate Dean for Residential Life and Dining Henry Humphreys pointed out Forest City's track record of minimizing impact on its projects neighbors. He said Forest City "worked next to [a museum] while maintaining the exhibits" and "was tearing down a building next to a chocolate store, and the store didn't lose a single day of business."

There is not yet direct communication set up between Random residents and Forest City, but Calkins said Forest City is working on an online platform for direct communications. According to Sarah McDonnell from MIT News Office, students can communicate their thoughts or concerns through the area director for Random Hall, Michael Barcelo, who will then contact Facilities. He can be reached at mbarcelo@mit.edu or (617) 448-5705.

—Xin Chen



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Student Ctr 491 (4th floor)



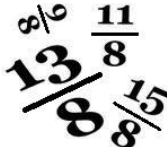
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Beginner's Nights @7:30: Oct. 2 & 9, Sala

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Schedule: Career Week

Schedules are subject to change. Please check online at career-fair.mit.edu/students/schedule.php for the most updated information.

Monday, September 16

Eyenetra	12–1 P.M.	20 Chimneys
Acquia	1–2 P.M.	Mezzanine Lounge
Procter and Gamble	6:30–7:30 P.M.	32-155
Shell	7–8 P.M.	32-141
Yext	7–8 P.M.	4-149
Bank of America	7:30–8:30 P.M.	4-231
Vecna	7:30–8:30 P.M.	6-120
Stripe	8–9 P.M.	3-333

Tuesday, September 17

Tessella	12–1 P.M.	20 Chimneys
B-Line Medical	1–2 P.M.	Mezzanine Lounge
MOTU	6–7 P.M.	32-124
Bridgewater Associates	6:30–7:30 P.M.	32-144
Saudi Aramco	6:30–7:30 P.M.	1-135
athenahealth	7–8 P.M.	4-231
Facebook	8–9 P.M.	6-120

Wednesday, September 18

This space donated by *The Tech*

Chevron	12–1 P.M.	20 Chimneys
<i>Data and Technology Panel:</i> Mediamath, Mysql, State Farm Insurance	5:30–6:30 P.M.	4-149
Communications Media Advisors	5:30–6:30 P.M.	1-242
Vivint	5:30–6:30 P.M.	1-246
Yelp	6–7 P.M.	4-153
Hudson River Trading	6–7 P.M.	5-234
Gameloft	6–7 P.M.	1-135
Palantir	7–8 P.M.	32-141
ExxonMobil	7–8 P.M.	32-155
<i>Healthcare Panel:</i> Counsyl, Intersystems Corporation, Nuance	7–8 P.M.	3-133
<i>IT & Technology Panel:</i> AppDynamics, Direct TV, Intel, Leaf	8–9 P.M.	6-120

Thursday, September 19

Evernote	12–1 P.M.	Coffeehouse Lounge
<i>Startup Panel:</i> AdHarmonics, IFTTT, Levant Power, Pixlee, Segment.io, Shapeways	2:30–3:30 P.M.	Mezzanine Lounge
<i>Software and Security Panel:</i> Appian, Broadway Technology, NSA, Raytheon BBN Technologies	5:30–6:30 P.M.	66-144
Central Intelligence Agency	6–7 P.M.	5-134
Sequoia Capital	6–7 P.M.	1-135
Cisco SF (Meraki)	6–7 P.M.	5-234
Box	7–8 P.M.	26-168
Bloomberg	7–8 P.M.	26-302
Schlumberger	7–8 P.M.	26-322
<i>Network/Mobile Panel:</i> Cisco Systems, Crittercism, Pocket Gems, Twitter	7:30–8:30 P.M.	32-141
<i>Finance Panel:</i> Allston Trading, Five Rings Capital, Jane Street, Susquehanna International Group	7:30–8:30 P.M.	32-155
Kick-off Reception (<i>Exclusive to Career Fair volunteers</i>)	8–10 P.M.	Mezzanine Lounge

Friday, September 20

Career Fair	10 A.M.–4 P.M.	Johnson Athletic Center, Rockwell Cage
SWE Networking Banquet	7–9 P.M.	Hyatt Regency

Saturday, September 21

On-Campus Interviews	9 A.M.–5 P.M.	
Networking Luncheon	12:30–2 P.M.	Student Center

How does MIT rank in 2013-2014?

QS ranked MIT #1 in the WORLD.					
US News & World Report ranked MIT #7 in the USA.					
By graduate program, US News & World Report ranked MIT...					
1st	Chemical engineering		Aero/astro engineering		Chemistry
	Electrical engineering		Mechanical engineering		Mathematics
	Materials engineering		Nuclear engineering		Physics
	Comp. science & engineering		Earth Science		Economics
2nd	Biology	3rd	Industrial Engineering	4th	Business

MIT topped the QS World University Ranking for the second year in a row, but fell to seventh in the US News & World Report National ranking for 2013-2014. At the graduate level, MIT remains ranked first in most engineering subjects.

INFOGRAPHIC BY ANTHONY YU



MELISSA RENÉE SCHUMACHER—THE TECH

The MIT Folk Dance Club held a contra dance on Tuesday night in Lobdell on the second floor of the Student Center. Contra dances will be held in the student center every Tuesday night through October.



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MIT Career Fair
Please visit us at the GE booth at the MIT Career Fair on September 20, 2013.

Solution to Sudoku

from page 5

7	3	4	2	6	9	5	1	8
6	1	8	4	5	3	2	9	7
9	5	2	8	7	1	3	6	4
4	8	7	1	9	5	6	3	2
3	2	5	6	8	7	1	4	9
1	6	9	3	4	2	7	8	5
8	4	1	5	2	6	9	7	3
5	9	3	7	1	8	4	2	6
2	7	6	9	3	4	8	5	1

Solution to Techdoku

from page 5

1	5	6	4	3	2
5	3	4	2	1	6
4	2	3	1	6	5
6	4	5	3	2	1
2	6	1	5	4	3
3	1	2	6	5	4

Solution to Sumo Techdoku

from page 6

7	1	4	9	6	5	2	3	8
2	5	8	4	1	9	6	7	3
4	7	1	6	3	2	8	9	5
3	6	9	5	2	1	7	8	4
5	8	2	7	4	3	9	1	6
1	4	7	3	9	8	5	6	2
9	3	6	2	8	7	4	5	1
8	2	5	1	7	6	3	4	9
6	9	3	8	5	4	1	2	7

Solution to Crossword

from page 6

P	R	E	D	I	C	T	A	L	A	B	A	M	A
R	E	V	E	N	U	E	R	E	P	O	M	A	N
O	P	E	N	S	E	A	R	A	P	P	O	R	T
M	O	N	T	H	M	A	K	E	S	U	R	E	
O	R	E	A	R	M	E	N	I	A	N	Y	C	
S	T	R	A	P	H	A	N	G	E	R	T	I	E
							R	E	O	R	D	E	R
M	A	C	K								E	D	G
A	L	A		S	P	A	C	E	B	A	R		
R	E	P		A	U	T	O	I	D	I	D	A	C
I	I			U	N	T	R	U	T	H	L	O	T
A	C	T	I	N	G	U	P		E	R	A	S	E
C	H	A	S	T	E	N		C	A	R	O	U	S
H	E	L	L	E	N	E		P	L	E	A	S	E
I	M	P	A	R	T	S		R	E	D	R	E	S

Solution to Crossword

from page 7

T	L	C		E	B	B	J	U	K	E	B	O	X
O	A	R		A	L	A	A	S	I	N	I	N	E
P	T	A		S	U	B	N	E	T	T	L	E	D
K	E	Y	S	T	R	O	K	E		T	E	E	
I	R	O	N		T	O	N	F	E	R	V	I	D
C	O	L	A		S	N	O	W	I	N		E	P
K	N	A	C	K		W	I	F	I		L	O	B
							K	I	N	D	L	I	E
A	P	P		N	O	N				H	O	P	I
B	I	O		S	E	A	D	O	G		R	O	S
S	P	R	A	W	L		G	N	U		S	T	E
				T	O		K	E	R	F	L	O	E
T	H	E	R	M	A	L		U	F	O		D	Y
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Kaiser to return to teaching, research

Addressed Kendall, edX as provost

Kaiser, from Page 1

the position, he withdrew from being chief of NIGMS. About two months later, Kaiser assumed the role of provost as his predecessor — Reif, who served as provost for seven years — became president.

In his announcement yesterday, Reif thanked Kaiser especially for his leadership in “developing a working consensus on MIT’s plans” with the Kendall Square zoning petition.

“The faculty really felt that they hadn’t been adequately consulted,” said Kaiser in an interview with *The Tech*. “Most faculty really had no idea what the plan [for the Kendall area development] actually was.” As such, the faculty “weren’t necessarily opposed to the project per se, but they were opposed to moving ahead without the project being clearly understood or clearly vetted by the faculty.”

“Reactivating my lab is a big deal for me. It’s my first passion.”
Chris A. Kaiser PhD ’87
MIT PROVOST

To address faculty concerns with the Kendall area development, Kaiser set up a task force. However, “[the task force] produced a useful report, but there was never a full and open discussion of the whole faculty,” said Biology Professor Jonathan A. King, chair of the Faculty Newsletter editorial board who has been a vocal critic of faculty non-involvement. “I certainly hope the next provost recognizes that the faculty are stakeholders in the actual future of the campus, and that radical actions like placing large office buildings in the heart of east campus would be much more broadly and seriously discussed than they have been to date.” The next provost, King said, should establish a campus planning committee as a standing committee of the faculty.

With respect to the Kendall re-

zoning proposal and edX, “there are enormous economic pressures pushing in various directions. These are not strictly scholarly or academic decisions,” said King. “[Kaiser’s] whole history is basically as a research scientist with hardly any history of participation in socially controversial or economically complex issues. I suspect that he may have been uncomfortable on this provost hot seat.”

Despite this, Reif wrote that “[Kaiser’s] sensitivity to faculty concerns and ability to bring people together were essential” to progress in the Kendall area developments.

As provost, Kaiser was also deeply involved in the governance of edX, particularly working with Chancellor Eric Grimson PhD ’80 to create the positions director and associate director of digital learning, appointing Sanjay Sarma and Isaac Chuang respectively. “I have been an enthusiastic cheerleader as the revolution in online learning sweeps across MIT,” wrote Kaiser in his letter to the faculty.

But “administration and cheerleading are not the same as doing,” wrote Kaiser, adding that he is eager to return to teaching and developing new educational tools.

Teaching assignments are made by the department, but “I’m hoping I’ll be able to develop an MITx course or part of one,” said Kaiser, who taught 7.03 (Genetics) from 1992 to 2011. “I’d like to do something with online learning, and reactivating my lab is a big deal for me. It’s my first passion — the reason I headed down this path of becoming a professor at a research university is because I love research.”

Much of what the provost does is “finding people, encouraging people to do things, appointing people to be directors,” said Kaiser. As such, the job of the next provost will be to continue “steering the ship wisely.”

In the search for the next provost, Reif encouraged the MIT community to help identify candidates by sending an email to provostsearch@mit.edu or with letters to Room 3-208.

direct funding that MIT requires.

These measures and others are intended to help affected labs transition to times when funding will be harder to obtain. The affected labs may have to either shrink or “redirect basic research to applied research” in order to more easily justify funding. Support from MIT would give students and staff time to find new jobs, if necessary.

“That readjustment period is a very vulnerable period,” Kaiser said. “It’s very painful to write layoff notices.”

—Leon Lin



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KILLIAN
HALL

Engineers win 6-3 over Wellesley College in their first road match of the new year

Playing on the road for the first time this season, the MIT women's tennis team made it two-for-two on the young season as it took a 6-3 win at Wellesley College in a New England Women's and Men's Athletic Conference match. Victoria Tam '16 and Elysa M. Kohrs '17 each won in singles and doubles for the Engineers.

Michelle M. Dutt '15 and Krystal Y. Lai '17 picked up the first point for MIT (2-0, 2-0 NEWMAC) with an 8-3 decision over Kendall Tada and Samantha Stone at No. 3 doubles. Tam and Kohrs got the same result at No. 2 before the No. 1 Wellesley team of Sojung Lee and Carina Chen got by Lauren C. Quisenberry '14 and Julia C. Hsu '14, 9-7, to put the first point on the board for the Blue.

Wendi J. Kong '17 picked up another point in singles play for MIT when she took a 6-1, 6-3 decision over Tada at No. 4.

The final two matches went to three sets, with each squad getting a win.

Engineers then clinched the match with victories in the Nos. 1 and 4 matches. At No. 4 Tam took a 6-2, 6-2 win over Lina Ye and Quisenberry took the deciding point at No.

The final two matches went to three sets, with each squad picking up a win. For MIT it was Kohrs that came back from a second set setback to score a 6-1, 3-6, 6-1 win over Chen at No. 2. At No. 6 Dutt took the first set in her contest with Stone, but eventually fell by a 2-6, 6-4, 7-5 score.

MIT will be back in NEWMAC action tomorrow when it hosts Springfield College at 1:00 p.m. Wellesley will play again on Sept. 18 when it hosts Mount Holyoke College at 5 p.m.

Women's C1 Sparring team earns gold; Men's A1 team reaches finals against Cornell

The MIT Sport Taekwondo Club competed in this year's National Collegiate Taekwondo Association (NCTA) Championships, and placed top three in the Overall, Novice and Championship (Black Belt) divisions in a series of tough matches that put the team's skills to the test. Additionally, the team managed to put forth stellar performances at Rensselaer Polytechnic Institute Tournament (RPI) in NY, coming only second to Cornell in the Division I results out of over 15 schools.

In forms, the team made an amazing demonstration of coordination, strength and equilibrium which finished in gold for Tahin Syed and Karine Yuki, silver for Geoffrey Gilmore and Tam Nguyen, and bronze for Tiffany and Stephanie Chen. In the black belt category, gold went to Michelle Chen '14, Miyako Yerick (U. Texas Austin) and Carissa Fu (Boston U.) in the team trials divisions, and gold for Michelle Chen, Erika Lee and Hilary Monaco, bronze for Lori Ling, Kristina Lozoya '13, Tara Sarathi G, Matt Weinberg, Andrew Mandelbaum G and Dan Stallworth '14 in the championship division.

Then, Yerick, and Fu would go on to represent the United States in August, visiting South Korea to train with their university counterparts in a National Collegiate Taekwondo Team Training Camp.

RPI, which happened a week after the NCTA championships, was slightly different. It had been, in the words of Head Instructor Daniel Chuang, “a trying week”: With the unfortunate events surrounding the Boston Marathon, the lockdown of campus, and the fact that there were two major tournaments one after the other, all in one week’s time, it was just amazing to see the dedication that the team put into it.

Master Chuang said that he was “very proud of how the team held together ... I think that the team performed exceedingly well and managed to still have a very close shot at winning the cup. For yet another season, it came down to just a few close matches/poomsae [forms].”

Indeed, in forms the team's excellence was proven over and over again. Michelle Chen, Tam Nguyen, and Isaac Fenta obtained gold in their respective categories (thus making 4 golds in a row for Tam and 3 for Isaac in ECTC tournaments), while



MIT's Michelle W. Chen '14 competes for the MIT Sport Taekwondo club team.
The club attended the national competition in Colorado last semester where they won second place overall.

Yang Dai and Geoffrey Gilmore obtained silver and Matt Weinberg and Jean Chow got bronze.

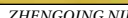
The sparring matches were intense, to say the least: the Women's C1 (beginner) team, comprised of Jean Chow, Jackie Wu '16, Margaret Okobi '16, and Yang Dai as alternate, earned gold. The Men's B2 (intermediate) team, with Kevin Hu '14, Brandon Baker G and Shapagat Berdibek '15 got bronze after a series of really close matches against Tufts, Vermont, and Cornell. Both Women's and Men's A1 (advanced) teams got silver, and the matches can be considered as some of the most memorable of the season.

The Men's A1 team (Matt Weinberg, Aziz Abdellahi G and Daniel Stallworth) fought in the finals against Cornell, where it all came down to the middle weight's

fight after losing in light weight and winning in heavy. Both fighters were tired, and so the match was an essentially offensive battle that ended 18-13 in Cornell's favor — not before Dan Stallworth put some amazing flying side kicks into the match.

Similarly, the Women's A1 team (Shan He G, Michelle Chen and Kristina Lozoya) also faced Cornell on the finals, where it ended with a very tactical match with triple overtime for Kristina Lozoya. Unfortunately, her adversary prevailed and so the silver went for MIT.

Overall, the tournaments were a very fun and rewarding experience with many accomplishments. However, the best part is that there is always room for improvement, and the team knows that training hard will pay off in this year's tournaments and championships.



Women's Volleyball beat Bates College Friday night 3-0. They went on to finish fourth at the MIT Invitational last weekend, besting Tufts University and Colby College.