disorder. Discovery of the cause familial amyotrophic lateral sclerosis (ALS), a fatal neurological disease, is crucial to our ability to program and make a positive impact in Central Massachusetts and across the state and region.”

A cornerstone of the institution’s strategic investment in clinical and translational research, the newly formed Department of Quantitative Health Sciences will play an integral role in the University of Massachusetts five-campus Center for Clinical and Translational Science (CCTS). In addition to developing its own population health-oriented research programs, the new department will serve as a key function in providing methodological support and medical informatics expertise to collaborative projects.

A clinical epidemiologist and internist who has published extensively in the field of health care quality measurement and outcomes research, Kiefe earned her doctorate in mathematics from the State University of New York at Stony Brook, her medical degree from the University of California, San Francisco, and completed residency training in internal medicine at the University of Minnesota Hospitals. Currently, she is a member of the American Heart Association’s Council on Epidemiology and has served on multiple NIH and VA scientific advisory and review panels. Kiefe is co-editor in chief of Medical Care, a leading scientific journal in health services research. Her primary research interests are in health disparities and measuring and improving health care.

“I am excited to be joining UMass Medical School, a dynamic and collaborative institution on a steep upward trajectory,” said Kiefe. “I am particularly energized by the unique role QHS will have in linking the innovative research our Medical School is known for with comprehensive, state-of-the-art clinical care. I look forward to working with the school’s unique resources to build a new model for the interaction between quantitative reasoning and the improvement of health care.”

**UMMS researchers isolate gene mutations in patients with inherited ALS**

Researchers at UMass Medical School have discovered a new gene whose mutations cause familial amyotrophic lateral sclerosis (ALS), a fatal neurological disorder. Discovery of the FUS/TLS-gene mutation, which accounts for about five percent of inherited ALS cases, is described in the February 27, 2009, issue of Science. “This discovery discloses new types of molecular defects that kill motor neurons and at the same time implicates defective pathways previously identified in other genetic forms of ALS,” said senior study investigator Robert Brown Jr., MD, DPhil, chair and professor of neurology. “Understanding the mechanism that triggers motor neuron death leads to new cellular models of ALS and ultimately accelerates the search for a treatment for this devastating disease.”

ALS is a progressive, neurodegenerative disorder affecting the motor neurons in the central nervous system. As motor neurons die, the brain’s ability to send signals to the body’s muscles is compromised. This leads to loss of voluntary muscle movement, paralysis and, eventually, death from respiratory failure. The cause of most cases of ALS is not known. Approximately 10 percent of cases are inherited. In 1993, a team of researchers led by Dr. Brown discovered the first gene linked to familial ALS, a protein antioxidant known as superoxide dismutase, or SOD1.

The current Science study details the discovery of the FUS/TLS-gene mutation among four members of a family from a small Cape Verde island. The familial relationship between the patients’ grandparents suggested that the disorder was a result of a recessive gene inherited from both parents. Study of several candidate genes on chromosome 16, which has been linked to ALS in previous studies, revealed a single mutation in the FUS/TLS gene on both copies of chromosome 16 in the affected family members. Three asymptomatic family members had just a single copy of the FUS/TLS mutation, and no mutations were found in a control group of nearly 1,500 North American individuals.

While it is not certain how the mutation of the FUS/TLS gene causes ALS, the cellular functions it controls within the motor neurons are remarkably similar to those found in other gene mutations known to cause ALS. Lucie Bruijn, PhD, senior vice president of research and development for the ALS Association, said, “These findings will open up a promising new avenue of investigation with the potential of developing more promising therapies for ALS.”

**Catarina Kiefe, PhD, MD**

Catarina I. Kiefe, PhD, MD, a highly regarded scientist in the fields of health care quality measurement and outcomes research, has been recruited as chair of the newly created Department of Quantitative Health Sciences (QHS). Dr. Kiefe comes to UMMS from the University of Alabama at Birmingham School of Medicine, where she was professor of medicine and biostatistics, director of the Division of Preventive Medicine and founding director of the Center for Outcomes and Effectiveness Research.

Robert Brown Jr., MD, DPhil

Kiefe appointed chair of Quantitative Health Sciences

**Get in Focus**

Have a story idea, a faculty, student or staff achievement, or a campus-wide event for the calendar? Send it to the Focus editor at focus@umassmed.edu

**What’s Inside**

- Building healthy athletes
- Raising TB awareness

**March 2009**
Raising TB awareness

On Thursday, March 12, UMass Medical School, in partnership with Eagle Peak Media and WSBE Rhode Island PBS, will present a program focused on increasing understanding of tuberculosis (TB). Most people not working in health care believe TB is a disease of the past, particularly in the United States, but it remains one of the three leading causes of infectious disease and death worldwide.

They hope that the film will drive those in the scientific and health care communities, particularly those in the early stages of their careers, to aggressively fight the epidemic.

Set against the backdrop of the Zambarano State Hospital on Walbaum Lake in Rhode Island, “On the Lake” illuminates the impact of TB on patients at Zambarano as well as on other sanatoriums throughout the United States.

The screening will be followed by a Q&A with the filmmakers, G. Wayne Miller and David Betcen of Eagle Peak Media, immediately follow.

We are tobacco free

It has been almost a year since the tobacco free policy was implemented for the UMass Medical School (including South Street) and UMass Memorial Medical Center campuses. The policy was adopted because, as a health care leader, we are committed to creating a healthy and safe environment for all who come to our campuses—smoking and use of tobacco is a leading preventable cause of death and disease in the United States. The policy prohibits smoking and the use of tobacco products of any kind in or on any UMass property, whether owned, leased or assigned, inclusive of buildings, garages, grounds or other spaces. Smoking is also prohibited on adjacent grounds and properties.

Smoking is also prohibited on adjacent grounds and properties.

The policy was widely embraced by nonsmokers and smokers (many of whom have quit), and for the most part, compliance has been widespread. Many members of the UMMS and UMass Memorial community have helped others understand and comply with the policy.

As with most endeavors that require changes in behavior, the policy has met with some resistance among smokers who are unwilling or unable to change their tobacco habits. Some individuals continue to smoke on or near campus and are in clear violation of the spirit of the policy. As a result of these continued violations, enforcement activities will be stepped up and employees found using tobacco products on campus will be subject to progressive discipline as the policy provides.

Implementing the tobacco free policy was a tremendous undertaking that has resulted in health improvements among patients, visitors and members of the UMMS/UMass Memorial community. Smokers who would like assistance with quitting should call the Employee Assistance Program at 508-856-1327.

UMMS partners with Tongji University

UMass Medical School and Tongji University School of Medicine (TUSM) in China signed a Memorandum of Understanding last month that will foster the establishment of educational exchange programs and promote development of joint studies, research and training. The goal of the partnership is to create a framework for academic and clinical exchanges involving faculty, post-doctoral fellows, students and clinicians. Representing each institution at the ceremonial signing that took place on the Worcester campus were UMass President Jack M. Wilson, UMass Chancellor Michael F. Collins and TUSM President Gang Pei, as well as members of both institutions who will serve as liaisons on the UMMS-TUSM Collaboration Coordination Committee.

_UMMS partners with Tongji University

---

**News of the University of Massachusetts Medical School**

**Most people not working in health care believe TB is a disease of the past, particularly in the United States, but it remains one of the three leading causes of infectious disease and death worldwide.**

**Raising TB awareness**

On Thursday, March 12, UMass Medical School, in partnership with Eagle Peak Media and WSBE Rhode Island PBS, will present a program focused on increasing understanding of tuberculosis (TB). Most people not working in health care believe TB is a disease of the past, particularly in the United States, but it remains one of the three leading causes of infectious disease and death worldwide.

They hope that the film will drive those in the scientific and health care communities, particularly those in the early stages of their careers, to aggressively fight the epidemic.

Set against the backdrop of the Zambarano State Hospital on Walbaum Lake in Rhode Island, “On the Lake” illuminates the impact of TB on patients at Zambarano as well as on other sanatoriums throughout the United States.

The screening will be followed by a Q&A with the filmmakers, G. Wayne Miller and David Betcen of Eagle Peak Media, immediately follow.

**We are tobacco free**

It has been almost a year since the tobacco free policy was implemented for the UMass Medical School (including South Street) and UMass Memorial Medical Center campuses. The policy was adopted because, as a health care leader, we are committed to creating a healthy and safe environment for all who come to our campuses—smoking and use of tobacco is a leading preventable cause of death and disease in the United States. The policy prohibits smoking and the use of tobacco products of any kind in or on any UMass property, whether owned, leased or assigned, inclusive of buildings, garages, grounds or other spaces. Smoking is also prohibited on adjacent grounds and properties.

The policy was widely embraced by nonsmokers and smokers (many of whom have quit), and for the most part, compliance has been widespread. Many members of the UMMS and UMass Memorial community have helped others understand and comply with the policy.

As with most endeavors that require changes in behavior, the policy has met with some resistance among smokers who are unwilling or unable to change their tobacco habits. Some individuals continue to smoke on or near campus and are in clear violation of the spirit of the policy. As a result of these continued violations, enforcement activities will be stepped up and employees found using tobacco products on campus will be subject to progressive discipline as the policy provides.

Implementing the tobacco free policy was a tremendous undertaking that has resulted in health improvements among patients, visitors and members of the UMMS/UMass Memorial community. Smokers who would like assistance with quitting should call the Employee Assistance Program at 508-856-1327.

---

**UMMS partners with Tongji University**

UMass Medical School and Tongji University School of Medicine (TUSM) in China signed a Memorandum of Understanding last month that will foster the establishment of educational exchange programs and promote development of joint studies, research and training. The goal of the partnership is to create a framework for academic and clinical exchanges involving faculty, post-doctoral fellows, students and clinicians. Representing each institution at the ceremonial signing that took place on the Worcester campus were UMass President Jack M. Wilson, UMass Chancellor Michael F. Collins and TUSM President Gang Pei, as well as members of both institutions who will serve as liaisons on the UMMS-TUSM Collaboration Coordination Committee.

---

**achievements**

- William C. Olszow, PhD, associate professor of physiology, recently served as a reviewer on the National Institutes of Health Review Panel for the Specialized Cooperative Centers Program in Reproduction and Fertility, which ranks the scientific merit of each of the projects within the center’s applications as well as the overall merit of each center in order to establish priorities for funding by the NIH.
- Hugh Stih, MD, assistant professor of family medicine & community health, has been invited to be a member of the Interim Design Advisory Committee for the Better Oral Health for Massachusetts Coalition. The committee, comprised state oral health leaders from dentistry, pediatrics, MassHealth, Health Care for All, the Oral Health Foundation and others, is charged with developing a state plan for oral health promotion.
- Following are faculty who have joined UMMS as professors or associate professors or who have been promoted to those ranks, as reported by the Office of Faculty Affairs:
  - William Corbet, MD, promoted to clinical associate professor of medicine
  - Anthony Imbalzano, PhD, promoted to professor of cell biology
  - Michael Mitchell, MD, promoted to clinical associate professor of pathology
  - Paul O’gorman, PhD, promoted to research associate professor of cell biology
  - Kelly Smith, PhD, promoted to research associate professor of cell biology
  - Eva Szomolanyi-Tsuda, MD, promoted to associate professor of pathology

---

**Distant Place,** the acclaimed feature-length documentary about the tuberculosis epidemic in America in the 1960s and globally today. The film premiered last month in Woonsocket and will be shown on PBS later this month.

A Q&A with the filmmakers, G. Wayne Miller and David Betcen of Eagle Peak Media, immediately follow.

---

**We are tobacco free**

It has been almost a year since the tobacco free policy was implemented for the UMass Medical School (including South Street) and UMass Memorial Medical Center campuses. The policy was adopted because, as a health care leader, we are committed to creating a healthy and safe environment for all who come to our campuses—smoking and use of tobacco is a leading preventable cause of death and disease in the United States. The policy prohibits smoking and the use of tobacco products of any kind in or on any UMass property, whether owned, leased or assigned, inclusive of buildings, garages, grounds or other spaces. Smoking is also prohibited on adjacent grounds and properties.

The policy was widely embraced by nonsmokers and smokers (many of whom have quit), and for the most part, compliance has been widespread. Many members of the UMMS and UMass Memorial community have helped others understand and comply with the policy.

As with most endeavors that require changes in behavior, the policy has met with some resistance among smokers who are unwilling or unable to change their tobacco habits. Some individuals continue to smoke on or near campus and are in clear violation of the spirit of the policy and the letter of the policy. As a result of these continued violations, enforcement activities will be stepped up and employees found using tobacco products on campus will be subject to progressive discipline as the policy provides.

Implementing the tobacco free policy was a tremendous undertaking that has resulted in health improvements among patients, visitors and members of the UMMS/UMass Memorial community. Smokers who would like assistance with quitting should call the Employee Assistance Program at 508-856-1327.

---

**UMMS partners with Tongji University**

UMass Medical School and Tongji University School of Medicine (TUSM) in China signed a Memorandum of Understanding last month that will foster the establishment of educational exchange programs and promote development of joint studies, research and training. The goal of the partnership is to create a framework for academic and clinical exchanges involving faculty, post-doctoral fellows, students and clinicians. Representing each institution at the ceremonial signing that took place on the Worcester campus were UMass President Jack M. Wilson, UMass Chancellor Michael F. Collins and TUSM President Gang Pei, as well as members of both institutions who will serve as liaisons on the UMMS-TUSM Collaboration Coordination Committee.

---

**achievements**

- William C. Olszow, PhD, associate professor of physiology, recently served as a reviewer on the National Institutes of Health Review Panel for the Specialized Cooperative Centers Program in Reproduction and Fertility, which ranks the scientific merit of each of the projects within the center’s applications as well as the overall merit of each center in order to establish priorities for funding by the NIH.
- Hugh Stih, MD, assistant professor of family medicine & community health, has been invited to be a member of the Interim Design Advisory Committee for the Better Oral Health for Massachusetts Coalition. The committee, comprised state oral health leaders from dentistry, pediatrics, MassHealth, Health Care for All, the Oral Health Foundation and others, is charged with developing a state plan for oral health promotion.
- Following are faculty who have joined UMMS as professors or associate professors or who have been promoted to those ranks, as reported by the Office of Faculty Affairs:
  - William Corbet, MD, promoted to clinical associate professor of medicine
  - Anthony Imbalzano, PhD, promoted to professor of cell biology
  - Michael Mitchell, MD, promoted to clinical associate professor of pathology
  - Paul O’gorman, PhD, promoted to research associate professor of cell biology
  - Kelly Smith, PhD, promoted to research associate professor of cell biology
  - Eva Szomolanyi-Tsuda, MD, promoted to associate professor of pathology
UMMS partners with Special Olympics for Healthy Athletes

When UMass Medical School Chancellor Michael F. Collins was approached last year by Special Olympics of Massachusetts (SOMA) President and CEO Robert Johnson about forming a partnership, he agreed immediately, understanding that such a partnership could be invaluable to improving the lives of individuals with intellectual disabilities. In December, the Medical School and SOMA signed an Affiliation Agreement outlining several opportunities for collaboration between the two organizations, all centered on the Special Olympics Healthy Athletes Initiative to improve health care access and quality for individuals with intellectual disabilities. “We are transforming ourselves from a sports organization into a health organization,” explained Johnson.

Through the affiliation, UMMS will support the initiative goal of improving the health of Special Olympics athletes by conducting screenings at competitions and other health-related events, making referrals to local health practitioners when needed; training students, health care professionals and others about the needs and care of people with intellectual disabilities; conducting research on their health status and needs; and advocating for improved health policies and programs. In turn, UMMS participants will learn about the health needs of Special Olympics athletes while reaching out to an underserved population.

Underscoring the importance of the partnership to the institution, the chancellor charged Commonwealth Medicine with establishing a team to develop a Healthy Athletes action plan. Projects include developing SOMA Health Promotion Teams to address issues of tobacco and substance abuse; nutritional and physical fitness; and the health of at-risk athletes.

The affiliation agreement outlines opportunities for collaboration between UMMS and Special Olympics of Massachusetts to improve health care access and quality for individuals with intellectual disabilities.

Robert Johnson, President and CEO
Special Olympics of Massachusetts

March Employee of Distinction Award

Vitals
Name: Nina Bhabhalia
Research Associate
Program in Gene Function and Expression

Year started: 2003
Hometown: Boylston

Professionally Speaking
Keeping refrigerators running, centrifuges spinning and shelves stocked with fresh batches of re-agents ready to grow the next tissue culture may sound routine, but these activities are essential to keeping the scientific investigations in the Program for Gene Function and Expression (PGFE) running and are among the accomplishments for which Research Associate Nina Bhabhalia has been named March Employee of Distinction. “Because of her continuous effort to maintain our laboratory environment in the best condition, we can focus on our research,” wrote Fumihiko Urano, MD, PhD, associate professor in PGFE.

Having taken years away from laboratory work to raise her family after earning a microbiology degree, Bhabhalia over-sees the PGFE laboratory with the same practicality and organization it takes to run a home. Her nominations praised Bhabhalia for going above and beyond the call of duty, but from her perspective, ensuring that everyone has what they need when they need it is simply part of her responsibilities. Bhabhalia is happy to make herself available, whether for regularly scheduled activities or in response to special requests. “I see the dedication of the scientists and the students and am inspired to be a part of the bigger mission,” she said.

Points of Pride
Bhabhalia facilitates maintenance of the PGFE equipment through her strong relationships with vendors and suppliers, especially the Medical School’s Facilities and Environmental & Building Services departments. “We get a lot of inhouse support with moves, installations and repairs,” she said.

She manages the PGFE budget like she manages the lab, negotiating prices and researching new vendors to get the most purchasing power for grant dollars. Noting that the PGFE is an internationally diverse group, and having herself come to the United States from India as a young woman, Bhabhalia reflected, “It helps to share experiences we had when we first came to this country.”
OCMECC Means Community

2009 campaign update

Once again, UMass Medical School employees demonstrated their support and concern for the neediest members of our community by donating generously to the 2009 Commonwealth of Massachusetts Employees Charitable Campaign (OCMECC).

The results of your goodwill! Approximately $350,000 contributed as of February 4 and employee participation at its highest rate ever—46 percent. In fact, 27 individual departments had participation rates of 80 percent or higher, which was an increase from last year.

Also notable is the amount the School of Medicine student auction raised—nearly $30,800. The donation will be shared by the Make-A-Wish Foundation and the Worcester Youth Center, a United Way funded program.

To those who were able to donate, your participation in OCMECC—particularly in the midst of challenging economic times—truly exemplifies your commitment to advancing the health and well-being of our community.

On the move

The Financial Aid and Registrar’s offices will be moving from their current location near the Credit Union to the corridor where GSN, GDB and Office of Research are located. In order to facilitate the move, the offices will be closed on March 12, 13, 16 and 17.

■ The Lamar Souter Library, in collaboration with the Diversity and Equal Opportunity Office, is hosting the National Library of Medicine’s traveling exhibit, Opening Doors, which chronicles the history of African American surgeons. The exhibit will be on display from Sunday, Feb. 1, through Friday, March 27, in the library.

■ On Thursday, March 12, UMass, in partnership with Eagle Peak Media and WSBE Rhode Island PBS, will present a program focused on increasing understanding and awareness of TB. Taking place in the Faculty Conference Room from 1 to 4 p.m., the event features an advanced screening of the documentary On the Lake: Life and Love in a Vertical Place and a Q&A with the filmmakers, as well as presentations by TB experts.

For details, please see the related article on page 2.

■ The tenth annual Primary Care Days Conference will be held Thursday, March 12, and Friday, March 13, at the Doubletree Hotel in Worcester. The conference is designed for physicians, physician assistants, nurse practitioners and pharmacists new to primary care, or those needing continuing education credits. For more information, visit umassmed.edu/primarydays.

■ Sponsored by the UMass Memorial Department of Medicine & Community Health, the Department of Medicine Division of General Internal Medicine, Boston University and the UUMS Office of Continuing Medical Education.

■ The Lamar Souter Library’s Artist in Residence Series presents Perspectives, featuring the artwork of UMass Worcester students. The show is on display on the first floor of the library from Monday, March 2, through Friday, April 10, with an opening reception on Monday, March 9, at 5 p.m. For more information contact Cindy Last via global e-mail.

■ The Seven Hills Symphony will hold their spring concert on Sunday, March 8, at 4 p.m. The concert at the First Unitarian Church in Worcester will feature performances by the young musicians who won the Concerto Competition that Seven Hills sponsored last fall. For more information, contact Joanna Chauvette via global e-mail or visit www.shsymphony.org.

■ See the date! The third annual Commonwealth Medicine Academic Research Conference, Transforming Health Care: The Impact of Translational Research, will be held Thursday, April 16, at the Doubletree Boston/Westborough Hotel. The conference will feature a keynote presentation by John Saultz, MD, assistant dean of the School of Medicine, Oregon Health and Science University, and a special roundtable discussion on Massachusetts legislative initiatives, chaired by Chancellor Michael F. Collins. Continuing education credits will be offered. For more information, visit www.umassmed.edu/council/CVPRAC/Academic_Conference.html.

■ Team leaders and walkers needed! The American Heart Association 2009 Central Mass Heart Walk is scheduled for Saturday, May 2, at East Park in Worcester. Registration begins at 9 a.m., followed by opening ceremonies at 9:30 a.m., with the walk beginning at 10 a.m. There are 1-, 2- and 4-mile walk routes available, all of which are handicap and stroller accessible. If you are interested in becoming a team leader or a walker, send a note to Glady McRell via global e-mail or call her at ext. 6-4400. For more information, visit www.worcesterheartwalk.org or call 508-935-3941.

On the calendar

■ Harrison G. Ball, MD, professor of obstetrics & gynecology and radiation oncology, American Geriatrics Society/John A. Hartford Foundation Project, Geriatrics for Specialists Initiative: Geriatric Education for Specialty Residents Program, two years, $40,000

■ Daniil N. Boltov, PhD, assistant professor of biochemistry & molecular pharmacology, National Institutes of General Medical Sciences, Conformational Cycles of Molecular Chaperones, one year, $309,482; recommended for one more year, $309,482

■ Marcus P. Cooper, MD, assistant professor of medicine, National Institutes of Diabetes and Digestive and Kidney Disease, Functional Analysis of PGC1-a Holo-Complex in Mitochondrial Biogenesis and Endothelial Cell Phenotype, one year, $409,375; recommended for three more years, $1,479,844

■ Stephen J. Glock, PhD, research associate professor of pathology, National Cancer Institute, 2D PET Recontruction Using Generalized Natural PISA, one year, $163,750; recommended for one more year, $197,100

■ Michael R. Green, MD, PhD, Howard Hughes Medical Institute Investigator, the Lemb and Sarah Adams Chair in Genetic Research and professor of molecular medicine and biochemistry & molecular pharmacology, Damon Runyon Cancer Research Foundation, Elucidation of Signal Transduction Pathways Controlling Oncogene-induced Senescence and their Protective Roles against Melanoma and Breast Cancer, three years, $140,000

■ John F. Kearney, MD, professor of medicine and physiology, National Heart, Lung and Blood Institute, Mitochondrial Biogenesis and Mitochondrial Cell Phenotypes, one year, $409,375; recommended for three more years, $1,2 million

■ Michelle A. Kolb, PhD, associate professor of cancer biology and molecular genetics & biochemistry, National Institutes of Allergy and Infectious Diseases, Rip Proteins in Innate Immune Signaling, one year, $368,344; recommended for four more years, $1,479,844

■ Colleen E. McKay, MA, instructor in psychiatry: American Legacy Foundation, Incorporating Tobacco Cessation Activities in a Psychosocial Rehabilitation Program, one year, $99,992

■ Joel Richter, PhD, professor of molecular medicine, National Institute of General Medical Sciences, Polyadenylation and Translational Control, one year, $87,335; recommended for one more year, $44,865

■ Jie Song, PhD, assistant professor of orthopedics & physical rehabilitation and cell biology, American Society for Bone and Mineral Research USA, A New Therapeutic Strategy Towards the Repair of Hard-to-Heal Skeletal Lesions, one year, $55,000

■ Andrew Tupper, PhD, assistant professor of psychiatry: National Institute of Alcohol Abuse and Alcoholism, Neuronal Nicotinic Acetylcholine Receptors and the Response to Alcohol, one year, $342,819; recommended for four more years, $1.5 million

■ Bronwella Taylor, MD, PhD, research assistant professor of medicine: FSU Global Research Foundation, Defining the Mechanism Controlling Muscle-specific Gene Expression in FSND, one year, $320,000

Editor: Ellie Castano
Editorial staff: Andrea Reddington, Lisa Dyer, Alison Duffy, Jim Fenouël, Sandra Gees, Laura Hilgar, Mark Shichon
Photographer: Robert Carlin Photography; UMMS Technology and Media Services

Office of Public Affairs and Publications
University of Massachusetts Medical School
55 Lake Avenue North, Worcester, MA 01605-0002
508-856-2000
focus@umassmed.edu