MIT conference tackles depression

Related to learning and memory, sought to improve the diagnosis, prevention and treatment of depression. The disease is now believed to cause not only mental anguish but also early death from medical conditions as diverse as stroke and cancer. Moderated by Dr. Peter D. Kramer of Brown University, author of “Listening to Prozac” and “Against Depression,” the event’s wide-ranging presentations touched on the latest findings in basic neuroscience, insurance issues, behavioral studies, current and potential treatments, depression in the workplace and depression among artists and writers.

Robert Finsky, former U.S. poet laureate, read poems by Yeats to support his idea that depression is a necessary part of human evolutionary adaptation, a craving for perfection that results in frustration and feelings of worthlessness. Psychiatrists Dr. Charles Nemeroff of Emory University and Dr. Ned H. Kalin of the University of Wisconsin related the results of studies on certain gene combinations that seem to make people resistant or prone to depression. Garry Gannice, vice president at Prudential Financial, used a case study about a divorced single mother whose depression almost cost her her job as an example of how intervention in the workplace is needed to seek out and help undiagnosed and untreated employees.

Panelist Paul H. Styrulkowski of Medtronic Neurological described how a treatment of last resort — deep brain stimulation, in which electrical leads are implanted in the brain — has successfully treated symptoms of Parkinson’s disease and epilepsy and may be applied to depression.

The conference’s goal, said co-organizer Mark Bear, Prower Professor of Neuroscience at the Picower Institute, was to allow a diverse group of professionals to explore the fundamental insights in neuroscience can be applied to problems of great societal importance. The Open Mind Series, said Keith Dixon, president of CIGNA Behavioral Health, is a demonstration of CIGNA’s commitment to understanding more about the complex relationship between the mind and body and to learn what else we can do to help people.

‘Apprentice’ to star MIT alumnus

Amy Marcott
MIT Alumni Association

Look out, America. An MIT alumnus will now be a Donald Trump’s boardroom when NBC’s reality TV show “The Apprentice” premieres tomorrow, Sept. 22, at 9 p.m.

Randal Pinkett (S.M., M.B.A. ’98, Ph.D. ’02, ’01) will be one of 10 contestants, most of whom were handpicked by real estate magnate Trump. Trump’s control of the selection process is new this year after Trump expressed dissatisfaction with the previous season’s cast.

Pinkett, 34, is the co-founder, president and CEO of Newark, N.J.-based BCT Partners, a management, technology and policy consulting firm for corporations, government agencies and nonprofits. BCT Partners specializes in housing and community development, economic development, human services, nonprofit and community technology and education.

Contestants are contractually bound not to discuss the show, but Pinkett was willing to reveal his motivations for applying. “First, I want the opportunity to learn from Mr. Trump,” he said. “He is an icon in business with a wealth of knowledge, whereas I am still relatively young in my career.”

See APPRENTICE
Page 4

NATURAL ENGINEERING

Researchers examine the armor coating provided by seashells to help engineers design better protection for people.

Page 4

ARTS

HAVE A TASTE FOR VENOM? ‘The Five Venoms Style’ will be performed Friday in a show featuring Vietnamese guitar.

Page 7

LINUS WOULD BE PROUD

Lovers of the Great Pumpkin, get ready! It’s time for the annual glass pumpkin sale.

Page 7

NEWS

ENERGY FOR THE FUTURE
BP’s chief scientist will give the first lecture sponsored by MIT’s Energy Research Council.

INNOVATION REWARDED
MIT faculty and alumni are listed among Technology Review’s 35 best innovators under 35.

Page 2

Page 5

Page 7

Volume 50 – Number 2
Wednesday – September 21, 2005

Deborah Halber
News Office Correspondent

Key stakeholders in the American depression epidemic — neuroscientists, clinicians, patients and health-care industry representatives — came together Monday at a one-day conference at MIT sponsored by employee benefits company CIGNA and the Picower Institute for Learning and Memory.

Depression, clinically defined as persistent black moods, constant distressing memories and an inability to experience pleasure, affects more than 20 million Americans a year at a huge national cost. “On Depression,” which kicked off Monday at a one-day conference at MIT sponsored by employee benefits company CIGNA and the Picower Institute for Learning and Memory, sought to make people resistant or prone to depression. Garry Gannice, vice president at Prudential Financial, used a case study about a divorced single mother whose depression almost cost her her job as an example of how intervention in the workplace is needed to seek out and help undiagnosed and untreated employees.

Panelist Paul H. Styrulkowski of Medtronic Neurological described how a treatment of last resort — deep brain stimulation, in which electrical leads are implanted in the brain — has successfully treated symptoms of Parkinson’s disease and epilepsy and may be applied to depression.

The conference’s goal, said co-organizer Mark Bear, Prower Professor of Neuroscience at the Picower Institute, was to allow a diverse group of professionals to explore the fundamental insights in neuroscience can be applied to problems of great societal importance. The Open Mind Series, said Keith Dixon, president of CIGNA Behavioral Health, is a demonstration of CIGNA’s commitment to understanding more about the complex relationship between the mind and body and to learn what else we can do to help people.

‘Apprentice’ to star MIT alumnus

Amy Marcott
MIT Alumni Association

Look out, America. An MIT alumnus will now be a Donald Trump’s boardroom when NBC’s reality TV show “The Apprentice” premieres tomorrow, Sept. 22, at 9 p.m.

Randal Pinkett (S.M., M.B.A. ’98, Ph.D. ’02, ’01) will be one of 10 contestants, most of whom were handpicked by real estate magnate Trump. Trump’s control of the selection process is new this year after Trump expressed dissatisfaction with the previous season’s cast.

Pinkett, 34, is the co-founder, president and CEO of Newark, N.J.-based BCT Partners, a management, technology and policy consulting firm for corporations, government agencies and nonprofits. BCT Partners specializes in housing and community development, economic development, human services, nonprofit and community technology and education.

Contestants are contractually bound not to discuss the show, but Pinkett was willing to reveal his motivations for applying. “First, I want the opportunity to learn from Mr. Trump,” he said. “He is an icon in business with a wealth of knowledge, whereas I am still relatively young in my career.”

See APPRENTICE
Page 4

NATURAL ENGINEERING

Researchers examine the armor coating provided by seashells to help engineers design better protection for people.

Page 4

ARTS

HAVE A TASTE FOR VENOM? ‘The Five Venoms Style’ will be performed Friday in a show featuring Vietnamese guitar.

Page 7

LINUS WOULD BE PROUD

Lovers of the Great Pumpkin, get ready! It’s time for the annual glass pumpkin sale.

Page 7

NEWS

ENERGY FOR THE FUTURE
BP’s chief scientist will give the first lecture sponsored by MIT’s Energy Research Council.

INNOVATION REWARDED
MIT faculty and alumni are listed among Technology Review’s 35 best innovators under 35.

Page 2

Page 5

Page 7

Volume 50 – Number 2
Wednesday – September 21, 2005

Deborah Halber
News Office Correspondent

Key stakeholders in the American depression epidemic — neuroscientists, clinicians, patients and health-care industry representatives — came together Monday at a one-day conference at MIT sponsored by employee benefits company CIGNA and the Picower Institute for Learning and Memory.

Depression, clinically defined as persistent black moods, constant distressing memories and an inability to experience pleasure, affects more than 20 million Americans a year at a huge national cost. “On Depression,” which kicked off Monday at a one-day conference at MIT sponsored by employee benefits company CIGNA and the Picower Institute for Learning and Memory, sought to make people resistant or prone to depression. Garry Gannice, vice president at Prudential Financial, used a case study about a divorced single mother whose depression almost cost her her job as an example of how intervention in the workplace is needed to seek out and help undiagnosed and untreated employees.

Panelist Paul H. Styrulkowski of Medtronic Neurological described how a treatment of last resort — deep brain stimulation, in which electrical leads are implanted in the brain — has successfully treated symptoms of Parkinson’s disease and epilepsy and may be applied to depression.

The conference’s goal, said co-organizer Mark Bear, Prower Professor of Neuroscience at the Picower Institute, was to allow a diverse group of professionals to explore the fundamental insights in neuroscience can be applied to problems of great societal importance. The Open Mind Series, said Keith Dixon, president of CIGNA Behavioral Health, is a demonstration of CIGNA’s commitment to understanding more about the complex relationship between the mind and body and to learn what else we can do to help people.

‘Apprentice’ to star MIT alumnus

Amy Marcott
MIT Alumni Association

Look out, America. An MIT alumnus will now be a Donald Trump’s boardroom when NBC’s reality TV show “The Apprentice” premieres tomorrow, Sept. 22, at 9 p.m.

Randal Pinkett (S.M., M.B.A. ’98, Ph.D. ’02, ’01) will be one of 10 contestants, most of whom were handpicked by real estate magnate Trump. Trump’s control of the selection process is new this year after Trump expressed dissatisfaction with the previous season’s cast.

Pinkett, 34, is the co-founder, president and CEO of Newark, N.J.-based BCT Partners, a management, technology and policy consulting firm for corporations, government agencies and nonprofits. BCT Partners specializes in housing and community development, economic development, human services, nonprofit and community technology and education.

Contestants are contractually bound not to discuss the show, but Pinkett was willing to reveal his motivations for applying. “First, I want the opportunity to learn from Mr. Trump,” he said. “He is an icon in business with a wealth of knowledge, whereas I am still relatively young in my career.”

See APPRENTICE
Page 4

NATURAL ENGINEERING

Researchers examine the armor coating provided by seashells to help engineers design better protection for people.

Page 4

ARTS

HAVE A TASTE FOR VENOM? ‘The Five Venoms Style’ will be performed Friday in a show featuring Vietnamese guitar.

Page 7

LINUS WOULD BE PROUD

Lovers of the Great Pumpkin, get ready! It’s time for the annual glass pumpkin sale.

Page 7

NEWS

ENERGY FOR THE FUTURE
BP’s chief scientist will give the first lecture sponsored by MIT’s Energy Research Council.

INNOVATION REWARDED
MIT faculty and alumni are listed among Technology Review’s 35 best innovators under 35.
Energy council launches series

MIT’s Energy Research Council is initiating a series of energy colloquia starting Thursday, October 20 and continuing on the first Thursday of each month for an entire year. The council is co-chaired by Chevon Professor Robert C. Armstrong and Professor Paul W. Eshleman. The council’s mission is to formulate a research agenda to address the major forces shaping the world’s energy future.

President Paul Guzzi and introduced by MIT President Susan Hockfield established the Energy Research Council in June to spearhead efforts to address the world’s mounting energy problems. The council is co-chaired by Chevron Professor Robert C. Armstrong, head of the Department of Chemical Engineering, and Ernest J. Moniz, the Cecil and Ida Green Professor of Materials Science and Engineering, head of the Laboratory for Energy and the Environment at Caltech.

Moniz was undersecretary for the U.S. Department of Energy from 1997 to 2001 during the Clinton administration. Komin earned his undergraduate degree at Caltech and his Ph.D. in theoretical physics from MIT in 1975. His research interests have included global environmental and astrophysical problems, and theoretical nuclear, many-body and computational physics. He is engaged in a project to observe the variations of an earthshine reflected from the lunar surface to determine phenomena in the global albedo or reflectivity, an important parameter of the climate system. In 1998, he was awarded the Lawrence Award in Physics from the Department of Energy.

The meeting is co-hosted by LFEE and the MIT Corporation. The 24-page handbook explains what constitutes cheating, the types of cheating that are most common on campus, and what constitutes cheating when writing code.

Handbook out on academic integrity

MIT has produced a new handbook on academic integrity in an effort to provide the community guidance on issues associated with giving proper credit for creative contributions by others. Such issues can be especially challenging in today’s world, since the Internet is widely used.

The handbook, which has already been distributed to faculty members and first-year students, was created under the sponsorship of Robert P. Redwine, dean and Roche Diagnostics, with more to be added. For more information, go to the SciQuest website or send your inquiries to sciquest@mit.edu.

New e-mail list service

A new service list lets MIT users create their own e-mail lists online, including Mailman lists and Moira/Aboutus lists. Mailman lists are e-mail lists that offer moderated list traffic, archives of list messages and flexibly offer subscription and filtering options. Moira lists, also known as Althea mailing lists, can be used for e-mail mailing lists as well as access control lists in networked file systems, such as NFS or NFS. Moira lists do not offer moderation of list traffic. You can access the list creation website from http://webmail.mit.edu/ account/where/itsat/ This service is a fee-based one (at this time, only $1 per year is required). If you have questions about the service, feel free to contact the service, contact IS&T User Accounts at accounts@mit.edu.

DigitalK is compiled by Information Services and Technology.

Calendared improved

The Improved MIT events calendar is now available on events.mit.edu is the place to find MIT events of all kinds, from seminars, lectures, cultural activities and more. The new calendar is faster, easier to navigate and quicker to reach by keyword, date, category or event sponsor.

The editor's pick changes on reloae to showcase the vibrancy of student and faculty events. Events are also displayed in the Lobby 7 kiosk, and may be selected for Thinking and Society Office website, or the MIT home page. The calendar is sustained by the community and events on the calendar need a collective commitment to address "Other states and local regions are to the thousands of companies founded by the high cost of housing and the difficulty opportunities in areas such as energy, and MIT graduates, faculty and students over for the benefit of the world. Through the The calendar is a project of the Infor- to retain existing knowledge-based indus- improving the quality of life in Massachu- to join BP will discuss the major the MIT campus, and they are the driving forces shaping the world’s energy future.

The lecture, co-hosted by LFEE and the MIT Corporation. The 24-page handbook explains what constitutes cheating, the types of cheating that are most common on campus, and what constitutes cheating when writing code.

Handbook out on academic integrity

MIT has produced a new handbook on academic integrity in an effort to provide the community guidance on issues associated with giving proper credit for creative contributions by others. Such issues can be especially challenging in today’s world, since the Internet is widely used.

The handbook, which has already been distributed to faculty members and first-year students, was created under the sponsorship of Robert P. Redwine, dean and Roche Diagnostics, with more to be added. For more information, go to the SciQuest website or send your inquiries to sciquest@mit.edu.

New e-mail list service

A new service list lets MIT users create their own e-mail lists online, including Mailman lists and Moira/Aboutus lists. Mailman lists are e-mail lists that offer moderated list traffic, archives of list messages and flexibly offer subscription and filtering options. Moira lists, also known as Althea mailing lists, can be used for e-mail mailing lists as well as access control lists in networked file systems, such as NFS or NFS. Moira lists do not offer moderation of list traffic. You can access the list creation website from http://webmail.mit.edu/ account/where/itsat/ This service is a fee-based one (at this time, only $1 per year is required). If you have questions about the service, feel free to contact the service, contact IS&T User Accounts at accounts@mit.edu.

DigitalK is compiled by Information Services and Technology.

Calendared improved

The Improved MIT events calendar is now available on events.mit.edu is the place to find MIT events of all kinds, from seminars, lectures, cultural activities and more. The new calendar is faster, easier to navigate and quicker to reach by keyword, date, category or event sponsor.

The editor's pick changes on reloae to showcase the vibrancy of student and faculty events. Events are also displayed in the Lobby 7 kiosk, and may be selected for Thinking and Society Office website, or the MIT home page. The calendar is sustained by the community and events on the calendar need a collective commitment to address "Other states and local regions are to the thousands of companies founded by the high cost of housing and the difficulty opportunities in areas such as energy, and MIT graduates, faculty and students over for the benefit of the world. Through the The calendar is a project of the Infor- to retain existing knowledge-based indus- improving the quality of life in Massachu- to join BP will discuss the major the MIT campus, and they are the driving forces shaping the world’s energy future.
Faculty pool ideas for Katrina assistance

Sarah H. Wright  
News Office

The MIT faculty has responded to the crises left in Hurricane Katrina’s terrible wake with many ideas for the immediate relief and long-term recovery of the Gulf Coast.

To make the best use of Institute resources and to nurture the spirit of collaboration across disciplines, Chancellor Philip Clay launched an initiative this week to canvass the faculty for their individual interests and projects that relate to any aspect of recovery for the devastated areas of Louisiana, Mississippi, and Alabama.

Clay’s initiative is a primary task of the Katrina Response Advisory Group, which was appointed by MIT President Susan Hockfield, and is convened by Vice President Kathryn Willmore.

“MIT’s mission is grounded in service to society, and in the weeks and months ahead, we will be looking to our faculty for ideas and ways to bring our talents to bear on the enormous challenge of rebuilding these communities,” Hockfield wrote in a Sept. 13 letter to the community. Clay described his goal as coordinating information about “professional interests or expertise related to the hurricane and its aftermath and making this information available within the MIT community so that we can make the most effective use of our knowledge and skills.”

The chancellor is seeking information from faculty members in four main areas — personal expertise and interests; ongoing research or service activities relating to the hurricane and its aftermath or ideas for such activities; courses, workshops, symposia or ideas for ongoing educational activities on topics related to Katrina and contacts with organizations or academics in the Gulf Coast communities with whom MIT might collaborate.

Faculty responses will be posted on a section of the Katrina web site that will be accessible only to members of the MIT community.

“Our intent is to make it easier for people with similar interests to more easily find each other and develop joint projects. This is really an opportunity for ‘mind and hand’ to come together in helping our society recover and learn from this extraordinary event,” Clay wrote in his letter to the faculty, distributed by e-mail on Sept. 15.

For more information on MIT’s activities on behalf of the Gulf Coast’s recovery, go to the Katrina response web site, web.mit.edu/katrina/, which is updated on a continuing basis.

Katrina Response Advisory Group members are Clay, Rafael Bras (professor of civil and environmental engineering), Louis Fouché ’07, Alice Gast (vice-president and associate provost for research), Rachel Glennerster (executive director of the Policy Activity Lab), Louis Gibson (chair of the faculty), Daniel Hastings (director, Engineering Systems Division), Manny Krieger (professor of biology), Suzana Lisanti (publisher of the MIT homepage), Sally Susnowitz (director of the Public Service Center), Lawrence Vale (department head, Urban Studies and Planning) and Albert Wei (graduate student).

Professor offers lesson from storm response

Sarah H. Wright  
News Office

Resilient corporations — those that have survived and thrived despite disruption and disaster — have much to teach government agencies about how to prepare for crises like Hurricane Katrina, according to Yossi Sheffi, director of the MIT Center for Transportation and Logistics and professor of engineering.


In the Globe article, titled “Fixing Government After Katrina,” Sheffi contrasted organizational breakdown during the “largely avoidable tragedy” of the hurricane’s aftermath with corporate successes following similar disasters.

“Instead of taking decisive action, city, state and federal officials argued with one another, communications broke down, and too many civil servants, from New Orleans police officers to Louisiana state officials to FEMA directors, did not have the urgency or passion required,” he wrote.

By contrast, some companies that took decisive action have enjoyed business victories in the face of crisis and supply disruption, he noted. Dell Computers, he wrote, increased its market share while Apple “stumbled” after the 1999 Taiwan earthquake, and Chiquita recovered much faster than Dole after Hurricane Mitch, which devastated Latin America in 1998.

Both Dell and Chiquita were prepared with flexible supply chains, Sheffi wrote. But resilience is more than that. An MIT team studying resilient companies found “something in their DNA . . . a certain corporate culture that helped them survive and even thrive.”

According to Sheffi, the three major aspects of crisis-ready corporate culture are empowerment of front-line employees, constant communications and a company-wide sense of the “big picture.”

Front-line employees are close to the action and can assess what is needed; as a disruption develops there is usually not enough time to consult the usual chain of command,” Sheffi wrote.

And that chain must be both fluid and transparent. “Resilient enterprises communicate obsessively and ensure that they can operate as empowered to stop flight operations when they detect a problem. “Front-line employees are close to the action and can assess what is needed; as a disruption develops there is usually not enough time to consult the usual chain of command,” Sheffi wrote.

And that chain must be both fluid and transparent. “Resilient enterprises communicate obsessively and ensure that they can operate as empowered to stop flight operations when they detect a problem. “Front-line employees are close to the action and can assess what is needed; as a disruption develops there is usually not enough time to consult the usual chain of command,” Sheffi wrote.

Sheffi’s essay ends on a note of limited hope that the lessons of Katrina will lead to changes. “What has to be done is strikingly obvious — instill a radical change in organizational culture,” Sheffi declared.

Did you know?

Vice Adm. Thad W. Allen, who is now heading up the federal disaster relief effort in the wake of Hurricane Katrina, is an MIT graduate. Allen, who is chief of staff of the Coast Guard, received his M.S. from the Sloan School of Management in 1989.

STUDENTS

Continued from Page 1

...behind, White said her parents encouraged her. “They told me I need some consistency,” she said.

For White, coming to MIT made sense. A close high school friend is a senior at the Institute and White had visited her several times over the years.

White arrived on Sept. 11, moved into Bentley Hall and started her classes on Sept. 14. Since MIT classes started Sept. 7, White felt a little behind. “I think I am really going to enjoy my classes,” she said. “But it has been a lot of work just learning the lay of the land.”

Sophomore Shir Elany, a special visiting student from Tulane, arrived on Sept. 9. A mechanical engineering major from Lexington, Mass., Elany is familiar with Boston.

Still, she said, “Missing the first couple of classes was stressful, he said. Initially he was behind. “Things have started to get better, though,” Elany said after his first full week of classes.

Socially, the transition has been less jarring. Currently living in the Zeta Psi fraternity house, Elany has been impressed by the warmth of MIT students. “Everyone has been very welcoming,” she said.

Though he expects to see a number of differences between Tulane and MIT — “It will certainly be colder,” he said with a laugh — Elany said he expects to gain a lot from his brief time at the Institute. “This is a good opportunity for engineering,” he said.

Harris’ adjustment has been slower. “The classes are going to be pretty tough,” he said.

Since he arrived weeks after orientation, meeting people has been challenging. “People have been friendly,” he said. “But it is still a little rough.”

Despite the challenges, Harris is relieved that he has been able to stay in school for the semester and is grateful to MIT. “MIT is a great school,” said Harris. “I guess it had to take a hurricane for me to get in.”
Freshmen bring MIT ties to Kyrgyzstan, Mongolia

This is the second in a series of profiles of members of the freshman class.

Sasha Brown
News Office

Just five years ago, freshmen Meder Kamalov of Kyrgyzstan viewed coming to MIT as an impossible dream. “I thought there was no way for a normal person to take MIT,” Kamalov said. “I thought only geniuses got in.”

When Kamalov met a group of MIT students from Kazakhstan two years later, he listened to them talk about the campus. They sounded like he had heard more than once. But he still was not sure he would get in. “I didn’t think that people from our country could be accepted,” he said.

After applying, Kamalov waited anxiously for news. He knew that acceptance letters were mailed via DHL while the rejection letters came via regular mail. When he called DHL and confirmed that a package was on its way to his address, he was elated. “I was just staring and holding the phone,” he said. “I knew so many who applied and were rejected. I was prepared for that.”

Both Kamalov and Enkhmunkh Zurgaanjin, from Mongolia, hail from Central Asian countries that are new at the Institute. Both members of the class of 2009, they are proud to be the first citizens from their countries to attend MIT.

“There are a lot of people who don’t know about Mongolia,” said Zurgaanjin. “It is a very remote and unknown place.”

Though he had never been to the United States before, Zurgaanjin attended high school in England. He said the boarding school prepared him well for the challenges of a student at MIT.

Zurgaanjin spent a couple of days at the international student orientation prior to freshman orientation. “It was a nice way to start meeting people and be able to talk with them,” he said.

Some of the challenges Zurgaanjin sees in the year ahead are the same ones any college student faces.

“Say I am going to have to learn how to cook,” he said. Living in Senior House, there will be plenty of opportunities for him to make his own food.

For Kamalov, who had also never visited the United States, the food has been one of the biggest surprises. “When I tried it, I was surprised, but I really liked it,” said Kamalov, who said he has mostly eaten at Anna’s Taqueria and the food court in the student center.

Even before classes started, Kamalov knew he wanted to major in chemistry. “It’s my favorite subject,” he said. Though English is his fourth language, he can get enormous increases in toughness through design at multiple-length scales,” said Ortiz. “Understanding how the material is designed and functions at the smallest-length scales will be critical to learning how to create tough biomimetic synthetic composites.”

Replacing the weak building blocks of nacre with stronger materials — in a nanoscale sense — is one way to get enormous increases in toughness through design at multiple-length scales,” said Ortiz. “Understanding how the material is designed and functions at the smallest-length scales will be critical to learning how to create tough biomimetic synthetic composites.”

Seashells offer a lesson in armor design

Eve Downing
Institute for Soldier Nanotechnologies

The ocean is a perilous environment for a soft-bodied creature like a sea snail, so nature gives it an advanced nanostructured armor system that is stiff and strong yet lightweight. It’s called a shell.

Understanding the fundamental design principles of this armor system — nacreous layers in shells — may help engineers develop improved body armor systems for humans in perilous situations, like soldiers and police officers.

At MIT’s Institute for Soldier Nanotechnologies, researchers are studying the structure and mechanics of the tough inner layer of mollusk shells called “nacre” or mother-of-pearl, at extremely small, nanometer-length scales (a nanometer is a billionth of a meter) to unlock the secrets of nacre and other composite materials.

In an upcoming issue of the Journal of Materials Research, Professor Christine Ortiz of the Department of Mechanical Engineering and doctoral student Benjamin Bruet report that, with the help of new tools and techniques, they have started to unlock the secrets of nacre.

Professor of Materials Science Christine Ortiz, left, examines a seashell with graduate student Benjamin Bruet. Samples of the shell’s makeup appear on the screen. Ortiz and Bruet are researching the natural armor system used by shells.

“Each stone is like a small building block, if you will,” said Ortiz. “Some of these nanoscale materials are stacked on top of each other like bricks in a wall. From a distance it’s 10 millimeters thick, but if you zoom in, it’s just a lot of bricks put together.”

Although scientists have studied the properties of nacre at the macroscale and microscale, Ortiz says that very little is known about its behavior at the nanoscale, which is where structure and properties set the foundation for the material’s overall behavior.

“The team is currently studying can get enormous increases in toughness through design at multiple-length scales,” said Ortiz. “Understanding how the material is designed and functions at the smallest-length scales will be critical to learning how to create tough biomimetic synthetic composites.”

Replacing the weak building blocks of nacre with stronger materials — in a similar design — has the potential to yield much tougher composites for use in armor systems or structural applications like automobile panels or plane wings.

Even though the calcium carbonate is very weak and brittle on its own, one

Freshmen Enkhmunkh Zurgaanjin, above, and Meder Kamalov, left, are the first citizens from their countries to attend MIT. Zurgaanjin is from Mongolia. Kamalov is from Kyrgyzstan.

Seashells offer a lesson in armor design

Eve Downing
Institute for Soldier Nanotechnologies

The ocean is a perilous environment for a soft-bodied creature like a sea snail, so nature gives it an advanced nanostructured armor system that is stiff and strong yet lightweight. It’s called a shell.

Understanding the fundamental design principles of this armor system — nacreous layers in shells — may help engineers develop improved body armor systems for humans in perilous situations, like soldiers and police officers.

At MIT’s Institute for Soldier Nanotechnologies, researchers are studying the structure and mechanics of the tough inner layer of mollusk shells called “nacre” or mother-of-pearl, at extremely small, nanometer-length scales (a nanometer is a billionth of a meter) to unlock the secrets of nacre and other composite materials.

In an upcoming issue of the Journal of Materials Research, Professor Christine Ortiz of the Department of Mechanical Engineering and doctoral student Benjamin Bruet report that, with the help of new tools and techniques, they have started to unlock the secrets of nacre.

Professor of Materials Science Christine Ortiz, left, examines a seashell with graduate student Benjamin Bruet. Samples of the shell’s makeup appear on the screen. Ortiz and Bruet are researching the natural armor system used by shells.

“Each stone is like a small building block, if you will,” said Ortiz. “Some of these nanoscale materials are stacked on top of each other like bricks in a wall. From a distance it’s 10 millimeters thick, but if you zoom in, it’s just a lot of bricks put together.”

Although scientists have studied the properties of nacre at the macroscale and microscale, Ortiz says that very little is known about its behavior at the nanoscale, which is where structure and properties set the foundation for the material’s overall behavior.

“The team is currently studying can get enormous increases in toughness through design at multiple-length scales,” said Ortiz. “Understanding how the material is designed and functions at the smallest-length scales will be critical to learning how to create tough biomimetic synthetic composites.”

Replacing the weak building blocks of nacre with stronger materials — in a similar design — has the potential to yield much tougher composites for use in armor systems or structural applications like automobile panels or plane wings.

Even though the calcium carbonate is very weak and brittle on its own, one
MIT shines in Tech Review innovators list

Elizabeth Thomson
News Office

Three MIT faculty, one scientist and 11 alumni are among the TR 35, Technology Review’s compilation of the 35 best innovators under age 35. The honorees were selected by a panel of distinguished experts for their potential to profoundly impact the world. "The TR 35 is among the biggest honors that can be bestowed on a young innovator," said Jason Pontin, editor in chief of Technology Review.

This year only 35 awardees were chosen, a drop from 50 in 2003, due to the "technological recession" and "a downshift in the overall innovation pace," according to Pontin. "It’s a reflection of the economic climate," he said.

Among the TR 35, Technology Review recognized the work of several MIT faculty. Sweden-born, US-based Sengupta, 33, was cited for a drug-delivery device company that uses stem cells to grow treating agents, which inject into tumors. Each particle is essentially a balloon within a balloon, delivering a payload of drugs that are released in a specific area to destroy cancer cells.

According to Technology Review, these nanocells home in on cancers and then release toxic compounds. "These nanocells home in on cancers and then release toxic compounds," Technology Review noted. "Sengupta, 33, won for his work on simplifying the wireless sensor networks key to the remote monitoring of ‘everything’ from the habitat of an endangered bird species to a building’s response to a natural disaster, as cruise control or an earthquake," according to the magazine. He is currently applying the software developed to that end, called TinyDB, to "sensors in cars to monitor operating conditions and future car-steering rods."

Barzilay, 34, was cited for inventing Newsbletter, "a computer program able to recognize stories from different news services as being about the same basic subject, and then paraphrase elements from all of the stories to create a summary," Technology Review reported.

The MIT faculty to receive the award are Regina Barzilay and Samuel Madden, both assistant professors of electrical engineering and computer science, and Francesca Stellacci, an assistant professor in materials science and engineering. Shiladitya Sengupta, a postdoc at the Harvard-MIT Division of Health Sciences and Technology, was also honored.

Barzilay, 34, was cited for inventing Newsbletter, "a computer program able to recognize stories from different news services as being about the same basic subject, and then paraphrase elements from all of the stories to create a summary," Technology Review reported.

The MIT team built its test wall behind the MIT Museum on Massachusetts Avenue in Cambridge using a combination of 30 percent Boston Blue Clay mixed with sand and gravel. Twelve tons of this clay, common at depths of 30 to 60 feet in the metro Boston area, came from the excavation area of a new building at Harvard. The excavation firm, J.F. White, donated the clay to the MIT crew.

"The wall will serve as a long-term test of rammed earth in New England, allowing us to observe the way various soil types interact to control the wall’s behavior," said Joseph Dahmen, a graduate student in architecture who is leading the project. Dahmen has traveled extensively worldwide to study traditional and contemporary rammed-earth architecture, which is gaining popularity in many regions of the world, including the southwestern United States, California and even in areas with high rainfall and freezing temperatures like Boston, Dahmen said.

Rammed earth can be used as a substitute for concrete in structures that don’t need to withstand high forces. A rammed earth structure can withstand material stresses of up to 700 pounds per square inch, while standard concrete can take more than four times that, about 2,800 psi.

Dahmen says "the wall will serve as a long-term test of rammed earth in New England, allowing us to observe the way various soil types interact to control the wall’s behavior." In traditional construction techniques, workers used a large wooden block mounted on a handle. Once the clay has been fully packed and the form removed, a solid, monolithic wall remains. In "slip forming," the wooden formwork can be moved, enabling construction of large walls with a minimum amount of formwork, Dahmen said.

The earthen wall has one primary advantage over concrete — environmental sustainability, according to Dahmen and Ochsendorf. And, they point out, a building made entirely of rammed earth creates no disposal hazards when demolished.

The technique results in a wall with an "aesthetic beauty that reflects its natural origins," said Dahmen, who hopes the blue-gray wall will last indefinitely. "The texture contains subtle variations in color and density corresponding to the layering of soil during compaction, almost like sedimentary stone. Part of the appeal is that the material is massive but rather delicate; we expect that the surface will erode somewhat over time, registering the elements upon it. But that’s okay because that should not pose a problem."

"Parts of the Great Wall of China, which has been around for over 2,000 years, are built of rammed earth. Our project attempts to update this ancient environmentally sustainable building technique to test its relevance in the industrialized world," said Dahmen.

Muslim identity inspires new series of talks

The Center for Bilingual/Bicultural Studies (CBBS) is hosting a series of talks and events that explore the experience of "hyphenated" Muslim identities.

The overarching topic of the year’s offerings is "Emerging Muslim Identities in Diasporic Communities," and the series begins with a panel program titled "Muslims Worldwide under Age 35." There will be a question and answer session and reception concluding the program.

The overarching topic of the year’s offerings is "Emerging Muslim Identities in Diasporic Communities," and the series begins with a panel program titled "Muslims Worldwide under Age 35." There will be a question and answer session and reception concluding the program.

Recently on October 22, Franco-Moroccan filmmaker Ismail Ferroukhi will present his film, "Le Grand Voyage," which portrays a traditional North African father and his French-raised, thoroughly Westernized son as they travel from Europe to Morocco and reconcile their differences in route.

There will be a question and answer session with Ferroukhi after the film, which will screen at 7 p.m. in Room 26-100.

Other films in the CBBS series include "The Fond Kiss" (British/Pakistani on human rights in Pakistan) and "Head On" (Turkish/German/French on multiculturalism). Ferroukhi’s film portrays a traditional North African father and his French-raised, thoroughly Westernized son as they travel from Europe to Morocco and reconcile their differences in route.

There will be a question and answer session with Ferroukhi after the film, which will screen at 7 p.m. in Room 26-100.

Other films in the CBBS series include "The Fond Kiss" (British/Pakistani on human rights in Pakistan) and "Head On" (Turkish/German/French on multiculturalism)."
Space exploration calls for developing bold new concepts and open innovation; MIT has a range of initiatives aimed at fostering these efforts, according to the organizers of the MIT Enterprise Forum of Cambridge’s broadcast event slated for Thursday, Sept. 22.

“The Power of Revolutionary Thinking: What Today’s Scientists Can Teach You about Driving Innovation in Your Organization” will be broadcast live by Atlanta pub- lic television to MIT and MIT-EECS students, staff, and faculty, and will feature a panel of experts in the field of innovation.

Panelists include Robert Cassanova, director of the NASA Langley Research Center; John Edwards, development leader for the space elevator proj- ect; Penelope Boston, director of research for Complex Life Systems Research; and David Newman, MIT associate professor of aeronautics and astronautics.

The MIT Enterprise Forum broadcast will be free to join, with refreshments and includes a 6:30 p.m. keynote by Joe Parrish, president of Payload Systems, which provides science and engineer- ing services for spaceflight and terrestrial applications.

The broadcast is one of many educational programs fostered by the MIT Enterprise Forum Inc., a MIT alumni- association department, and its 25 chapters. For more information, visit enterpriseforum.mit.edu.

**Bustani seminars focus on Middle East**

The Emile Bustani Middle East Seminar at MIT will celebrate its 10th anniversary this fall with three lectures on contemporary Middle Eastern affairs. On Sept. 27, Professor Nils Güthe, visiting professor in the For- eign Languages and Literatures, from East- ern Hautes Études en Sciences Sociales in Paris will speak on “Arab Identity Without Arabism.” On Oct. 18, Ambassador Barbara Bodine, executive director of the Middle East Governance Initiative at the Harvard Kennedy School of Government, will deliver a lecture titled “Reflections on the Arab World: From Baghdad to Sanaa and Back.” On Nov. 8, Professor Fatma Muge Gocek of the Department of Sociology at the University of Michi- gan, Ann Arbor, will deliver a lecture titled “Turkey and the European Union: Questions of Recognition and Reconcilia- tion.”

**CLASSIFIED ADS**

**Members of the MIT community may submit one classified ad each issue. Ads can be resubmitted, but not two weeks in a row. Ads should be 10 words or less, and must be submitted in triplicate by e-mail to tdavids@mit.edu or mail to Classifieds, Rm 10-1700, Cambridge, Mass. 02139, on Wednesdays before publication.**

**FOR SALE**

**Snowblower, Craftsman, 9 horsepower, 6 speeds for moving to smaller digs & must give up supersize Hitachi 21” SuperScan 813 CRT-type monitor, $75. Effective Sept. 1, 2005, the mileage reimbursement rate at the Institute for the use of private automo- biles for business travel increased from 50.40 to 50.48 based on IRS recommendations. Travel ending on or after Sept. 1 will be reimbursed at the new rate. Travel ending on or before Aug. 31 will be reim- bursed at the old rate.**

**William Bottiglia dies at 92**

William Bottiglia, former head of the Department of Foreign Literatures and Linguistics and a distinguished scholar of French and Italian literature, died Aug. 19 at Avery Manor in Needham. He was 92.

Bottiglia, who joined the MIT faculty in 1958, specialized in Dante, the French Enlightenment and the philosophy of civilization. He was head of foreign literatures and linguistics from 1964 to 1973, when he transferred to MIT’s School of Management. At Sloan he was a professor of management and humanities until his retirement in 1991. He has the author of “Voltaire’s Candide: Analysis of a Classic,” and an article called “Dante: A New Vision of a Logical Approach,” published in the journal Italicia. He also edited and contributed an article to a four-volume philosophical novel titled Heroic Songs.

Before coming to MIT, Bot- tiglia taught at Princeton Uni- versity and at Ripon College.

He worked in industry from 1942 to 1947 and was general manager of J&S Tool Co. in East Orange, N.J., from 1947 to 1950.

Born in Bornenville, N.J., he was elected to Phi Beta Kappa during his junior year and received his Master of Arts cum laude in 1934. He earned his M.A. and Ph.D. from Princeton in 1935 and 1948, respectively, and belonged to the Phi Beta Kappa Society. A member of the Society of America Bottiglia was appointed an Officer in the Société des Grands Officiers de la Légion d’Honneur.

Bottiglia was the husband of the late Mildred (Mac- Donald) Bottiglia. He is survived by his daughter, Janet Bottiglia of Needham; a stepdaughter, Martha Morris of Ripon, Wis.; a sister, Adele Minnis of Bernardelle, N.J.; three grandchildren and three great-grandchildren.

**Fragoli vacuum bucket: 12 ft 5 in; 3 yr old; excellent condition.$100. Contact: fancr@mit.edu.**

**Grant proposals sought**

The Task Force on the Undergraduate Educa- tional Commons, in collaboration with the Office of the Dean for Undergraduate Education and the d’Arbeloff Fund for Excellence in Education, is calling for preliminary proposals for ambitious projects to enhance the first-year educational expe- rience of undergraduates.

The deadline for grant proposals is Sept. 26. All proposals should be submitted to the d’Arbeloff Grants Committee in care of Peggy Enders, PeggyEnders@mit.edu.

The d’Arbeloff Fund for Excellence in Educa- tion was established through a $10 million grant from Beatrice and John d’Arbeloff, in honor of their daughter, Sarah 1949 and focuses on projects that will enhance the educational experience of students.

Dean for Undergraduate Education Robert P. Redwain chairs the d’Arbeloff Grants Committee. For more information, visit web.mit.edu/darbeloff.

**For more information, visit web.mit.edu/darbeloff.**

**Hanging around**

Physics graduate students Shih-Tan Liu, left, and Christopher Wipf explore the art lottery exhibit at the MIT List Visual Arts Center in early September. Each year, MIT students can enter a lottery to borrow art from the List’s collection. Students can pick up their works today and tomorrow. The final distri- bution of artwork will take place Friday, Sept. 23.

**Housing**

**Vehicles**

**Positions for students with work-study eligibility**

Work one-on-one with students from Cambridge and the surrounding communities. Teaching duties to work directly with students working towards a GED or diploma, and to tutor in math and general reading.

**Redwine chairs the d’Arbeloff Grants Committee. For more information, visit web.mit.edu/darbeloff.**

**Mileage rate increases**

**William Bottiglia**

**Essex School Volunteers seeks two or more volunteers to work directly with students working towards a GED or diploma, and to tutor in math and general reading.**

**Students interested in positions with the Cambridge School Volunteers should contact Mariabalestrieri@justastart.org.**

**Grant proposals sought**

The Task Force on the Undergraduate Educa- tional Commons, in collaboration with the Office of the Dean for Undergraduate Education and the d’Arbeloff Fund for Excellence in Education, is calling for preliminary proposals for ambitious projects to enhance the first-year educational expe- rience of undergraduates.

The deadline for grant proposals is Sept. 26. All proposals should be submitted to the d’Arbeloff Grants Committee in care of Peggy Enders, PeggyEnders@mit.edu.

The d’Arbeloff Fund for Excellence in Educa- tion was established through a $10 million grant from Beatrice and John d’Arbeloff, in honor of their daughter, Sarah 1949 and focuses on projects that will enhance the educational experience of students.

Dean for Undergraduate Education Robert P. Redwain chairs the d’Arbeloff Grants Committee. For more information, visit web.mit.edu/darbeloff.

**For more information, visit web.mit.edu/darbeloff.**

**Mileage rate increases**

Effective Sept. 1, the mileage reimbursement rate at the Institute for the use of private automo- biles for business travel increased from 50.40 to 50.48 based on IRS recommendations. Travel ending on or after Sept. 1 will be reimbursed at the new rate. Travel ending on or before Aug. 31 will be reim- bursed at the old rate.

**William Bottiglia**

**William Bottiglia**
Oh my gourd!

Lynn Heinemann
Office of the Arts

It’s a bumper crop, but if you bump these veggies too hard, they’ll break.

The MIT Glass Lab’s fifth annual Great Pumpkin Patch will sprout Sept. 23-24 on Kresge Oval with more than 1,000 unique, hand-blown glass pumpkins and gourds.

The Great Glass Pumpkin Patch begins with a preview reception (no sales) on Friday, Sept. 23, from 5 to 8 p.m. On Saturday, Sept. 24, between 10 a.m. and 5 p.m., visitors of all ages are invited to stroll through the “pumpkin patch” and pick favorites to purchase. In case of rain, the sale will be held on Sunday, Sept. 25.

The glass pumpkins were created by students and instructors in MIT’s Glass Lab, where members of the MIT community learn and practice the art of glass blowing. Proceeds from the event benefit the lab, an art program connected with MIT’s Department of Materials Science and Engineering.

Pumpkin-making is overseen by glass artist Peter Houk, currently in residence at the MIT Glass Lab. Blowing pumpkins teaches basic glass-blowing skills and the importance of teamwork, Houk says. But it’s also a lot of fun, with food and music helping to create a party atmosphere. “Everyone gets a kick when the whole team’s working well,” says Houk. “It’s fun to see another pumpkin appear every five minutes or so.”

For more information, call x3-5309.

Glass pumpkins now in season

1,000 Pumpkins to be made for this year’s sale
5 Hours it took for pumpkins to sell out last year
12 Pumpkins broken last year

$25 Cost of least expensive pumpkin
$500 Cost of most expensive pumpkin

Lecturers work on play

Music and Theater Arts lecturer Kim Mancuso will direct the Plimoth Theater Company’s production of “N (Bonaparte),” a play by fellow lecturer Laura Harrington, at the Plaza Theatre, located in the Boston Center for the Arts (539 Tremont St., Boston) through Saturday, Oct. 8.

The play centers on Napoleon’s “Arts (539 Tremont St., Boston), through Saturday, Oct. 8.

The play is available by calling (617) 933-8600 or visiting www.mit.edu/arts. Performances are Thursday through Saturday at 8 p.m., Sunday at 2 p.m. Tickets cost $25-$40 for students, seniors and groups of more than 10, student rush $10. Full-price advance tickets are available by calling (617) 994-6600 or visiting www.BostonTheatreScene.com.

Wodkačko named finalist

Krzysztof Wodkačko, professor of visual arts in the Department of Architecture, has been selected (with his artistic collaborator Julian Bionder) as one of six finalists for the Flight 567 Memorial in Queens, N.Y. That crash, which occurred on Nov. 12, 2001, was the second worst aviation accident in American history, killing all 260 on board plus five on the ground.

Wodkačko and Bionder are also currently working on the Memorial to the Abolition of Slavery in Nantes, France, which was commissioned by the city after a competition. It is the first national memorial in France (and in Europe) dealing with slavery and abolition of this scale. This project is slated to be built by 2007-2008.

Design magazine launched

Former Media Lab denizen Charlotte Burgess Aubern and Wendy Ju (S.M. 2001) have launched a new design magazine, Ambidextrous, at the Stanford Design Studies and West streets, New York, N.Y.) through Sunday, Oct. 16. Cameras capture the constant movements along the bridge in real time. The images are then processed by computer and projected as ephemeral drawings on the walls to the bridge. “Time Translations” is on view daily from 8 a.m. to 8 p.m.

A reception for the installation will be held on Thursday, Sept. 22, from 5 p.m. to 7 p.m. at One World Financial Center Lobby (200 Liberty St., N.Y.). To attend, email events@brookfieldproperties.com.

“Translations” offers new view of New York

Mark Jay Mirsky, a senior studying biology, will present “An Evening of Vietnamese Guitar” on Friday, Sept. 9 at 8 p.m. in the MIT Coffeehouse on the third floor of the Student Center.

His band, Living Incense, will perform “The Five Venoms Style,” an original piece composed by Vu for electric “Vietnamized” guitar, drums and electronics. There will also be a demonstration of classical guitar by Vo Thanh Binh and Friends.

Vu, the 2004 recipient of the List Foundation Fellowship for his project entitled “The Five Venoms Style: A Celebration of Mutant Culture,” pays homage to the late Hong Kong film director Chang Cheh, best known for the martial arts film “Five Deadly Venoms” (1977). The film was influential for both its artistry and its unusual mystery plot, which featured five suspects who can only be identified through their kung fu styles: Centipede, Snake, Scorpion, Lizard and Toad.

Vu’s “The Five Venoms Style” consists of five movements, each characterizing one of these animals and martial arts styles.

Vu’s project goals, he says, are twofold. He aspires to celebrate the global exchange of culture and to find his own musical voice, one that Vu calls “iden-tifiable Vietnamese regardless of the many other influences that are present.”

Rarely independent, often invaded and dominated, the Vietnamese have faced long periods of concerted efforts by foreign powers to subvert our culture,” Vu writes. “However, because we have always found a way to remain defiantly Vietnamese, however covertly, we always eventually regained our sovereignty.”

In the United States, there is more benign pressure to assimilate, and less of a connection with his cultural roots. He says “we have to learn what is available and familiar to us”—electric guitar, rock music and interaction with cultural products from around the world. But, ultimately, he says his aim is to “produce something that is Vietnamese but honest to the community of which we are a contributing part.”

Vietnamese guitar show strikes at ‘5 Venoms’

Dang Vu, a senior studying biology, will present “An Evening of Vietnamese Guitar” on Friday, Sept. 9 at 8 p.m. in the MIT Coffeehouse on the third floor of the Student Center.

A reception for the installation will be held on Thursday, Sept. 22, from 5 p.m. to 7 p.m. at One World Financial Center Lobby (200 Liberty St., N.Y.). To attend, email events@brookfieldproperties.com.
Go Online! For complete events listings, see the MIT Events Calendar at: http://events.mit.edu.


HURRICANE KATRINA BENEFIT
Concert to benefit victims of Hurricane Katrina — donations encouraged.

GREAT GLASS PUMPkins
1,000 handcrafted glass pumpkins, created by artists from the MIT Glass Lab. Proceeds benefit the MIT Glass Lab.

SUDAN CRISIS AND HUMAN SECURITY
Talks by Francis Deng, Center for Displacement Studies at Johns Hopkins University

SUNDAY October 1

Tu eres mi colonial
Video and photography installation by Luis Berrios-Negron (Es), first-prize winner of the 2006 Schönbrunn Prize in the Visual Arts. 24 hours. Weisner Student Art Gallery 253-7019.

Mind & Hand: The Making of 'Scientists & Engineers'
MIT Museum exhibit. Noon-5 p.m. MIT Museum. 253-4444.

“iquarium”
A virtual fluid flow display. 9-8 p.m. Hart Nautical Gallery. 253-5942.

MIT Flutings by MIT Composers
Sue-Ellen Harnaran, Toleriran, flutes and guest performers Peter Child's Duet for flute and percussion. 7:30 p.m. Killian Hall. 253-9800.

SEPTEMBER 21-25

MIT EVENT HIGHLIGHTS

SEPTEMBER 21-25

MONDAY September 25

Demonstrations by Professor Walter Lewin. Free with an MIT ID. 2-4 p.m. Meet at MIT Museum to walk over to off-site physics laboratory. 452-2111.

TUESDAY September 26

MITHAS (MIT Heritage of South Asia) in cooperation with Sangam. $19, MITHAS members $14, students and MIT students free. 4 p.m. Wong Auditorium. 258-7971.

WEDNESDAY September 27

International Folk Dancing (participatory)
Lobdell Dining Hall. 253-FOLK.

THURSDAY September 28

SUNDAY September 25

“MITHAS Month”
Shahid Parvez, world-renowned sitar star, will perform at Wang Auditorium at 4 p.m. Sunday. Tickets are $18, $14 for members of MIT Heritage of South Asia, $10 for students and free for MIT students.

WEDNESDAY September 21

Sanskrit Class
At a name’s worth, 2005. Boston, MA.

Jiu-Jitsu class
Self Defense

FRIDAY September 23

Emerging Muslim Identities in Diaspora Communities
Panel presentation moderated by Arunabha Banerjee. 3-5 p.m. Room 3-149, 258-9410.

THURSDAY September 22

An Evening MIT social: Guitar & the band living Insec performance the Five Venom, Bâlî, an original composition for electric guitar, drums and electronics. 8 p.m. MIT Coffeehouse. 253-2341.

SUNDAY September 25

KATRINA BENEFIT
HURRICANE

SEPTEMBER 21–25

MITHAS (MIT Heritage of South Asia) in cooperation with Sangam. $19, MITHAS members $14, students and MIT students free. 4 p.m. Wong Auditorium. 258-7971.

SEPTEMBER 21–25

Go Online! For complete events listings, see the MIT Events Calendar at: http://events.mit.edu.


HURRICANE KATRINA BENEFIT
Concert to benefit victims of Hurricane Katrina — donations encouraged.

GREAT GLASS PUMPkins
1,000 handcrafted glass pumpkins, created by artists from the MIT Glass Lab. Proceeds benefit the MIT Glass Lab.

SUDAN CRISIS AND HUMAN SECURITY
Talks by Francis Deng, Center for Displacement Studies at Johns Hopkins University

SUNDAY October 1

Tu eres mi colonial
Video and photography installation by Luis Berrios-Negron (Es), first-prize winner of the 2006 Schönbrunn Prize in the Visual Arts. 24 hours. Weisner Student Art Gallery 253-7019.

Mind & Hand: The Making of ‘Scientists & Engineers’
MIT Museum exhibit. Noon-5 p.m. MIT Museum. 253-4444.

“iquarium”
A virtual fluid flow display. 9-8 p.m. Hart Nautical Gallery. 253-5942.

MIT Flutings by MIT Composers
Sue-Ellen Harnaran, Toleriran, flutes and guest performers Peter Child’s Duet for flute and percussion. 7:30 p.m. Killian Hall. 253-9800.

SEPTEMBER 21–25

Go Online! For complete events listings, see the MIT Events Calendar at: http://events.mit.edu.


HURRICANE KATRINA BENEFIT
Concert to benefit victims of Hurricane Katrina — donations encouraged.

GREAT GLASS PUMPkins
1,000 handcrafted glass pumpkins, created by artists from the MIT Glass Lab. Proceeds benefit the MIT Glass Lab.

SUDAN CRISIS AND HUMAN SECURITY
Talks by Francis Deng, Center for Displacement Studies at Johns Hopkins University

SUNDAY October 1

Tu eres mi colonial
Video and photography installation by Luis Berrios-Negron (Es), first-prize winner of the 2006 Schönbrunn Prize in the Visual Arts. 24 hours. Weisner Student Art Gallery 253-7019.

Mind & Hand: The Making of ‘Scientists & Engineers’
MIT Museum exhibit. Noon-5 p.m. MIT Museum. 253-4444.

“iquarium”
A virtual fluid flow display. 9-8 p.m. Hart Nautical Gallery. 253-5942.

MIT Flutings by MIT Composers
Sue-Ellen Harnaran, Toleriran, flutes and guest performers Peter Child’s Duet for flute and percussion. 7:30 p.m. Killian Hall. 253-9800.