



MIT 150
in review
page 22

MIT's
Oldest and Largest
Newspaper



WEATHER, p. 2

FRI: 74°F | 52°F
Sunny
 SAT: 71°F | 55°F
Mostly sunny
 SUN: 71°F | 58°F
Thunder storms

Volume 131, Number 27

tech.mit.edu

Friday, June 3, 2011



Danielle A. Hinton G, PhD candidate in the Department of Electrical Engineering and Computer Science, is hooded by Chancellor W. Eric L. Grimson PhD '80 and interim department head Srinu Devadas in Rockwell Cage midday Thursday.

JESSICA LIU—THE TECH

Burns to give Commencement address

1,500 graduate students and 1,000 undergrads collect their degrees

By Evan Moore
STAFF REPORTER

Today, at the end of MIT's 150th anniversary celebrations, the Institute holds its 145th commencement ceremony. MIT will be awarding degrees to 983 undergraduates and 1,471 graduate students. Collectively, 1,161 bachelor's degrees, 1,547 master's degrees, and 609

doctoral degrees were awarded by MIT, according to Registrar Mary Callahan. The soon-to-be graduates will be taking their degrees far and wide. Forty-nine percent of bachelor's and 78 percent of master's recipients will be entering the workforce all over the world, with the most popular international destinations being China, Japan, and the U.K. Of

those receiving bachelor's degrees and entering the workforce, 17.6 percent will head to the consulting industry. A survey administered by the MIT Career Development Center reported that graduates will be working at world-renowned companies and organizations including Microsoft, Google, Facebook, JP Morgan, Procter and Gamble, the U.S. Army, and NASA.

Ursula M. Burns, chairman and chief executive officer of Xerox Corporation, will be giving the commencement address to the Class of 2011. Burns is currently listed as the 20th most powerful woman in the world according to *Forbes* magazine, and she has been a member of the MIT Corporation since 2008. Burns

Commencement, Page 3

Lewin gives final lecture

In emotional goodbye, physics prof. wows 26-100

By Ana Lyons
FEATURES EDITOR

With a crown of tousled grey hair on his head, a shroud of rainbow-stripes on his shoulders, and a large plastic fuchsia ring twisting around his left middle finger, legendary physics professor Walter H. G. Lewin set down his piece of dull yellow chalk for the last time, marking the completion of his final lecture at MIT. This was not something new for Lewin. Since 1972, the professor emeritus has stood in front of crowds of students, in this exact room (26-100), to deliver decades of lectures in MIT's Mechanics (8.01), Electricity and Magnetism (8.02), and Vibrations and Waves (8.03) courses. Like in many of his famous lectures, Lewin performed a dazzling array of demonstrations jammed into 47 minutes — including a giant pendulum, on which he rode and broke a sheet of glass; a demonstration of light diffraction via cigarette smoke (which Lewin lit and smoked himself); and the creation of a

Lewin, Page 18



Emily, always.
When Emily Obert, a senior, was paralyzed from the chest down, friends worried that the accident would dim her famous optimism. But nothing could bring Emily down.

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Help Desk relocates to E17

Help Desk will soon have a new home. The MIT IS&T Computing Help Desk is relocating to the first floor of Building E17 at 40 Ames St. Help Desk's N42 location will close at 1 p.m. today, and weekday walk-in hours from 9:15 a.m. to 4:45 p.m. will resume Monday in E17. Additional customer service operations are moving to the sixth and seventh floors of E19.

The move is triggered by the development of Novartis' new campus on Massachusetts Avenue between Albany and Windsor Streets, which will include IS&T's N42 site.

Christine Fitzgerald, manager of strategic communications for IS&T, described the new location — across the street from

Help desk, Page 3

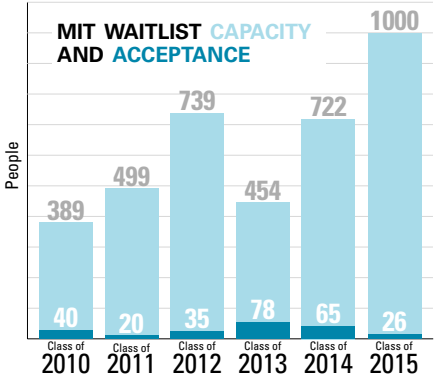
26 admitted from waitlist

With 65% yield, less need for waitlist admits

By Michelle E. Szucs
CONTRIBUTING EDITOR

Despite a significant increase in the number of students given a spot on this year's waitlist, fewer undergraduates were admitted off the list due to a high admissions yield — 65 percent of admitted students accepted offers to enroll. About 1000 applicants for the Class of 2015 were waitlisted, compared to 722 students for

Waitlist, Page 14



LETTERS TO THE GRADUATES

Important voices from across the Institute give farewell messages.

OPINION, p. 6

IS THE GOP SERIOUS?

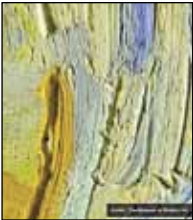
Why the Republicans' job creation plan is atrocious.

OPINION, p. 4

MIT150 HIT THE MARK

But what lessons can we take away from it?

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WANT VAN GOGH? JUST GOOGLE IT.

Google's high-resolution foray into the art world is cool, but is it really art?

ARTS, p. 10

AN ODE TO BASKETBALL

Track the Heat's journey to the NBA finals. In verse.

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Senior gift to support undergraduate financial aid

Boasting a record 76 percent participation rate, Doug Bailey '72 contributes \$30,000

Commencement, from Page 1

earned bachelor's and master's degrees in mechanical engineering and is the first African-American female CEO of a Fortune 500 company. She works closely with the U.S. government to improve science and math education in public schools.

2011 Class Council President Anshul Bhagi '11 praised the selection of Burns as MIT's commencement speaker. "I think she was selected as

INSIDE
For photos of MIT150 events, see page 22.

a speaker because she is a very hard-working woman ... she's gone through a lot of hardships, much like a lot of students at MIT. I think it connects

very well," he said. Today's commencement is the culmination of MIT's semester-long sesquicentennial celebration. Since January, MIT has held a series of events to mark 150 years since the Institute's founding in 1861, including an open house, a "Next Century Convocation," several symposia, and a science, technology, and art festival.

Schedule for Commencement

The doors to Killian Court will open to ticket holders at 7:30 a.m., and the ceremony will start with a procession from the Johnson Athletic Center at 9:45. In preparation

for the arrival of the procession, entrances to Killian will be closed off from 9:45 to 10:15.

The MIT class of 1961 will be joining the graduates, faculty, and members of the MIT Corporation in the procession. John S. Reed '61 will kick off the commencement ceremony with opening remarks. Following Reed, Institute Chaplain Robert M. Randolph will call upon the new graduates for the Invocation.

Burns will then give her commencement speech. After the speech, Graduate Student Council President Ulric J. Ferner G and Bhagi will speak on behalf of the class. Finally, MIT President Susan J. Hockfield will give a charge to the graduates, who will then receive their degrees. MIT Alumni Association President Anne Street '69 will close by welcoming the graduates into the Alumni Association. The ceremony recession will begin at 1 p.m.

Seniors reflect on 4 years at MIT

With commencement imminent, seniors have been reflecting on their past four years at the Institute. A common thread among them is the friendships forged during their time here.

"I think I can say with a lot of certainty that looking back, a lot of students will be fond of people that they met or the places they became so used to," Bhagi said. "These things we all

take for granted, the friendships and places we've experienced. I think that's what I'm going to miss the most about MIT, more so than the classes I took."

Brian L. Ross '11, an undergraduate who will be receiving his degree in biological engineering, said that he valued all of the group work that was encouraged at MIT. "I felt like a lot of the work I did at MIT was done with my peers ... I liked working together and having fun." He is looking forward to more flexibility in his schedule and more spacious living quarters in the future.

While an MIT degree is important, students are also aware of how much an MIT experience will benefit them in the future. Mathematics major Brayden A. Ware '11 said, "I think an MIT degree is like a degree at every other place except the group of students here work so much harder and push themselves so much faster that you are encouraged to do that yourself as well. You pick up those good habits."

Bhagi agrees with that sentiment.

for financial aid at MIT" as the reason for focusing on scholarships. According to Senior Gift Committee chair Samantha D. Marquart '11, the scholarship is not limited to a particular type of student; any aid-qualifying student will have access to it.

The campaign achieved a record 76 percent participation rate, raising over \$15,000. Seven hundred thirty four gifts were made in total, with an average gift of \$20.

MIT alumnus Douglas G. Bailey '72 challenged the seniors this year to reach 75 percent participation; since this goal was achieved, he agreed to donate an additional \$30,000.

"The Senior Gift is a way that students are able to say 'thank you' to MIT for everything they have received over the past four years," Marquart said. She hopes that the Class of 2011 will continue to donate to MIT as alumni.

For additional information about the commencement schedule, visit <http://web.mit.edu/commencement/2011/>.

IN SHORT

MIT Professor Jaime Peraire was recently picked to serve as department head for Aeronautics and Astronautics. The new appointment will be effective starting July 1.

The SafeRide summer schedule starts this Saturday. Find the new schedule at http://web.mit.edu/facilities/transportation/shuttles/schedules/Saferide_holiday-2011.pdf.

The Tech is now publishing on its once-a-month summer schedule. We will be publishing again on June 10, July 6, and August 3. Have a great summer!

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

Help desk, from Page 1

the Building 68 and next to the Media Lab — as a "new, refreshed space."

Barbara J. Goguen, associate director of customer support at IS&T, said in an email to *The Tech* that the move places the Help Desk in a more convenient location, accessible via MIT's underground tunnel system.

All services previously offered at the old N42 location will continue at the new locations. Building E17 will serve primarily as a base for walk-in services like troubleshooting, hardware and software repairs, and the demonstration center. Building E19 will house the Help Desk call center — which can be reached at 617-253-1101 — and usability and accessibility services. Many services offered by IS&T are free for the MIT community, but more complex fixes require a fee for labor and necessary parts.

Goguen feels that the relocation will benefit IS&T and the community, saying, "We are excited about this move not only because we will be moving into newly renovated, well-designed space (thanks to Facilities), but also because it will open up new opportunities for us to become more closely engaged with our customers."

E17 will also include a new learning center available to both IS&T and other members of the MIT community. The learning center will feature standard audio-visual equipment, IPTV (internet television), and updated video-conferencing technology.

The Help Desk can be reached by email at helpdesk@mit.edu. A number of self-help guides are also available at <http://ist.mit.edu/support> for after-hours problems.

—Michelle E. Szucs

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Solution to Crossword II

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

Solution to Sudoku I

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

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Living with Alzheimer's

Tearing relationships apart, the disease is truly tragic in its scope and effects

By Andy Liang
STAFF COLUMNIST

"When I was younger I could remember anything, whether it happened or not, but I am getting old, and soon I shall remember only the latter."
—Mark Twain

I'd like to share with you a story about Jan Chorlton. I think her struggle with Alzheimer's disease is representative of what many affected Americans experience. I want to raise awareness of this disease because having Alzheimer's makes many people scared and quiet. Only with early diagnosis and treatment can the best care be ensured for those affected.

Jan Chorlton, 61, is currently living in an assisted-living facility. She has Alzheimer's disease, which causes memory impairment and slows decision making. Every day her condition worsens and her memories continue to fade. Her disease affects 5.4 million Americans; of those, 5.2 million are age 65 and older. A younger-onset form of Alzheimer's affects people under 65. Alzheimer's disease is the sixth leading cause of death in the U.S., and there is currently no cure. Alzheimer's takes heavy tolls on patients' families and friends, as they are forced to watch the disease rob their loved ones of their memories and their lives.

Jan was once a CBS reporter. In charge of *CBS Sunday Morning*, Jan would greet

her audience every Sunday with a vivacious smile and a dose of news. Her focus was unshakable, her wit refreshing, and her spirit indefatigable. But starting at 40, Jan started having memory lapses. At age 55, Jan was diagnosed with Alzheimer's. In a recent interview, CBS reporter Barry Peterson sat down with Jan and her caregiver to see how she has changed. Sadly, it appears that Jan had lost herself completely to the disease.

Often Alzheimer's patients startle themselves by forgetting certain facts. This forgetfulness frightens many patients. Losing the ability to remember is losing the most basic but vital human function. Without it, we go back to being children, unlearning what life has taught us.

Her caretaker Judi Pring recalls, “I will go to get her for lunch and she will be talking quite animatedly sometimes. And I will go in and she’s talking to the mirror. She’s very concerned about whether the person in the mirror is going to come with us to lunch. She will say, ‘What about her?’ And I’ll say, ‘Just you and I, we’re gonna go sit and have lunch together.’ And she’ll say, ‘Oh, okay.’ And she always makes sure she says goodbye to the person in the mirror.”

Jan has lost her journalistic wit, but she still has her vivacious smile. She greeted

and hugged Peterson warmly and told teatime stories fondly. But she stumbled very often when recalling memories — she would pause but then continue, dismissing her folly with a laugh. The conversation would continue like nothing had happened.

Often Alzheimer's patients startle themselves by forgetting certain facts, like where they're driving to or which number to dial to call a friend. This forgetfulness frightens many patients, especially those

not yet diagnosed. Losing the ability to remember is losing the most basic but vital human function. Without it, we go back to being children, unlearning what life has taught us. And like children, we are scared by what we do not know. Alzheimer's patients, when corrected, are confronted with the reality of their conditions. They get distressed, their palms may sweat, and they may even break down. So Judy and Barry did not correct Jan when she stumbled.

Barry Peterson had chosen to conduct

the interview for a special reason. Midway through the interview, he reveals to us that Jan is, in fact, his wife. What follows is truly heartbreaking: He asks her about her memories with her husband. She says, "I know that he will always be in my life." She speaks of her husband in third person, not realizing that the man she married is in front of her, with tears in his eyes. Alzheimer's has erased her recollection of Barry and her marriage. Further along in the interview, Barry asks, "What's his name?" Jan responds, "Mr. ... Mr. Happy." She stumbles. But then she laughs and flashes her vivacious smile. Barry's expression is pained but hidden.

Concluding the interview, he hugged her. For a long while in the embrace, he mourned for what he had lost: his wife. Seeing Alzheimer's patients losing memories of their family and friends is heart wrenching. Families and friends can only watch as their loved ones slip further away from them.

But Barry will always go back to see his wife. And he continues to stay strong for her, just as millions of families do for their loved ones affected by Alzheimer's. And those without families will never be alone — the Alzheimer's Association has established local chapters that offer support groups all over the U.S. and helplines for care consultation. Living with Alzheimer's is hard, but life can be better by having those who can help.

Picture of a real leader

For peace, Palestinian leaders must take Israel's outreached hand

By Rachel Bandler
STAFF COLUMNIST

Last week Israeli Prime Minister Benjamin Netanyahu '75 addressed a joint session of Congress, almost a week after President Obama delivered a major policy speech on the Middle East to the U.S. State Department. Both men outlined bold and unprecedented plans for ensuring security and peace in the region and deserve commendation for their strong support of a sincere and lasting Israeli-Palestinian peace. However, Palestinian refusal to accept Israel as the Jewish state, Fatah's reconciliation with Hamas, and Palestinian Authority President Mahmoud Abbas' rejection of direct negotiations with Israel pose serious threats to the peace process.

After a warm welcome, Netanyahu outlined a plan for a two-state solution in his speech to Congress. The plan aims to establish a secure Israel as a Jewish state alongside an autonomous and demilitarized Palestinian state. This arrangement would require Israel to give away parts of what it considers the Jewish ancestral homeland to guarantee that the Palestinians receive a viable, sovereign state.

Netanyahu's offer demonstrates that if the Palestinians are sincerely committed to statehood, their dream can be achieved by grasping Israel's outstretched hand. However, if the Israelis are going to make "painful concessions," the same must be expected

from the Palestinians; both sides need to genuinely compromise for a true end to the conflict.

Unfortunately, there has yet to be an Israeli-Palestinian peace because the Palestinian leaders utterly refuse to accept Israel as the Jewish state. They insist instead on a right of return condition that would flood Israel with millions of Palestinians and demographically destroy the Jewish majority in Israel. This proposition is unacceptable because a two-state solution means the existence of a Jewish state alongside a Palestinian state, not the destruction of one at the expense of the other.

If the Israelis are going to make 'painful concessions,' the same must be expected from the Palestinians.

Thankfully, both President Obama and Prime Minister Netanyahu have firmly stressed the importance of preserving Israel as the Jewish homeland, as it has been for the past 3,000 years. The Palestinians need to stop insisting on a right of return to Israel, especially as a negotiating precondition; a peace contingent on a right of return will never materialize. Mutual recognition is essential for a long-lasting peace, and

the global community should embrace this truth.

Moreover, just as a Palestinian right of return to Israel is not viable, neither is negotiation with the terrorist group Hamas. Fatah recently reconciled with Hamas under the premise of Palestinian unity, but this action will only delay the necessary negotiations with Israel. Just as it would be foolish for America to sit down at the negotiating table with al-Qaida, it is also futile for Israel to negotiate with a group determined to destroy it and whose charter explicitly says, "Israel will exist and will continue to exist until Islam will obliterate it, just as it obliterated others before it." The purpose of a Palestinian state should be ending the Palestinian refugee problem by creating a successful and independent country where Palestinians can thrive, not establishing another imminent threat on Israel's border under the thin veneer of statehood. Therefore, direct Israeli-Palestinian peace negotiations are needed with the peaceful elements of the Palestinian Authority — not Hamas.

Despite Israel's call for direct negotiations, Abbas refuses to return to the table: he dismissively cites preconditions that are not being met by Israel. As an alternative, he is pursuing a unilateral appearance at the United Nations to appeal for recognition of Palestinian statehood based on the 1967 borders. It is an attempt to globally pressure Israel and to essentially impose a peace resolution that would neglect Israel's

border security. It is clear that what Abbas is planning at the U.N. is merely a stunt and will not actually change the situation on the ground; peace is not something that can be imposed, forced, or mandated. Fortunately, President Obama stated that the U.S. would veto such a resolution and is encouraging European cohorts to do likewise.

It is clear that what Abbas is planning is merely a stunt; peace cannot be imposed, forced, or mandated.

Despite these challenges, it is not too late to achieve peace. Abbas can still terminate the reconciliation with Hamas and forgo an attempt at action by the United Nations. If Abbas wants serious peace and to genuinely galvanize emerging Palestinian nationalism, then he should toss aside his preconditions, accept Israel as the Jewish state, and come to the bargaining table. Give and take is an intrinsic part of the negotiation process, which means that concessions need to be made and that not every demand can be met. With this necessity internalized and understood, a practical agreement can be implemented on the ground and a real Israeli-Palestinian peace can be forged.

Despite their rhetoric, Republicans don't take jobs seriously

Jobs, from Page 4

Americans. As a benchmark for comparison, a married couple filing jointly with a taxable income of \$282,000 currently pays about 25 percent income tax. House Republicans' goal to cut taxes solely for the wealthiest Americans is abundantly clear.

House Republicans do not make plain exactly what they plan to do, except that they will be Creating American Jobs.

The third proposal — to pass free trade agreements with Colombia, Panama, and South Korea — has apparently been blocked by Democrats' posturing for three years. Well, one politician's posturing is another politician's attention to human

rights abuses in Colombia or the well-being of auto workers in America.

The fourth step is fostering entrepreneurship by reforming the U.S. patent system. This proposal has received broad bipartisan support and collaboration. The House Patent Reform Act of 2011 was passed in the House Judiciary Committee by a vote of 32-3 on April 14. In short, it is not a solely Republican solution as the document declares.

The next two opportunities for improvement are visa reform and the reauthorization of the FDA user fee programs, through which the FDA collects money from companies seeking drug or medical device approval in order to test said products. I don't have much to say about these proposals, mostly because they are hardly even proposals. House Republicans do not make plain exactly what they plan to do, but they do make it apparent that they will be Creating American Jobs. Indeed, I'm not sure what the purpose is of the page allotted to these two topics. I wonder whether

Eric Cantor and his ilk are hoping that if they repeat the phrases “job creation,” “job creators,” “create American jobs,” etc. — which they did 31 times in the 86-sentence document — they will ingrain in the reader a subconscious association between Republicans and job creation.

To suggest that we should prefer an economy in shambles over \$4-per-gallon gasoline is ridiculous.

Now, what do House Republicans have to say about energy? They first make it clear that the problem is rising energy costs and point out that, since President Obama took office, the price of a gallon of gas has doubled. This is a facile and erroneous observation and an obvious attempt to falsely pin blame to Obama. Gas prices fell dra-

Vrajesh Modi was the 2010-2011 president of the Undergraduate Association.

Institute Double Take



By Biyeun M. Buczyk
STAFF PHOTOGRAPHER

BIYEUN M. BUCZYK—THE TECH

A thick fog engulfs the Harvard Bridge on April 26, obscuring Boston from view. As a photographic element, fog is often used to evoke emotions of serenity or mystery. To get the most dramatic effects out of fog, try to capture both a clear, crisp foreground in addition to a fading background to give the photograph a sense of depth while providing a direction

for the viewer to follow. It's usually best to capture fog at dawn or dusk — luckily this is when most fog occurs — as there is still enough ambient lighting from street, car, and building lights to shine through the fog, adding beautiful, diffuse light sources while the rest of the landscape is still barely illuminated by the sun.

Aperture: f/2.8	Sensitivity: ISO 200
Exposure Time: 2.5 sec.	Effective Focal Length: 20 mm

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In the arena of human life the honors and rewards
fall to those who show their good qualities in action.
—Aristotle

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You've got a degree from MIT, but can you cook?

Fortunately, delicious and healthy (or not healthy) food is something even an MIT grad can make

Orange Glazed Chicken Salad

Orange Glazed Chicken Salad

Have a craving for Chipotle but just don't have the energy to make the trip out? Here's a recipe that is both healthy and delicious. Easy to make, this salad can be made vegetarian by taking out the chicken and using tofu. Dive in and enjoy this refreshing and crunchy dish.

Ingredients:

- Head of romaine
Chicken breast (1/2 per person)
Olive oil
1 orange
3 tablespoons brown sugar
2 tablespoons butter
1 avocado
1 tomato
1/4 cup jack cheese
1/4 cup cheddar cheese

Directions:

Directions:
Put a small amount of olive oil in skillet and heat to medium-high. Cut chicken into bite size pieces and put into pan. After chicken is almost finished cooking, add butter, brown sugar, and the juice from one orange and stir. The sauce will start to caramelize (be patient) and coat the chicken. Put chicken on top of salad (mix romaine lettuce, tomatoes, cheddar cheese, jack cheese, avocado, etc.) and serve with your favorite dressing. (Recipe from Open Source Food user chicky7017.)



This Greek bruschetta recipe is healthy, easy, and full of Mediterranean flavors.

Greek Bruschetta

Opa! Finally, an easy-to-make Greek dish that will leave your stomach satiated and mouth watering for more. With a strong tomato and olive base, you will be transported to the iridescent beaches and rich culture of Greece. Slip in a DVD of *My Big Fat Greek Wedding*, get into a comfortable pair of PJs (or wear a toga if you so choose), and be prepared for a night of all-out Greek entertainment!

Ingredients:

- Handful of grape tomatoes, diced
- Handful of kalamata olives, diced
- 1 tablespoon toasted pine nuts
- 1 tablespoon fresh parsley, chopped
- 2 tablespoon feta cheese
- Dash of oregano
- Sea salt and freshly cracked pepper, to taste
- French baguette, sliced
- 1 clove of garlic

Directions:

Preheat the oven to 350°F. Combine the tomatoes, kalamata olives, pine nuts, parsley, feta cheese, oregano, sea salt, and freshly cracked pepper to taste. Mix the ingredients until well combined. Place the baguette slices on a baking sheet and place in the oven. Bake for 3–4 minutes until slightly crisp. Remove the bread from the oven and rub the garlic clove over each slice. Top with the tomato mixture and eat immediately. (Used with permission from Pam Nelson from *For the Love of Cooking*.)



This is not just any salad – it's an orange glazed chicken salad.

Simple Chocolate and Strawberry Cake Recipe

I am a big fan of chocolate and an even bigger fan of strawberries. This easy recipe will make you look like a culinary master in front of your friends while also ensuring that a lot of extra energy doesn't need to be expended. Just be sure not to eat all of the finished product before your guests arrive!

Ingredients:

- 3/4 cup margarine
2/3 cup sugar
3 eggs
1 and 1/2 cups self-rising flour
1 and 1/2 tablespoons cocoa powder
- Topping:*
1 and 1/2 cups icing sugar
1/3 cup butter or margarine
1 teaspoon vanilla essence
Strawberries

Directions:

Directions:
Preheat your oven to 350°F. Cream together the margarine and the sugar. Beat and then add the eggs. Sift the flour and cocoa powder together and then add it to the mixture. Pour into a baking tin and bake for 25 minutes. Leave to cool, and then mix together the topping ingredients. Spread thickly over the cake and then decorate with strawberries. (Recipe from Open Source Food user Vanity.)



Try making this simple chocolate and strawberry cake. Even for novice bakers, it's easy to put together.

ALBUM REVIEW

Lost with a *Valleyheart*

She Wants Revenge's newest album waits for a burst of originality that never comes

By Saul Glasman

By all rights, Los Angeles duo She Wants Revenge should trade in climaxes. The narratives of most of the songs on *Valleyheart* point dutifully at an acrobatic guitar solo or a cathartic spray of lovelorn bellowing that simply doesn't arrive. The subwoofers are wired, but the bass never drops; the opener "Take The World" is five minutes spent absent-mindedly waiting for a gear change to kick. This furrow in their otherwise confident songwriting is baffling, but it makes the album sound like a series of promises breaking.

SWR's genealogy is uncomplicated. Vocalist Justin Warfield's ceremonious, Curtis-esque drawl, together with some familiar harmonic devices, recalls, of course, Joy Division or The Cure, but also the post-punk revival movement of the last decade, or perhaps a more rhythmic and less ambitious British Sea Power. There's a reverberating twilight edge to the instrumentation, bringing a redolence of early gothic rock-

ers Sisters Of Mercy.

SWR audibly quivers in the shadows cast by these other bands and their legacies, and the regal pace of the songs undermines their attempt to be a party-starter. The only lively tempo on the menu is "Suck It Up," which compensates with its inexcusable and unmodulating six-minute length. Some of the lyrical matter slings itself just short of self-parody with its slack conventionality ("Your eyes, they tell me everything / The first, the last, and in between / That's everything") while some is a facile, tongue-chewing sort of cryptic ("It cuts so deep, and touches your insides / Shaken like leaves, afraid it's the wrong time"). None are delivered with fervor. Coupled with the lacquerous production, this generates a curious detachment. One fantasizes that the maneuvers of a live show — imagine Warfield onstage wearing sunglasses and an anthemic demeanor, aiming the mic at the audience and coolly receiving their chanted reply — would also feel somewhat sparkless.

Only a few tracks keep *Valleyheart* from sounding like a forgotten by-product of the '80s, stalled by the roadside while the more distinctive strode on. The album finds its legs and its voice with the flustered, creaky industrial blues of "Up In Flames" ("The canyons scream / And the alleys bleed at night"). "Little Stars," which sports a tint of *Black Holes*-era Muse, is the only other track whose chord progressions bend from conciliatory major-key fairy tales into something stickier, and it suits.

Meanwhile, "Not Just A Girl" brings the full balladic arsenal out from behind the counter and makes most of the rest of the album sound skimpy. Vocal harmonies intertwine and disperse, passionate staccato strings mark time, and epic drum fills usher in elephantine choruses. A band capable of executing stirring arena pop this professionally should have better things to do than bore us with the iron-legged likes of the emotionless "Kiss Me" and the anodyne "Reasons."

★★★★★

Valleyheart

She Wants Revenge

Released May 23, 2011

Five Seven Music

She Wants Revenge want too many things. They want to get you dancing, but their own feet are planted like trees. They want to make contemporary pop-rock, but they fashion a cloak of introversion from their influences. They want to be trusted, but they keep the listener at arm's length. A handful of graceful moments are weighed down by the vaporous ballast that the album's heart pumps. For these reasons, and despite its earnest efforts to steer clear of the middle of the road, *Valleyheart* totters into the miasma of dad-rock.

ARCHITECTURE@MIT

MIT welcomes 21st century design

Archiprix International brings the world's best architecture to campus

By Natthida Wiwatwicha

STAFF WRITER

Archiprix International is an exhibition of the best graduation projects from top architecture design programs around the world. The biennial event was founded in 2001 in Rotterdam, Netherlands, as an attempt to create a global context for architecture education, and Archiprix now has 1527 participating universities. This year, MIT's School of Architecture and Planning is hosting Archiprix International 2011, from the end of May to beginning of June.

In the spring of 2010, architecture and urban design graduate students with the best final thesis projects from participating universities were selected by their institution to submit their work to Archiprix. The students were also invited to take part in 2011 Archiprix program — comprised of workshops led by MIT SA&P faculty and international designers under the theme of the redesign of Manhattan. The program also features panel discussions and the presentations of the student projects. The 304 participating entries are exhibited on the fourth floor of Building 7 and will last through the first week of June. The projects encompass various focuses and disciplines, including educational or recreational space, suburb, city, metropole, post-modern design, ecological design, and adaptive reuse.

Currently, a number of selected projects are marked as Participant Favorite — voted on by Archiprix participants — and Nominated — selected by an international jury — and will be shown to the public. The Archiprix award ceremony will take place in New York City on June 9 at the Guggenheim Museum.

Here's some of the many proposals that caught my eye (in order of the intensity of captivation):

**ZIPZIP by Rodrigo García
González**

Madrid, Spain

ZIPZIP is a patent-pending deployable system that creates high-rise structures. The structures can be manufactured, assembled and dismantled efficiently. It can be expanded in both vertical and horizontal direction, allowing flexibility in form and function. The structure becomes an eleven-story tower when expanded and is reduced 78 percent in surface area and 97 percent in volume when folded.

Architecture from Shade by Kensuke Ohtsuka

Kanagawa, Japan

This design uses urban shade as axes for the city blocks in Ginza district, Tokyo. Different ranges of darkness carve up space into regions without physical dividers. At the same time, its ubiquity allows the interconnected shade to serve as connectors to unify the existing buildings and new buildings of the growing district.

XYZ Structure by Maciej Siuda

Wroclaw, Poland

This concept provides various independent functions in one building. It's beneficial to crowded cities because it offers an alternative to managing urban space — no longer in a two dimensional plane, but three. The structure allows a small plot of land to facilitate different types of public space — from restaurants and athletic facilities to pavement, parks, and playgrounds, exemplarily filling its role to maximize the potential of land for public use.

Spaces, Poetics, and Voids **by Simone Pizzagalli**

Delft, Netherlands

This is a design of a prison to be situated in the outskirts of London. Through an interplay of the presence and absence of material emerged a rhythmic, poignant composition, giving rise to meaningful moments in both local (the building itself) and global (as part of the city) contexts. Surreal elements are embedded within reality as the voids in the structure serve as a blank slate with potential to be filled with imagination, contemplation, resolution, or change. A prison de-familiarizes passers-by, even though a prison is only the crystallization of the familiar disorder of a place.

Students from all majors are encouraged to take a peek (or a stare) if interested in being surprised or stumped, or perhaps intrigued or inspired. Kick off your summer with refreshing mental events as you redefine the meaning of architecture in the 21st century, or simply check out what is going on in another field. To complete its role as a good host, MIT must remember to take advantage of these visitors (the exhibitions, perhaps not the graduate students): learn from them, and make them matter.



NATTHIDA WIWATWICHA—THE TECH

As part of Archiprix International, 304 graduation thesis projects by graduate students in architecture, urban design, and landscape architecture from around the world are on display on the fourth floor of Building 7. In 1865, MIT became the first university to establish an architecture program in the U.S. and facilitated the development of the Modernist movement in this country.

Emily, always.

Her friends worried that the accident would change her. But Emily will always remain Emily.

By Jeff Guo
CONTRIBUTING EDITOR
PHOTOGRAPHY BY SAM RANGE



Emily Obert '11 fell on a clear warm day almost exactly like today. The kind of day when, in her faint Virginia twang, she might order you to stop sitting around and go outside. So they did. Emily and the Burton Third Bombers, that merry band of orange pranksters, held a barbecue at a friend's house in Cambridgeport on Sept. 4, 2010. It was the Saturday before classes started, and the freshmen were still reeling from floor rush. Some were still incredulous at their fortune, to have been taken in by this rollicking, rag-tag family — a family held together, in large part, by Emily. She is the one who gets the party started, the one who is not afraid to bust out dancing when everyone else is too shy or self-conscious. The one whose grin is too big for her face. But she is also the one that people turn to when there's trouble, the one who can exert a calming force on rowdy freshmen. The one that the Burton Conner housemasters trust.

'She looked so angelic. At some point I kind of just looked at her, and the enormity of it hit me.'

To get to the apartment, which was on the second story, you climbed a set of gray wooden stairs. Floor chair Rishi Dixit '11 remembers these stairs because he walked into them that afternoon and smacked his head. Emily had guffawed at this. The stairs led to a balcony that overlooked the lawn where, that afternoon, the Bombers were grilling hamburgers, sausages, hot dogs, veggie burgers — and, of course, bacon. (It's a Bomber thing.) They had finished most of the grilling and now some were lounging upstairs, watching TV. Dixit was there. His girlfriend, Alexandra Hall, was sitting on a couch telling a freshman that he shouldn't leave for a fraternity, since the Bombers were far superior. Hall remembers Emily walking through, maybe 20 minutes before the fall. Emily touched her on her head and then gave her a warm hug. When the balcony collapsed and Emily fell, there were no screams, no lurid sound effects. To hear some people describe it, there was no sound at all. Someone had hit the mute button on the world. There was just Emily — lying there facedown in the mulch on that very sunny, Goldilocks day, as the smoky smell of sausages and hamburgers continued to waft from the grill. There she was, her hips and long legs slung to the right at that odd angle, as if her torso were made of rubber. There she was, bits of dirt and twig still sticking to her face, her eyes open and fully awake.

There she was, drawing a circle of friends and friends-to-be who waited for her spring back into place, to laugh and reassure them with that charm of hers that came so naturally. But something had snapped. She couldn't feel her feet. She couldn't feel her legs. She tried to untangle herself. She couldn't. And then she did a very un-Emily-like thing. In a near-whisper, she began to repeat: "I don't want to be paralyzed. I don't want to be paralyzed." She said it five, maybe six times, in a small but steady voice that only the people kneeling next to her could hear. In the five minutes it took for the ambulance to arrive, friends stroked her sandy brown hair and murmured comforting words. It's going to be alright, you're going to be fine. Yes, she finally decided. She would be.

It was a miserable, rainy day when Cathy Poff got the call. Poff grew up in Willis, V.A., and you can hear traces of her gentle accent in her daughter's voice, especially in the way that both linger melodically on words like "while" and "well." In Physics class one day at the University of Virginia, Poff told herself that she would sit next to the cutest boy in the lecture hall. That was how she met Jim Obert. They became lab partners, then college sweethearts. Now they were celebrating their 25th anniversary at Niagara Falls. They had driven the seven hours from their home in Baltimore, where Poff is a physical therapist and Obert is an insurance underwriter. Earlier that afternoon they stopped on the American side to take pictures. But when they got on the Rainbow Bridge to the Canadian side, the rain was drenching everything and no cars were moving. Poff's phone rang first — but it was buried somewhere in the backseat and she was driving. Too much of a hassle. Then Obert's cell phone rang. After fumbling for a while, he missed the call too. By the time Poff's phone rang a second time, she knew this something was important. She told Obert to reach back and get her phone this time. It was an emergency room physician at Beth Israel Deaconess Medical Center. Emily had fallen and injured her spine, but her injuries were not life-threatening. The ER team was doing the workup, and could tell them more soon. Poff told the physician they were stuck in traffic in a downpour, and that they would call back as soon as they cleared the bridge and had a chance to pull over. This took 45 minutes because of the gridlock. Confined to the car, Poff wanted to run, to escape, to scream. When they finally called back, the physician told them flat out: Emily would be a paraplegic. Poff felt her mind running in place, retracing the same frantic thoughts. How could this have happened? It couldn't have happened, it felt so unreal. Yet just moments ago a physician had told them these terrible things like they were facts. But how could something like this hap-

pen to Emily — and what would her life be like now? Would it be bearable? Most of all, Poff wondered if this accident would dim the spirits of her sweet, kind, open, generous, dedicated, determined daughter. Would Emily be the same Emily? Once when she was about eight years old, Emily told her mother: "You know how in the world there are two kinds of people — problem getters, and problem solvers?" "I was sent here to be a problem solver," the eight-year-old Emily said. Hundreds of miles away, Dixit was wondering the same thing. What would happen to the Emily they all loved? The Emily who adored sports and being out-



pen to Emily — and what would her life be like now? Would it be bearable? Most of all, Poff wondered if this accident would dim the spirits of her sweet, kind, open, generous, dedicated, determined daughter. Would Emily be the same Emily? Once when she was about eight years old, Emily told her mother: "You know how in the world there are two kinds of people — problem getters, and problem solvers?" "I was sent here to be a problem solver," the eight-year-old Emily said. Hundreds of miles away, Dixit was wondering the same thing. What would happen to the Emily they all loved? The Emily who adored sports and being out-

The hospital put them up in a tiny windowless room with cots. But they couldn't sleep anyway. They were consumed with worry. "People kept saying, 'I hope you're taking care of yourself,'" Poff said. "I just wanted to scream. It's like, quit telling me that! I can't think about that right now. I remember Jim and I saying how food didn't taste like anything. It truly had no taste. At all. For at least a week or two. It was really weird." That day, the surgeons attached two 10-centimeter titanium bars to Emily's fractured spine using screws and hooks. The bars stabilized her back and would cause the vertebrae to fuse together to provide stiffer support.



The most intense pain Emily had ever felt came from the breathing tube they had put down her throat for the surgery. She remembers waking up and panicking, because she heard the nurse say they might leave it in for another two hours. (They didn't.) "I was telling [the nurse] afterward, 'When you said it was two more hours I didn't know what to do because it hurt so bad!' And [the nurse] said, 'Oh we wouldn't have left you *conscious* for that.'" The doctors also attached her to a breathing monitor that measured the rise and fall of her chest. But because of her broken ribs and broken back, her breaths were shallow. When she went into deep sleep, her breaths would become even shallower, fooling the device into thinking she had stopped breathing entirely. This would set off panicked klaxons at all hours of the night. She let the machine wake her up a couple times before finally ripping the sensor off her chest. "I'm breathing!" she told the machine. "Just leave me alone!" These are the kind of slightly wacky, slightly off-beat stories that Emily likes to tell about her two weeks at Beth Israel. But what the people around her re-

membered was her strength. The Burton Conner housemasters, Professor Roe Smith and Bronwyn Melquist, visited a couple days after the surgery. "We walked in the room, and her mother had just been brushing her hair, and so her hair was sort of fanned out over the pillow," Melquist said. "She looked so angelic. And at some point I kind of just looked at her, and the enormity of it hit me. And all that happened was my voice cracked ... and she looked up at me, and she says 'It's okay, I can still move my arms!'" For those first weeks, the Bombers' Graduate Resident Tutor, Charles Lin G, ferried visitors from Burton Conner three times a day. Emily's boyfriend of two years at the time, Daniel Hernandez-Stewart '07, was a constant companion, as was Hall. Toward the end of her stay at Beth Israel, David Randall, an associate dean at Student Support Services, asked Emily if there was anything she would like to communicate to her floor mates, the Bombers — many of whom still did not know the details of Emily's injury. Emily told Randall to relay two messages. First, that she was paralyzed and that it was a permanent injury. Her floor mates shouldn't get their hopes up for a recovery. Second, that she was the same person she always was. She had not changed. These messages, Lin says, gave everyone on the floor a sense of hope. "It was a real turning point," he said. At the meeting of assembled Bombers, Dean Randall added that Emily would certainly be returning to MIT some day to finish her degree. But nobody, except for perhaps Emily, could have guessed how just how quickly she would be back.

In mid-September, Emily moved to Spaulding Rehabilitation Hospital, a nondescript brick building near TD Garden where she would relearn the motions of daily life. Three days after the surgery to fuse her spine, therapists came to visit her at Beth Israel. They wanted her to put on her socks. It took her 45 minutes. As a physical therapist herself, she knew this was a big achievement. Poff said. But as a mother she couldn't help but feel a twinge. "It was hard to stand there and see what a hard task something like that now was," she said. Another early task was for Emily to roll onto her side. Because she can't use her abdominal muscles, Emily instead must rely on momentum, rocking herself up. Her physical therapist, Cara Leone Weisbach, demonstrated for me one recent afternoon. Lying on the floor on her back, Weisbach threw her arms and shoulders violently to her right, causing her whole body to turn over. "Is all this just to get out of bed?" I asked. Weisbach laughed. "This is just to get onto your side." At the time, Emily was getting nauseous in the mornings from her medica-

tion. Weisbach said it was common for the two of them to have morning physical therapy sessions when Emily would bring along a bucket to vomit in. But she would never ask to quit. She would vomit, put the smile back on her face, and move on. Poff rented an apartment in East Cambridge so that she could stay in the area to look after Emily. Shortly before Emily was discharged, her therapists at Spaulding arranged a home visit. They wanted to see if Emily could get from Spaulding to the apartment using the subway. Weisbach said Emily pushed herself the whole way. Not once did she complain or ask for help. "Not that I would have let her have any help," Weisbach said. "Oh my god," Emily said in a low, conspiratorial voice when I asked her about the home visit. "I thought I was going to die. Or kill Cara."

"But you didn't complain at all," I said.

I can never get upset for a long time anyway. You get upset, cry about it, and get over it.

"Yeah, probably not," she said. She likes to drag out her words sometimes to let you know that she's being goofy. "But I thought my arms were going to fall off. It's like at sports practice, right? Your coach tells you you're going to run three miles ... and you're like, 'Oh my god why is my coach making me run so far?' But you just do it and you try as hard as you can, and at the end you want to puke, but you just suck it up and drink water and 15 minutes later, you're fine." Emily spent about six weeks at Spaulding before she was discharged in early November — though she still has to attend physical therapy twice a week as an outpatient. She moved in with her mother. Life began to return to a rhythm. She started to make plans. She decided, first, that she would finish out her last semester and graduate. She also decided to apply to the Mechanical Engineering Master's program at MIT. And of course she would return to her other family, her beloved Burton Third. MIT had flat out rejected her request at first, since Burton Conner is an old dorm that wasn't built with wheelchair accessibility in mind. Instead, Emily was told to consider Baker, or Senior House. It took months of negotiating. Emily sent emails to the floor asking for their help. People gave up rooms and shuffled around so that she could have a place to move back to. She asked Weisbach to write a recommendation. Finally Emily was allowed to move back among her friends, as long as she signed a waiver. "It was a trauma I wish she hadn't

have had to go through," Poff said. "And a fight that I wish she hadn't have had to wage, but she did. She's always been a person who knows herself, who can figure out what she would like to achieve, and figure out a way to get there."

Emily moved back to Burton Third a couple days after the spring semester began. She had a full course load, and a thesis to write. She still had physical therapy at Spaulding twice a week. On top of all of that, just the simple every day things like going to the bathroom took longer. Because she cannot control her bladder, she needs to use a catheter to empty it, which takes about half an hour. "If you ask normal people how many hours do you spend a day peeing — not pooping, just peeing — I don't think most people would add that up in *hours*," she said. "You can get super awkward and embarrassed over it, but it's not anything I have control over," she shrugs. "So I got over that pretty quick." "I mean, sure, there are days you're crying because you're so tired and you're spending all your time just getting up and getting dressed and eating," she said. "You just take one step at a time. I can never stay upset for a long time anyway. You get upset, cry about it, and get over it. You have stuff to do." The accident has taught her to cherish her relationships and the people close to her. "There's a lot of other facets to your life than physical health," she said. "And even though the demands on my time for physical well-being are much, much greater, at some point, you know, it's like, 'I think I'm going to hang out with my friends, and screw [physical therapy] on Tuesday.'" At the end of April, the Bomber held their largest annual party, Dance 'Til You Drop. Emily was back to her usual groove, popping wheelies, throwing her hands up in the air, getting bystanders to stop standing and start dancing any way she can. "I don't even know how she manages not to throw herself out of her chair, to be honest," Hall says. "It's a good thing she has a seatbelt," Dixit adds. "Yeah, or she would be everywhere." Emily told me her favorite part was showing people how to really dance. "I feel like even though I'm paralyzed pretty far above my waist — I still move around more than half of MIT students. They just move their hips left, right, left right, and it's just like, 'No, come on!' It was so easy to get people to dance with me, and people were all smiling. It was super super fun."

By now, you should not be surprised to learn that Emily is graduating today, on time, with a degree in Mechanical Engineering. You should also not be surprised that she's been accepted to MIT's master's program, and has won a fellowship. (They haven't told her the name of it yet.) You should also not be surprised that she has a new boyfriend; that she's learning to drive this summer; that she will be living by herself next year. It's all as natural as the grin on her face.



Stone will step down as EVP and treasurer

Theresa M. Stone SM '76, MIT's executive vice president (EVP) and treasurer, announced on May 17 that she would step down from her position in the fall, which she has held since February 2007.

The EVP administers MIT's financial, capital, and operational resources. In an email to the MIT community, Susan J. Hockfield said that Stone "guided MIT's finances and operations with solid judgment and a steady hand during the most challenging economic climate in our lifetimes."

Stone told *The Tech* that she has enjoyed her time as EVP, but wanted "more flexibility" in her life. She will return to her committed volunteer status at MIT.

A replacement for Stone has not been announced yet, but Hockfield invited the MIT community to provide suggestions for candidates.

—Joanna Kao
and Ethan A. Solomon

Big waitlist, big yield
Schmill attributes success to CPW

Waitlist, from Page 1

the Class of 2014. Of the students who chose to remain on the waitlist this year, only 26 (3.6 percent) were admitted.

With the opening MIT's new dorm, Maseeh Hall, MIT Admissions increased the size of this year's acceptance pool and waitlist. According to a blog post by Associate Admissions Director Matthew L. McGann '00, the target size of the Class of 2015 was about 1,120 students, compared with 1,075 from the previous year. The number of admitted students also increased, up to 1,715 this year from 1,611 last year.

In an email to *The Tech*, Dean of Admissions Stuart Schmill '86 said that more students were put on the waitlist in order to guard against uncertainty over how many students would accept an offer of admission. "We felt that this year might be more unpredictable," Schmill said.

But the 65 percent yield — 1 percent higher than last year's yield — meant fewer students needed to be taken off the wait-

list. "Despite being disappointed that we were only able to take so few students from the waitlist, we were very pleased with the way the yield turned out," Schmill said.

Schmill attributes the yield increase to a successful Campus Preview Weekend, MIT's annual admitted student event. "Our surveys showed that students had a terrific experience (as always) and that the weekend really convinced a lot of students that MIT was the right fit for them," Schmill said. This year was the first time a computer algorithm was used to assign undergraduate hosts to visiting admitted students; previously, a team of admissions staff had spent several days making matches by hand.

Schmill said that waitlisted students are admitted through largely the same process that the admissions committee follows for regular admissions. However, waitlisted students have the opportunity to provide additional information about more recent achievements, letting the admissions committee see how these students developed over time.



COURTESY OF THE MIT INVESTMENT MANAGEMENT COMPANY

130 Brookline St. concept art. MITIMCo plans on converting the building for laboratory use and is actively marketing it to tenants.

Academic construction and renovation
(expected over next decade)

Maseeh Hall, W1 (in progress): Due for completion this August, W1's renovation will allow the former graduate dormitory to accommodate about 460 undergraduates and a new dining hall. Thanks to the renovations, MIT's undergraduate population will be restored to 4,500 over the course of several years.

Nano-Materials, Structures, and Systems (nMaSS) research facility (in planning): MIT has identified a need for a dedicated facility for faculty from across MIT who are involved in nanoscale research. A site currently home to an abandoned Polaroid building between Main, Albany, and Portland Streets is under evaluation.

Energy and Environment research (in planning): Hoping to bring researchers from the Department of Earth, Atmospheric, and Planetary Sciences, the MIT Energy Initiative, and the Department of Civil and Environmental Engineering together under one roof, MIT is evaluating a site at the corner of Vassar Street and Massachusetts Avenue. The site is currently occupied by a Bank of America kiosk and a parking lot.

Walker Memorial (in planning): Over the past year, MIT has been actively evaluating the feasibility of converting this building into a space for Music and Theater Arts. Walker Memorial is currently home to many student groups and is often used for event space. The Walker Memorial Assessment Team — a coalition of student, administration, and faculty representatives — has been considering alternative spaces for student groups currently situated in Walker.

Building E52 (in planning): With the completion of E62 and the relocation of Sloan School faculty there, E52 is being considered for a full renovation in order to accommodate the Department of Economics, a conference center, and Sloan programs.

Building E60 (in progress): Renovations to this building that houses Sloan administrative offices are scheduled for completion by September of this year.

Building 2 (in planning): Housing the Department of Mathematics and some of the Department of Chemistry, renovations in sections of Building 2 are under consideration.

Massachusetts Green High Performance Computing Center (in progress): MIT, UMass, Boston University, Northeastern University, Harvard University, and the Commonwealth of Massachusetts are collaborating to build a research computing data center in Holyoke, Mass. The center will be used by member institutions for individual and collaborative research purposes.

MITIMCo real estate development
(expected over next decade)

640 Memorial Drive (renovation in progress): MIT has executed a lease with Sanofi-aventis, an international pharmaceutical company, to move their oncology headquarters to half of this building, located past the far western edge of campus. Sanofi-Aventis will make the move this fall.

130 Brookline Street (restoration design plans completed, actively marketing to tenants): MITIMCo plans on converting this industrial building into 45,000 square feet of laboratory space. MITIMCo's Steven C. Marsh says he would like to see the conversion begin "as soon as possible."

300 Massachusetts Ave. (zoning petition submitted to Cambridge City Council): Forest City Boston will develop the property north of Random Hall — part of the block between Blanche and Landsdowne Streets — into an office and laboratory facility with ground-floor retail space.

Massachusetts Ave. Novartis Campus (planning in progress, zoning petition submitted, key architect selected): Novartis Institutes for Biomedical Research will construct a new east campus — across the street from their existing one — designed in part by Vietnam War Memorial architect Maya Lin.

610 Main Street (actively marketing to tenants): 418,000 square feet of office and laboratory space will be built on what is now a parking lot. "I would really like to see [this] get underway this year," said Marsh.

Kendall Square Development (zoning petition submitted): MIT is seeking to redevelop a substantial portion of the Kendall Square area on the eastern side of campus. MIT has proposed 880,000 square feet of new commercial space, 800,000 sq. ft. of academic space, 120,000 sq. ft. of residential space, and 100,000 sq. ft. of retail space. Marsh says the Kendall Square initiative is aimed at making the area surrounding MIT more attractive to high-tech, research-oriented companies.

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Solution to Techdoku II

from page 21

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

Solution to Sudoku II

from page 21

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

Solution to Techdoku I

from page 17

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

Solution to Crossword I

from page 16

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

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The Fannie and John Hertz Foundation is pleased to announce

Jesse Engreitz, Robin Deits and Nevada Sanchez have received the **Hertz Foundation Graduate Fellowship Award for 2011.**

Mr. Engreitz, Mr. Deits, and Mr. Sanchez are three of 15 exceptionally talented and creative young innovators to receive a **Graduate Fellowship Award of up to \$250,000** in the Applied Physical Sciences or Engineering.

Learn More or Apply for a 2012 Hertz Foundation Fellowship www.HertzFoundation.org

Decade aims to see \$1.5B in renovation, construction

First phase of MIT 2030 financed by \$750 million bond sale and ‘ambitious’ fundraising plan



INFOGRAPHIC BY AISLYN SCHALCK

MIT is hoping to complete a number of new construction and renovation projects within the next 10 years, but many MIT 2030 projects reflected here are far from finalized.

MIT 2030, from Page 1

The MIT 2030 framework has identified new construction and development that MIT feels can reasonably be completed within the next decade (see map and sidebar), according to Stone. Two new research facilities — one for energy and the environment and another for nanoscale research — are being considered at sites close to central campus.

MIT also hopes to complete a number of renovation and capital renewal projects in dormitories and older academic buildings, including Buildings 41–43, Building 2, Walker Memorial, and E52, among several others. Capital renewal refers to systems, infrastructure, roofs, elevators, plazas, interior finishes, and other maintenance, according to the MIT 2030 website.

An extended scope of capital renewal and campus renovation is expected beyond the next decade,

including Kresge Auditorium, Burton Conner, MacGregor, and the Student Center, among others.

Stone noted, however, that “things can change,” and that MIT 2030 is the Institute’s current expectation for feasible campus renewal and expansion.

Stone said that the first decade of new academic development is expected to cost \$1.5 billion — \$500 million for new construction (energy/environment and nanoscale research facilities) and \$1 billion for campus renovation and capital renewal. To finance half of that, MIT recently sold \$750 million in 100-year taxable bonds, which yield 5.623 percent interest. The timing was good for MIT, said Stone, because of “favorable market conditions” and historically low interest rates.

People or organizations who purchased these bonds have effectively loaned MIT money. In return, the Institute promises to pay

back the loan, plus interest, within 100 years. Stone said the investors tend to be “very high-quality” institutions, including large insurance companies and money managers in the United States and Europe.

Regarding the caliber of the investors, Stone said the bond sale was a “great vote of confidence” in MIT.

MIT hopes to make up the remaining \$750 million through fundraising, aspirations for which Stone calls “ambitious.”

“The realization of the types of projects envisioned in the plan will be dependent on the support and generosity of friends of MIT,” she added.

Separate from new academic construction and renovation — but still under the MIT 2030 framework — is real estate development projects by the MIT Investment Management Company (MITIMCo). Real estate development, which usually involves the construction of new lab, office,

and retail space on MIT-owned property in Cambridge, will be funded separately from the MIT 2030 academic construction and renovation.

MIT 2030 is not, however, a push for new real estate. All of the MIT-IMCo development concepts outlined on the 2030 website are for property MIT already owns.

Stone said that much of the 2030 framework has so far been driven by input from MIT’s academic leadership. Stone says input from “broad sectors of the community” will continue to be solicited throughout the process.

MIT welcomes ideas on MIT 2030 at mit2030ideas@mit.edu.



COURTESY OF THE MIT INVESTMENT MANAGEMENT COMPANY

610 Main Street concept art. The laboratory/office building will replace a surface lot.



Congratulations to Our Incoming Hires

Hway Chen

Global Capital Markets, New York

Rumela Das

Fixed Income, New York

Jacob Dweck

Equity Research, New York

Naisi Gao

Global Capital Markets, New York

Robert Habib

Fixed Income Research, New York

Syndie Kim

Investment Banking, New York

Brienne Kugler

Equity Research, New York

Soumi Mitra

Global Capital Markets, New York

Daniel Piemont

Fixed Income, New York

Emma Rosen

Global Capital Markets, New York

Adriana Vazquez Ortiz

Technology, New York

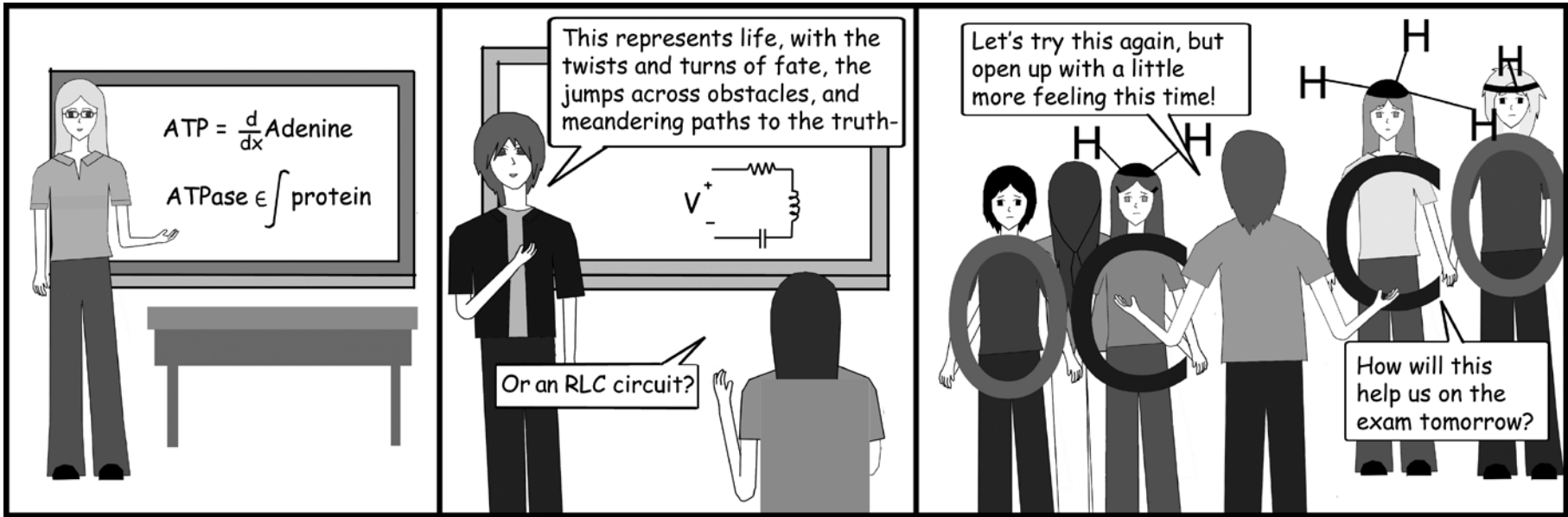
Haiying Yin

Fixed Income, New York

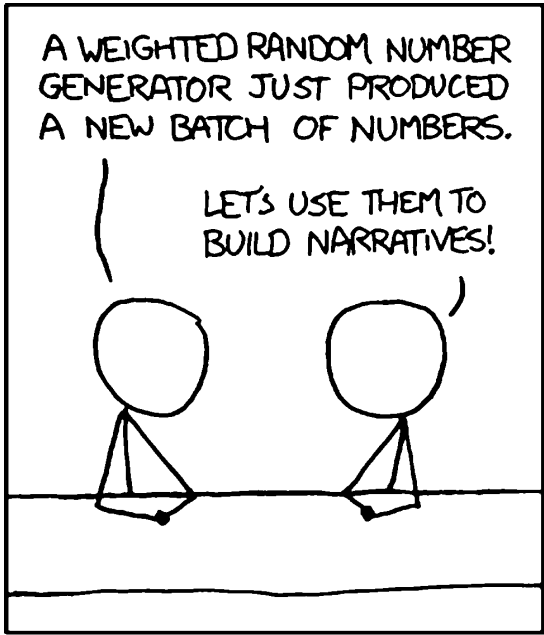
Morgan Stanley’s mission is to build a community of talent that can deliver the finest financial thinking, products and execution in the world. Our people come from a wide variety of backgrounds and interests—all are high achievers who share integrity, intellectual curiosity and the desire to work in a collegial atmosphere. We give our people responsibility early, so they can soon make an impact on our business and the world at large.

What Happens When TAs Teach Outside Their Major

by Letitia Li

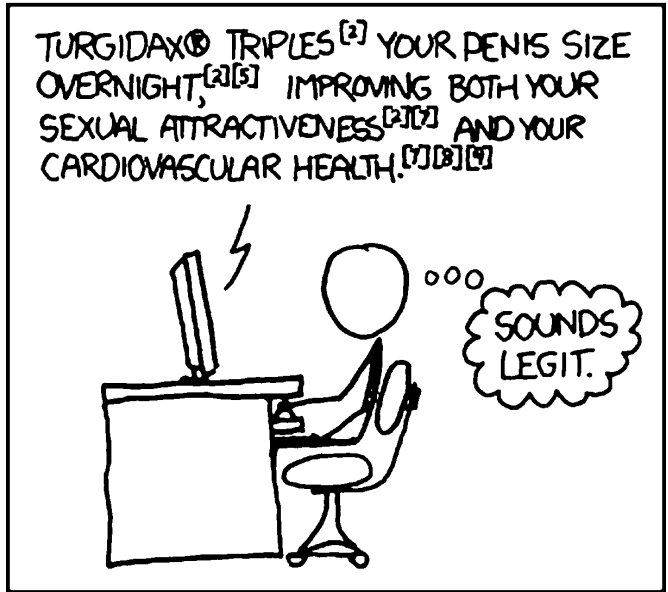


Sports



Also, all financial analysis. And, more directly, D&D.

Advertising Discovery



When advertisers figure this out, our only weapon will be blue sharps and "[disputed]";



Crossword Puzzle I

Solution, page 14

ACROSS

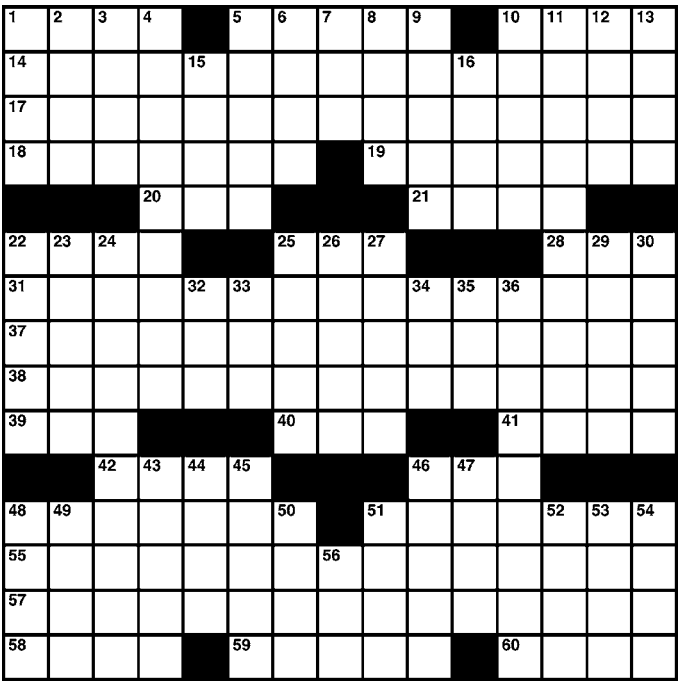
- 1 Many a Yemeni
- 5 ___ Rouge
- 10 Sch. support groups
- 14 "This can't be true!"
- 17 25-Across's WWII command
- 18 Algae on the beach
- 19 Semaphore user's output
- 20 "___ Blu Dipinto Di Blu": 1958 hit
- 21 Implement
- 22 Nursery bed
- 25 WWII general who became pres.
- 28 Devilish tot
- 31 Scorned notion
- 37 Oil and vinegar concoction
- 38 "Back off!"
- 39 SASE, e.g.
- 40 Forever and a day, facetiously
- 41 Not much
- 42 Spoken
- 46 Terminal-to-hotel transport
- 48 Kind of fingerprint or code

- 51 "Is it worth the risk?"
- 55 Title guy asked to "play a song for me," in a Byrds hit
- 57 Cause of many traveling delays
- 58 Afternoon socials
- 59 Davis of "Do the Right Thing"
- 60 Words before ghost or doctor

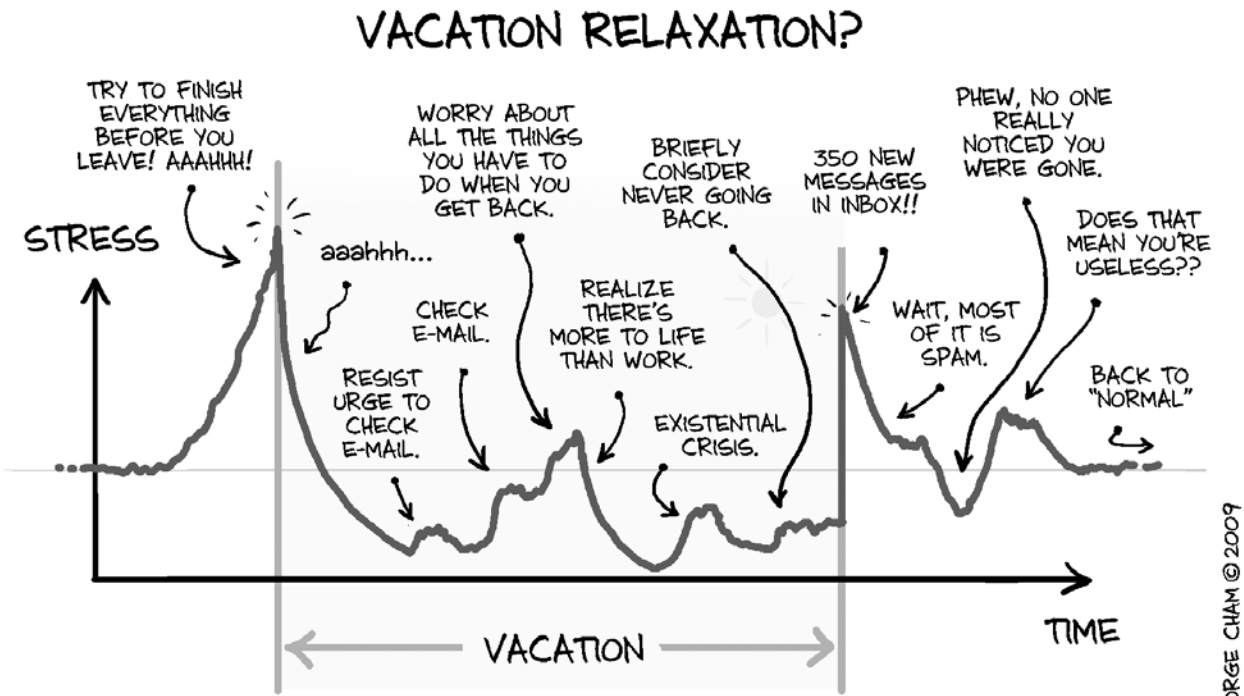
DOWN

- 1 Tars' affirmatives
- 2 Licentious sort
- 3 Certain something
- 4 High martial arts rank
- 5 Get ready to pray
- 6 1950s tennis great Lew
- 7 Part of a range: Abbr.
- 8 Inexact nos.
- 9 Whack anew
- 10 Beethoven's instrument
- 11 Nincompoop
- 12 "The Mammoth Hunters" author

- 13 Lith. et al., once
- 15 French for "sword"
- 16 ___ Park: Queens area near Forest Hills
- 22 Scold
- 23 Boca ___
- 24 Ollie North's '80s "affair"
- 25 "Divine Comedy" writer
- 26 Inflicted upon
- 27 Collapsed company chronicled in the 2005 documentary subtitled "The Smartest Guys in the Room"
- 29 Club for smart guys and girls
- 30 Alerted, as a doctor
- 32 Important
- 33 "Norma ___"
- 34 Want-ad abbr.
- 35 U.S. Army medal
- 36 Martha's Vineyard natives, e.g.
- 43 Gets as a return
- 44 Prefix with sphere
- 45 Book, to Bolívar



- 46 Express, as an opinion
- 47 Japanese aborigine
- 48 Exam for a Wharton Sch. hopeful
- 49 Port on its own lake
- 50 No-frills beds
- 51 Eins plus zwei
- 52 Gallic girlfriend
- 53 Interest percentage
- 54 Pop musician from County Donegal
- 56 ___ Constitution



Sudoku I

Solution, page 3

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

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.

Techdoku I

Solution, page 14

120x	30x			5-	2
	17+				12x
	1		36x		
12x				30x	
6x		5x		4	
3+		360x			

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.

Congratulations, 2011 graduates!

Graduation to do's:

- ☒ Cap and gown
- ☒ Cardboard boxes
- ☒ Packing tape

☐ Health insurance?

If you're a member of the class of 2011, your enrollment in the Student Extended MIT Health Plan ends on **August 31, 2011.**

To continue with a Blue Cross Blue Shield plan or a Massachusetts Health Connector plan, you **MUST** apply by **July 15, 2011.**



MIT Health Plan

Need more information?
Visit medweb.mit.edu

Captivating MIT for 39 years

Above all, physics professor Walter Lewin has a passion for teaching. On May 16, Lewin took the stage in 26-100 for the last time.

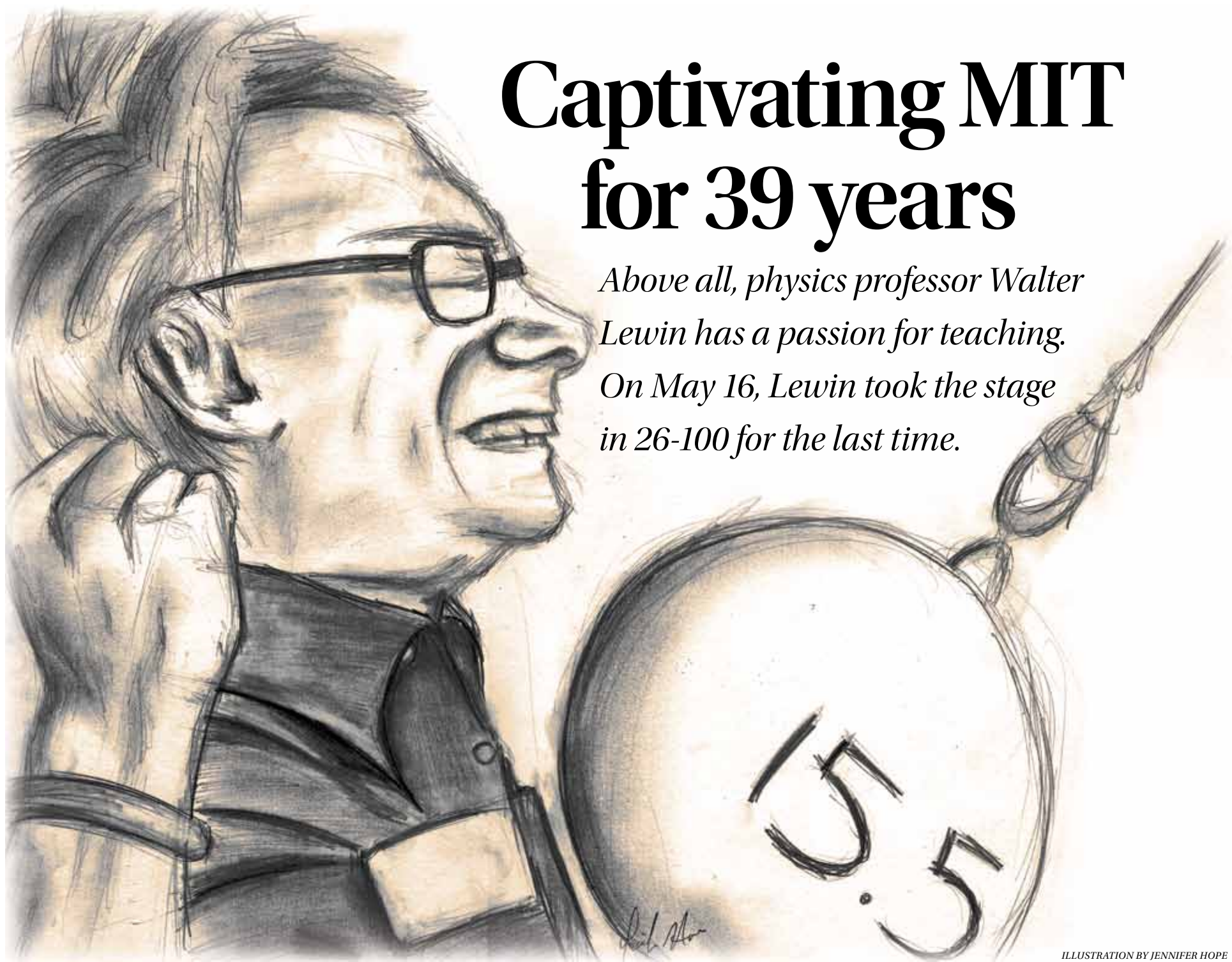


ILLUSTRATION BY JENNIFER HOPE

Lewin, from Page 1

“red sunset” on the projector screen, to demonstrate the polarization of light.

But this time — on May 16, 2011 — a blanket of tears coated his bright blue eyes, and Lewin walked across the stage of MIT’s largest lecture hall to address the crowd.

“I have given, in this lecture hall, about 800 lectures. And it is wonderful to be back here, but it really hurts to know that this is my last lecture in 26-100,” he said. “I have therefore decided that I want to leave you in style. The way I will do this, is I will leave 26-100 in my own private rocket.”

Off to the side, Lewin promptly grasped his cherry-red three-wheel vintage bike, sat down, and released the tab on a canister of CO₂, which propelled him across the speckled floor of the lecture hall’s stage.

The room — overflowing not only with students, but also older alumni and their children — promptly stood for a standing ovation.

Lewin’s final lecture was given to commemorate decades of teaching at MIT, as well as the release of his new book, *For the Love of Physics: from the End of the Rainbow to the Edge of Time — A Journey Through the Wonders of Physics* (Free Press).

A native of the Netherlands and a professor at MIT since 1966, this astrophysicist and lover of art has been recently recognized for the high merit of his video lectures on MIT OpenCourseWare (OCW); this past March, Lewin received the inaugural Educator Award for OpenCourseWare Excellence (ACE).

Since their release on OCW and YouTube, Lewin says his lectures are watched by 6000 people per day, or about 2 million per year. Bill Gates has personally written to him, saying he has watched all 94 of the uploaded lectures. His last lecture can be viewed in full at <http://www.us-tream.tv/recorded/14756530>.

The Interview

To further commemorate Lewin’s efforts at MIT as a professor and educator-at-large, *The Tech* sat down with him to probe deeper into what makes this physicist tick, how he got to where he is today, and what his thoughts are on teaching, science, and even his first love: art.

The Tech: What inspired you to become a physicist?

Walter H. G. Lewin: My becoming a physicist was, in a way, a negative choice. In high school, I was very good in math, and reasonably good in sciences — that was, chemistry and physics, and I was OK in biology. I couldn’t see myself doing math for the rest of my life. It was clear that I was going to university, but math ... no.

Well, then I was looking at chemistry, and my god, chemistry — you

have to remember so many things. Which is not the case with physics. Physics is way more conceptual than chemistry. So it scared the hell out of me. And biology has the same problem. It is amazing what biologist have to know; the number of diseases — they even know how to pronounce them — and all the medications that they give. It’s just mind boggling. I would have been a complete failure.

So what was left over? Physics. That’s what I meant by negative choice. But little did I know that I was made for physics, and physics was made for me. So it just worked out so wonderfully.

TT: What do you think distinguishes physics from the other sciences?

Lewin: Physics is at the bottom of all other sciences. Physics is at

the heart of everything. And it’s not because I want to brag about physics. Really, I have no interest in that. I’m not trying to sell you to become a physicist, really.

But chemistry, when you really think about it: Why does H₂O exist? That’s physics! Biology: Why do certain microamperes go around in your brain? Why is your heart pumping? That’s physics.

Now you may give it a different name. You may call it “physical chemistry” or “physical medicine,” but it’s all physics. So, it is at the heart of everything.

That’s not the reason, per se, that I like it so much, but it is at the heart of everything. So it was exactly the right choice for me. Because it’s conceptually way easier for me, than to remember so much.

TT: What did your parents do,

and did they encourage you to become a scientist?

Lewin: You should read chapter one of my book, to really understand this. But to explain some, my father was a Jew and half my family was gassed in Auschwitz. The war, it ended some 65 years ago, [but] the impact of the war will never go away. It is with me every day. Every single day. The war is with me.

So my whole childhood, and even my adulthood, is still in a way attached to that war. My father survived that war, luckily, even though he was Jewish.

Did my parents encourage me? Yes, but not per se to go into physics. They left that choice up to me. But they were always very supportive. I don’t think they were particularly proud that I did physics, but yes, they were supportive.

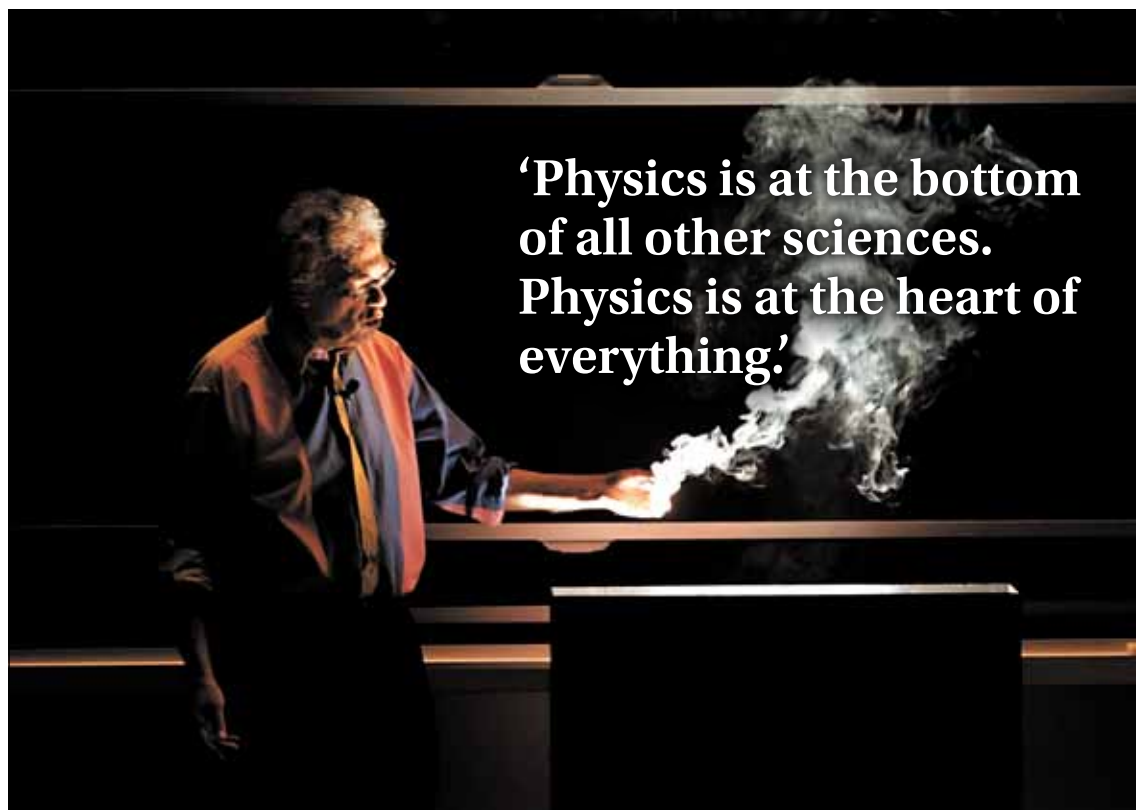
But I do remember when I got my PhD in physics, my father was proud. He then became proud of me, I think, because he was largely self-educated. So he did not ever make it to those top schools, and he didn’t even apply to them. Two generations back, going to university [was extremely uncommon].

My father said, “I never achieved any title that had any respect, and my son did.” And when I became a professor at MIT, of course, he was glowing.

TT: When is it that you think you discovered your passion for teaching?

Lewin: I was always very interested in art history. Already when I was 11 years old, I would go every week to museums. I started to prepare talks on the various movements in art history, and I gave one talk, I remember, when I was 15 years old at my school about Van Gogh. Those talks were always extremely well-received. My discipline of preparing talks is so thorough — already then — that the talks were always well-received.

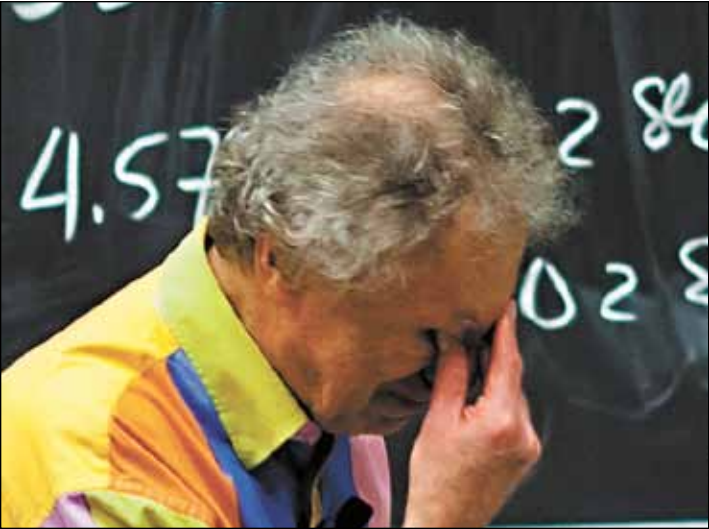
Then when I got what [Ameri-



MANOHAR SRIKANTH—THE TECH

Lewin demonstrates Rayleigh scattering by showing that cigarette smoke scatters blue light.

Lewin II, Page 19



MANOHAR SRIKANTH—THE TECH
Lewin emotionally announces that this lecture is his last.

Lewin II, from Page 18

cans] call the bachelor’s degree, I was entitled to be a teacher at one of the top two [secondary] schools [in the Netherlands]. I could teach them math and physics, and I did that for three reasons. If you did that for five years, you did not have to serve in the army. Then every year [I] did that, 20 percent of my student loan was waived by the government. And the third one was, if I was willing to work 85 hours a week, I was able to get my PhD. So I was [killing] three birds with one stone.

However, the energy that that took was unbelievable, as I needed 22 hours teaching per week. But I did that, and that’s when I started to be a real teacher. And the students loved me, so at MIT, it was just a natural continuation of something that I loved to do. People love to do the things that they’re good at. It’s a natural combination. So I loved to teach.

TT: Do you remember the first course, or even lecture, you taught here?

Lewin: At MIT, my first lecture was 1972 8.03 (Vibrations and Waves), which did not nearly have the quality that my 2004-2005 lectures did.

TT: When did you start doing the demonstrations that you are so famous for in your lectures today?

Lewin: Day one, of course. I’d have to look at my lecture notes. I’ve added some. I’ve improved some. But surely from day one that I lectured here, demonstrations were key support to my lectures. I worked with the demonstration group day and night. The demonstrations, they have to work. So I do dry runs two weeks before the lecture, and then the morning of the lecture, I dry run, all of them.

TT: What do you think is the relationship between your inspiration for teaching and your inspiration for research? Do you feel your passion for teaching at all inspired your research?

Lewin: My research was very specialized. I did high energy astrophysics, measuring x-rays from the universe. There was no inspiration; it was the other way around. I would say, it was because I was doing this research that whenever

there was an opportunity — the moment that the conservation of energy was discussed — I would introduce the collapse of super massive stars into neutron stars, and I would calculate in class the spin rate of those neutron stars. And then the moment we talk about Doppler shift, I would teach on cosmology. Whenever I can, I introduce examples from the real world and some that are inspiring to the students.

TT: How do you prepare your lectures?

Lewin: When I teach, I am completely obsessed with it. When I lecture, I am entranced. I dry run it so many times, it becomes a per-

‘I think of a lecture as having a structure that I call a house. When you remove parts, you have to make sure that you don’t remove a supporting structure that will make the whole house collapse.’

formance. It is almost as if I am watching myself.

I think of a lecture as having a structure that I call a house. You build a house that has a certain structure, and that is the way that I build my lectures. So when you remove parts, you have to make sure that you don’t remove a supporting structure in the house that will make the whole house collapse.

And in all the lectures that I’ve given, let’s say 1000, I’ve finished in plus or minus two minutes of the time that I had. The one time I abused the time, is when I went to 52 minutes [in a 50 minute lecture]. The room was dark with slides, so the students couldn’t look at their watches and leave. How I do this, is if you look at my lecture notes, I have marked every five minutes where I should be. And then if I’m a minute behind or three minutes behind, I can correct for that.

I’ll tell you another secret: My timers never go up in time; they only go down in time. There’s a reason for that. My lecture notes count down to zero, so I always know how much more I have. It’s very psychologically important.

TT: Regarding your work with



MANOHAR SRIKANTH—THE TECH
The 75-year-old Professor Lewin takes 10 full swings on a pendulum to demonstrate that adding mass will not change its frequency.

OpenCourseware, why do you think education is so important?

Lewin: Educating the world! We are an ivory tower, and OCW has opened the doors. We were a forbidden city, where people only came and took pictures in the infinite hall. Now they can look at what we’re teaching! It’s brilliant! It’s the best thing since sliced bread! It’s truly incredible, and technology has made that possible.

MIT was the first to do this, and my lectures were the first to go onto OCW. Dick Larson really should get credit for making sure these lectures of mine were videotaped.

TT: Do you have any especially

er comes to you, you do it.

TT: Do you have a favorite chapter in your book?

Lewin: The first and the last. You’ll have to read it to see. But the last one, I’ll just tell you, it’s about the new way of seeing. And that connects physics with art. And since both art and physics are both my love, my life ... I have 125 works of art ... I talk about how art is a new way of seeing, like physics.

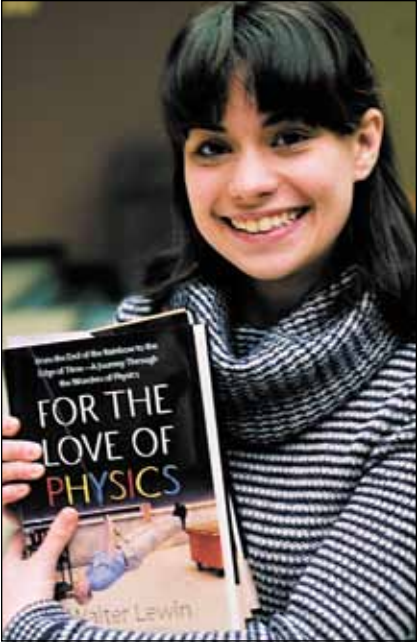
TT: As a last, related question, what are the parallels that you see between science and art, in terms of ways of seeing?

Lewin: The parallel is that pioneering art and pioneering physics break new ground. They make us look at the word in a different way. But you have to stress the word pioneering. That’s what they have in common.

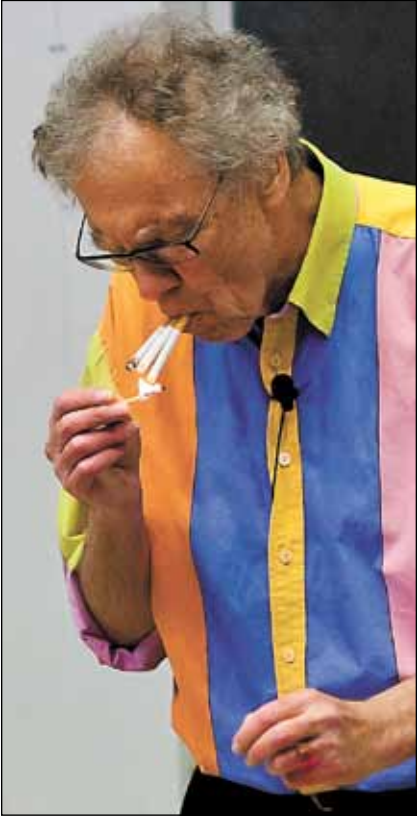
Pioneering physics or any physics theory can be right or wrong. Art cannot be right or wrong; it can be good or bad. So it’s a totally different criteria by which art is being evaluated. But what they really have in common is that pioneering art makes you see the world in different ways.

Think of the impressionists, who at the time were considered idiots. At the time, it was considered that they couldn’t paint. Well, people who were completely uneducated in art had Monet on their wall. And they loved it. Van Gogh sold in his life one painting. He couldn’t give them away. People rip their pants nowadays for Van Gogh. His paintings now go for \$60 million, because the world that he created is now part of your world. You accept that. They have made you; they have changed you. And the same is true of pioneering physics.

Think of Newton in the 17th century, of how he changed the whole concept of science. He changed fundamentally from an Aristotelian idea ... to a field that can all of the sudden be calculated, and be measured, and can be verified. He can make predictions. And these predications could be checked. He changed the whole way we look at the world. Think about Maxwell. His equations. Think then about cosmology. And Einstein. Special Relativity. General Relativity. The whole world has changed after them.



ANA LYONS—THE TECH
Lewin signed copies of his newly published book after his last lecture.



MANOHAR SRIKANTH—THE TECH
Lewin lights the third of four cigarettes he needs to generate enough small particles to demonstrate Rayleigh scattering.



MENG HENG TOUCH—THE TECH

Congratulations to *The Tech's* Class of 2011

VINCE AGARD

MICHAEL CIUFFO

ARKAJIT DEY

JASMINE FLORENTINE

FLORENCE GALLEZ

JEFF GUO

KEN M. HAGGERTY

BRIAN HEMOND

STEVE HOWLAND

TRACY KAMBARA

VIBIN KUNDUKULAM

LETITIA W. LI

MICHAEL T. LIN

STEPHANIE LIN

MICHAEL Y. MCCANNA

MINH PHAN

NATASHA PLOTKIN

SATWIKSAI SESHASAI

FANGFEI SHEN

MARK THOMPSON

LIZ TSAI

ELIJAH JORDAN TURNER

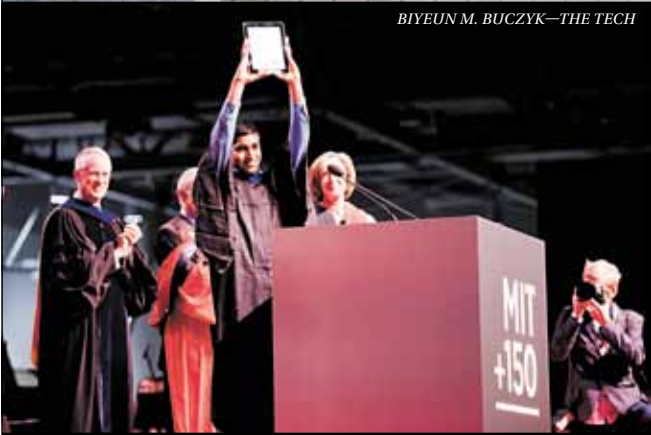
SHERRY YAN

CHRISTINE YU





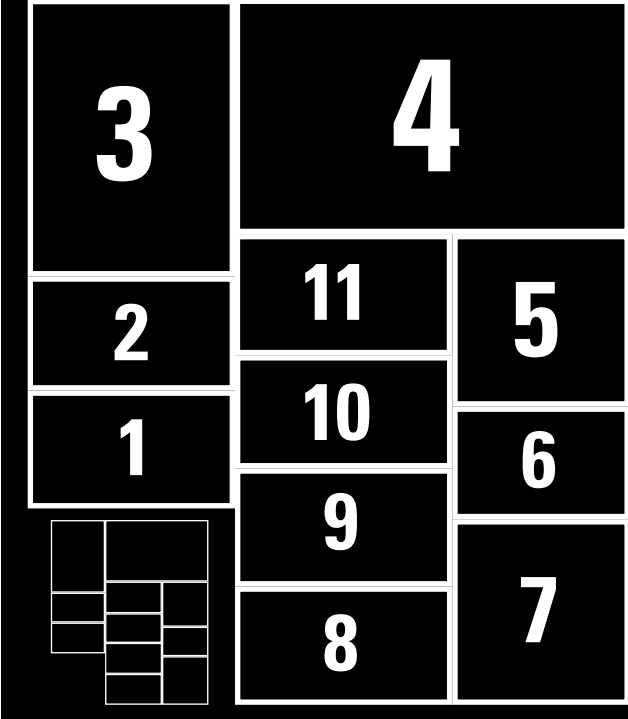
YUANYU CHEN—THE TECH



BIYEUN M. BUCZYK—THE TECH



MANOHAR SRIKANTH—THE TECH



- 1 An Army UH 60 Black Hawk helicopter visited Briggs Field for an inspection by MIT's Army ROTC.
- 2 Undergraduate Association President Vrajesh Y. Modi '11 holds up the iPad used to sign a recommitment to MIT's charter at the MIT Next Century Convocation on April 10.
- 3 For MIT's 150th anniversary, hackers installed 20–30 hacks all over campus. This sideways lounge hack was installed to commemorate the upside-down lounge hack installed during Campus Preview Weekend 2010.
- 4 Inflatable stars soared above Killian Court during FAST Light on May 7.
- 5 At noon on April 30 an organized "flash mob" convened



MANOHAR SRIKANTH—THE TECH

MIT 150 IN REVIEW



MANOHAR SRIKANTH—THE TECH



MANOHAR SRIKANTH—THE TECH



MANOHAR SRIKANTH—THE TECH



MANOHAR SRIKANTH—THE TECH



JENNIFER WANG



NICHOLAS CHORNAY—THE TECH



MANOHAR SRIKANTH—THE TECH

- in Lobby 7, singing and dancing to a selection of pop and dance music. The flash mob required advance sign-up and rehearsal attendance.
- 6 Visitors play in the *Gradated Field*, one of the many FAST installations that appeared on campus in early May. *Gradated Field* was a collection of smooth, white plaster mounds formed by latex sheets.
- 7 *Wind Screen* features many wind turbine subunits, each of which generates all the energy it needs to light up as it spins.
- 8 Visitors explore the *Unflat Pavilion/Feather-Weight House*, a freestanding pavilion constructed from laminated plywood that appeared on campus in early May.

- 9 Children learn the inner workings of a joystick-controlled robotic manipulator at a technology demonstration in the Stata Center during MIT's Under The Dome Open House celebration. Approximately 20,000 attendees visited campus for the first open house in over 30 years.
- 10 *Night of Numbers*, a set of lighted numbers with special significance to MIT, was installed on buildings across campus for the MIT150 FAST Arts Festival.
- 11 *Liquid Archive* was installed along the Charles for the FAST Arts Festival. During FAST Light in early May, an hour-long program of environmental artwork was projected onto the inflatable screen.

Men’s Rugby claims Div. III Cup

Coach Christie credited with turning team around



CHRISTINA COSMAN

Fullback Michael P. Byrne G eyes up the opposition for a tackle with the support of scrumhalf Jason Shepherd and winger Matthew R. Adendorff G in the 2011 NERFU Cup Tournament semifinal game against Springfield Rugby Football Club. MIT beat Springfield 29-10 and later went on to beat Saratoga Rugby Football Club and win the cup.

By Aislyn Schalck
EXECUTIVE EDITOR

Going 5-1 in the regular fall season and 8-1 in the spring, the MIT Men’s Rugby team took its awesome streak one step further by winning the Division III Championship at the North East Rugby Football Union Cup Tournament. MIT went down to the tournament in Newport, R.I. on May 14 as the second seed in their division. In the first match the Engineers overtook the division’s third seed team, Springfield, scoring and converting tries throughout the game. Despite 10 points being awarded to and earned by Springfield as the result of MIT penalties, MIT won the match 29-10.

MIT played their second match against Saratoga, who they fell to in the fall 22-30 whilst competing for the league’s title. MIT redeemed this tough loss by shutting out Saratoga at the NERFU tournament, scoring four tries in the first half and one in the second. With conversions, the final score was 34-0, giving the cup to MIT.

The team’s recent success has mostly been attributed to hiring an experienced coach who does not also play for the team. Men’s Rugby is a club sport at MIT and also competes against local non-collegiate teams. This allows the team to draw from an ample talent pool of MIT affiliates as well as students. However, as recently as two years ago, the team was doing so poorly it was threatened with being dropped from Division III.

With the recent acquisition of coach Sean Christie — who also coached Northeastern to a Division I collegiate national championship in the fall — the team has been steadily improving, culminating in their recent win. According to the team’s vice president, Jason Shepherd, the successful season has resulted in increased player commitment to the team. Having a coach has also given the team a stronger ability to train new players. Not once has anyone crossed the MIT try-line in four games, just one of their successful accomplishments.

With this win, the MIT Men’s Rugby Team is looking forward to the fall season. “We have high expectations for this coming fall season and are aiming for Nationals,” Shepherd said.

Women’s Track takes 4th at OC

Earned 14 All-America nods, clinched Program of the Year

By Greg McKeever
DAPER STAFF

The MIT Women’s Track and Field team capped off the most successful year in program history with a fourth-place finish at the NCAA Division III Outdoor Championship over the weekend. The Engineers collected 14 All-America nods and finished with 45 team points. Coach Halston Taylor’s program also clinched the Deb Vercauteren national Program of the Year award, given to the team that registers the best combined finishes at the NCAA Cross Country, Indoor and Outdoor Track and Field Championships.

Portia M. Jones ’12 led the way for Tech, landing on the All-America podium four times and accounting for 16.5 points for the team during the Championship. Jones was the national runner-up in the 100-meter hurdles, after running the fastest qualifying time in the heats on Friday. Amy R. Magnuson G joined Jones on the awards stand, taking fourth place in the event with time of 14.64 seconds.

Jones also finished third in the 200, as the final eight runners were able to overcome a slight headwind to run a very competitive race. Jones’ time was 24.91, just five one-hundredths of a second behind second place and one one-hundredth faster than fourth. The junior competed in the 100-meter dash as well, but was unable to qualify for the final after running a 12.45 prelim.

Jamie L. Simmons ’12 earned All-America honors in the 400 intermediate hurdles for the second year in a row. Simmons’ time of 1:00.65 was good for fourth overall. Simmons was also entered in the 400 but did not advance to the final.

MIT picked up two more All-America nods in the pole vault, as Karin E. Fisher ’11 and Lauren B. Kuntz ’13 went three-four. Fisher was one of just three vaulters in the country to clear 13 feet, as her final vault of 13-3.00 feet was enough to place third. Kuntz went over the bar at 12-7.25 to pick up five points for the Engineers. Hazel L. Briner ’11 just missed out on the All-America level, placing in a tie for 10th.

The 4x100 relay was able to significantly improve its standing, as the group wound up in fifth place after coming into the meet as the 13th seed overall. Jacqueline A. Brew ’14, Martha M. Gross ’12, and Simmons completed the first three legs before handing off to Jones, who brought the team home in 47.12 seconds.

Also competing for the Cardinal and Gray in a pair of distance events was Anna M. Holt-Gosselin ’11. The senior was 19th in the 5000 meters (18:22.66) and took 18th in the 10k.

SPORTS SHORT

Dama, Hyatt recognized as Academic All-Americans

Two of MIT’s baseball players received recognition in the College Sports Information Directors of America’s Academic All-American Program. The award comes as a result of strong athletic performance in addition to consistent and impressive academic performance. Pitcher Aric J. Dama ’13, a sophomore studying mechanical engineering, finished the baseball season with a 2.45 ERA and as NEW-MAC pitcher of the year. In addition to having the most strikeouts in the conference, he pitched multiple shutouts and pitched in the conference games with a 0.57 ERA. Catcher Daniel E. Hyatt ’11, also a mechanical engineering student, is receiving this recognition for the second time. With a 0.348 batting average, he scored 23 runs this season and played in every game for the Engineers this year. In addition to maintaining a strong GPA in his major, Hyatt has helped mentor younger athletes on the team throughout his time at MIT.

After one of MIT baseball’s strongest seasons in years, the team advanced to the NCAA Tournament, although they lost to Tufts University in a tough game with a final score of 3-2. The Engineers finished the season with a 25-15 record.

—Shelley Ackerman

Will Mavericks be able to beat the Heat?

Looking back on the Heat’s journey and ahead to the NBA finals

By Nidharshan Anandasivam
SPORTS WRITER

The champs from the East, the Miami Heat, are here for a reason, Having shown determined resilience since the start of the season. Starting out at a dismal 9-8, “King James” impressed only a few, But from then on, the Heat buckled down to give Miami fans their due. Clinching the third seed in the East, the Heat faced the Sixers in the first round. Winning the first three wasn’t a large task since the boards they did pound. Game Four went to Philly thanks to Iguodala’s commitment to strive, But the Heat reestablished their dominance by winning Game Five. The next test came from the Big Three of Boston and Rondo, the point guard, But Miami responded by defending the Celtic stars with proper regard, Game Four came down to a pivotal shot at the end of regulation, But Pierce missed, and the Celtics lost in overtime, adding to Boston’s frustration. Down 3-1 in the series, the Celtics marched into Miami looking for a road win, But Wade and James were having none of that, for that would be a Miami sin. The game was close mid-fourth quarter, and James knew it was time, A chance for him to showcase his talents in the clutch and commit a Boston crime. This brought on an anticipated matchup against the Bulls and Rose, Who was lethal because of his ability to drive, get to the line, and knock down free throws. The Bulls ran away with Game One late thanks to Rose, Deng, and the hype of the crowd,

But the Heat stole Game Two, and the Chicago crowd was no longer so loud. Miami took the next three, each because of the late game heroics of their stars, And it seemed like the Heat were meeting all the high expectations, all the raised bars. Now the Heat find themselves in the final series after making it through ... The question is: Will they be able to achieve what they pursue?

Although this last question may seem easy to answer given the talent and prowess demonstrated by the Miami Heat as they cruised by the 76ers, Celtics, and Bulls, a closer examination of the weapons of the Dallas Mavericks and the player matchups between the two teams may suggest otherwise. Nowitzki’s shooting performances throughout the 2011 playoffs, the experience brought by Kidd, Terry, and Nowitzki, and the spark provided by Marion and Barea off the bench show that the Mavericks will not go down easy. While certain questions loom for the Mavericks (Who will stop the driving and shooting of LeBron James? Who will be able to put a body on the ferocious Chris Bosh? Who will keep pace with the speedy Dwyane Wade?), there are also questions that the Heat have to answer (How do we stop Nowitzki if he makes nearly every shot he gets off cleanly? How do we defend and counter the passing game initiated by Kidd and Terry? When should we double team and when do we play zone defense against this sharpshooting team?). Miami is stocked with height and athleticism on the defensive end, especially with their Big Three. But Dallas has some defense of their own: the skill and quickness of Kidd, Terry, and Marion, and the size and blocking ability of Chandler and the forwards. In the end, the individual

matchups will be crucial. The front court battle pits Wade, Bibby, and Chalmers of the Heat against Terry, Kidd, and Barea of the Mavericks. Here, whichever group better facilitates ball movement for the half court offense will win. On the other hand, the back court matchup features James, Bosh, and Anthony of the Heat versus Nowitzki, Chandler, and Haywood of the Mavericks. Whichever squad dominates the glass and utilizes aggressive post play will probably win. During the regular season, the Mavericks beat the Heat both times they played each other (106-95 in Dallas on Nov. 27 and 98-96 in Miami on Dec. 20). In fact, at that point in the season, the Heat lost to the Mavericks, won 12 straight games, then lost to the Mavericks again to snap their streak. Subsequently, Miami won their next nine games. It was no coincidence; the Mavericks probably were the better team then. However, the current Heat team is much different from that of the regular season. Their tenacity, late-game performance, and team play have shone throughout the playoffs. Dallas has also proven to be a more poised, disciplined team in the playoffs. After all, this is the Maverick team that swept Kobe Bryant and the second-seeded Los Angeles Lakers. Will LeBron James accomplish what he set out to do when he decided to leave Cleveland to join Dwyane Wade in Miami? Will the Heat, with its two superstars from the 2003 NBA Draft, meet the expectations they’ve set up for themselves? We can only wait and watch. Only time will tell which team will rise to the occasion, play better team basketball, and become the 2011 NBA Champions.

Editor’s Note: Due to The Tech’s editorial deadlines, this article was necessarily written prior to the June 2 Mavericks v. Heat game.

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