

focus

State funds stem cell bank and registry at UMMS

There is widespread agreement in the scientific community that human embryonic stem cell research holds enormous promise for discovering therapies, perhaps even cures, for some of the most debilitating diseases. Now, with more than \$8.2 million in funding from the Board of the Massachusetts Life Sciences Center (MLSC) to launch the Massachusetts Human Embryonic Stem Cell (hESC) Bank and the Massachusetts hESC Registry at UMass Medical School, the institution is primed for national and international prominence in the disbursement of stem cell lines and the dissemination of stem cell information. Closer to home, the funding firmly establishes the leadership role UMMS is destined to play in making Massachusetts Governor Deval L. Patrick's ambitious Life Sciences Initiative a reality.

"We are so gratified by the Center's confidence in UMass Medical School's ability to bring both of these critical projects to fruition," said Interim Chancellor Michael F. Collins. "With the expertise of our faculty in basic science research involving stem cells, and faculty and administrative commitment to facilitate the integration of stem cell research in academic institutions and the private sector, we have what it takes to develop the programs and infrastructure to support national and international stem cell investigations."

The registry and bank are two separate but complementary infrastructure programs that are fundamental to the advancement of today's cutting-edge biomedical research.

The stem cell registry is a key to advancing the field of hESC research by aiding the free and timely flow of information between providers of lines and researchers,

and between researchers and the broader life sciences community. "Our goal for the registry is to go beyond the listing to include detailed information about the lines," explained Gary Stein, PhD, the *Gerald L. Haidak, MD, and Zelda S. Haidak Professor of Cell Biology* and chair of cell biology. Tapped to direct the new facilities, Dr. Stein has already recruited two new assistant professors of cell biology to staff the registry; they are charged with identifying and compiling information about NIH-approved and other stem cell lines, including current and future publications.

The bank will ensure quality control for each line held, as well as catalogue each line's known properties. In addition, the bank will train visiting as well as UMMS investigators and extend its activities to K-12 science education outreach.

Beyond advancing potentially lifesaving research, centralized, comprehensive

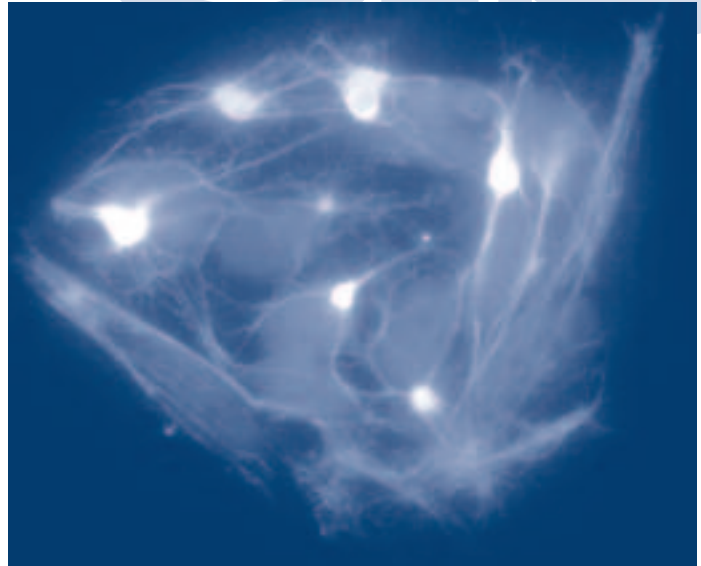


Image courtesy of John Butler, Cell Biology

Funding for a stem cell bank and registry at UMass Medical School poises the institution for prominence in the disbursement of stem cell lines and the dissemination of stem cell information. Pictured above are H9 hES cells from the lab of Jeanne Lawrence, PhD, professor of cell biology.

stem cell facilities at UMMS offer enormous potential for economic development in Massachusetts. "Agreements are already being configured with several biotechnology and pharmaceutical companies that want to have their lines included in the registry," Stein noted. "We believe the UMMS stem cell enterprise will help attract and retain stem cell researchers and companies in Massachusetts." ■

Fauci to give Commencement address

On Sunday, June 1, Anthony S. Fauci, MD, director of the National Institute of Allergy and Infectious Diseases (NIAID), will deliver the Commencement address to graduating students of the School of Medicine, Graduate School of Biomedical Sciences and Graduate School of Nursing during the 35th Commencement exercises.

"It is a great pleasure to announce Dr. Fauci as this year's Commencement speaker," said Interim Chancellor Michael F. Collins. "For nearly 40 years at the National Institutes of Health (NIH), Dr. Fauci has made important contributions to basic and clinical research that have shaped our understanding of how to prevent, diagnose and treat infectious and immune-mediated diseases."

Internationally renowned for these advances, Fauci pioneered the field of human "immunoregulation" by defining the precise mechanisms by which immunosuppressive agents modulate the immune response. He has made seminal contributions to the understanding of how the AIDS virus destroys the body's defenses, helping pave the way for treatment and prevention strategies.

From 1983 to 2002, Fauci was the 13th most-cited scientist in the world; he was the world's tenth most-cited HIV/AIDS researcher from 1996 to 2006. He serves as a key advisor to the White House and Department of Health and Human Services on global AIDS issues and on projects to increase medical and public health preparedness against emerging infectious diseases.

As director of the NIAID, Fauci supervises the Institute's extensive research portfolio to prevent, diagnose and treat infectious diseases, including HIV/AIDS, influenza and illnesses caused by potential bioterrorism agents. He also serves as chief of the NIAID Laboratory of Immunoregulation.

Throughout his years of service to the NIH, Fauci has received prestigious

awards for his scientific achievements, including the National Medal of Science, the Mary Woodard Lasker Award for Public Service and the George M. Kober Medal of the Association of American Physicians. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the Institute of Medicine and other professional societies, including the American Society for Clinical Investigation, the Infectious Diseases Society of America and the American Association of Immunologists. He serves on the editorial boards of several scientific journals and is an editor of *Harrison's Principles of Internal Medicine*.

At the Commencement ceremony, UMass Medical School will bestow an honorary degree upon Fauci for his numerous significant contributions to basic and clinical research. ■



Anthony Fauci, MD

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



Rooney named ACS Junior Research Fellow

When MD/PhD student Timothy Rooney learned last year that the American Cancer Society was soliciting submissions for the 2007 Betty Lea Stone/American Cancer Society Junior Research Fellowship, he seized the opportunity. “The fellowship was a chance for me to pursue research, and it was an opportunity I couldn’t pass up,” said Rooney.

The award allows first-year medical students in New England to work with a principal investigator on a project with direct application to cancer prevention or treatment. Rooney received \$4,500 from the New England Division of the American Cancer Society for his research in the lab of Sharon B.

“Tim immediately became engaged in the work we were doing and began reading the literature in the field. Better still, he was able to comprehend the literature and begin to propose interesting experiments,” said Dr. Cantor. “I was very impressed by Tim. It’s always fun to have a student with so much energy and new ideas.”

Prior to receiving the award, Rooney reviewed a list of faculty members who had worked with medical students on summer research projects in the past and approached Cantor about the fellowship. “I found her research to be relevant to medicine, and it introduced me to the field of DNA repair,” said Rooney. While in Cantor’s lab, Rooney researched how cancer cells can use DNA repair pathways to become resistant to chemotherapy drugs. He said if



Photo courtesy of the American Cancer Society

MD/PhD student Timothy Rooney participated in research in the lab of Sharon Cantor, PhD, during his Betty Lea Stone/American Cancer Society Junior Research Fellowship.

“This fellowship allowed me to participate in research that I may have never been able to do anywhere else.”

Timothy Rooney

Cantor, PhD, assistant professor of cancer biology. For 10 weeks, Rooney worked on Dr. Cantor’s project that examines cancer’s resistance to chemotherapy drugs, *Targeting DNA Repair for Cancer Therapy*.

researchers can find a way to block specific DNA repair pathways, chemotherapy-resistant cancer cells will become sensitive to the drugs.

During his fellowship, Rooney, who enrolled at UMMS as a medical student in 2006 and is now a second-year student, realized he wanted to continue research and was accepted in the

MD/PhD program during the summer. “This fellowship allowed me to participate in research that I may have never been able to do anywhere else,” he said. “My summer research fellowship was not just for the sake of knowledge—hopefully, the research will lead to treatments for many different types of cancers.” ■

First Research Administration Retreat held

The growth in research activities at UMass Medical School over the past 10 years is remarkable, with grant funding increasing from \$62 million in 1995 to \$175 million in 2006. As external funding has grown, so has the role of research administrator.

Responding to the need for more training and education for the individuals who fill these roles, the Office of the Vice Chancellor for Operations and the Office of Research recently sponsored the first-ever Research Administration Retreat. The two-day retreat, attended by about 100 participants, offered large group presentations and break-out sessions covering a range of topics, from funding types and sources to grant proposal development, submission, compliance and reporting. The program was created by a committee representing UMMS administration, financial services, research funding services and

academic departments. The sessions were all presented by UMMS employees, a clear demonstration of the expertise within the institutional community. The retreat’s featured speaker was Geoff Grant, vice president for research administration at Partners HealthCare. Interim Chancellor Michael F. Collins gave a presentation about the life sciences initiative and Vice Chancellor for Research John L. Sullivan spoke about clinical and translational science at UMMS.

“The success of the retreat reinforced our plans for developing a Research Administrator Certificate program so that employees responsible for overseeing grant administration have access to frequent and ongoing formal training and educational opportunities,” said Chief Financial Officer Nancy Vasil and Senior Administrator Paulette Goeden. ■

achievements

Following are faculty who have joined UMMS as professors or associate professors or who have been promoted to those positions, as documented by the Office of Faculty Administration:

- **Gary Schneider**, PhD, appointed professor of molecular medicine
- **Timothy Emhoff**, MD, appointed clinical associate professor of surgery

- **Maryann Davis**, PhD, promoted to research associate professor of psychiatry
- **Jean A. King**, PhD, promoted to professor of psychiatry



Recycling program expanded

Beginning this month, UMass Medical School will expand its Worcester campus recycling program to include glass, plastic and cans, in addition to paper recycling that began in 2005. The expanded program is the result of efforts by members of the UMMS Sustainability Committee, which explores and initiates sustainable practices for the institution, using the Governor’s 2007 Energy Policy and the State Sustainability Program as guidelines.

In January new 32-gallon, green recycling containers from Allied Waste Recycling will be placed in all the elevator lobbies of the Medical School, alongside the 96-gallon, blue recycling containers for paper that are already present. Acceptable items for the new bins include plastic and glass soda, juice and water bottles; metal cans; yogurt containers; aluminum trays and foil; and plastic items with the recycling mark 1 through 7, among other items. Items that cannot be recycled in these bins are plastic bags, light bulbs, aerosol cans and Styrofoam. A full list of acceptable

and unacceptable items will be posted above the recycling container and on the UMMS intranet (inside.umassmed.edu/recycling).

The expanded recycling program will further reduce the volume and weight of the institution’s trash and will also result in cost savings. At the University campus, UMass Memorial will also be expanding its recycling to include glass, plastic and cans and is scheduled to rollout these new recycling options after the first of the year.

“The Sustainability Committee has been exploring cost-effective options for expanding recycling efforts on the Worcester campus since the committee was formed. We’re thrilled to be able to initiate this program, which furthers our efforts to minimize our impact on the environment,” said Facilities Manager John Baker, who also heads the Sustainability Committee. “Now it’s up to the members of the UMMS community to take the initiative to the next step. Based on the requests we’ve received for a program like this, we’re confident it will be successful.”

GSN brings home lessons learned in Ghana

The Graduate School of Nursing has extended its reach halfway around the world with an international initiative that reaps benefits at home as well as in Ghana. Last summer, GSN associate professor Rosemary Theroux, PhD, and assistant professor Robin Toft Klar, DNSc, spent two weeks in Ghana researching women's self-care practices at a health clinic newly established by the Women's Trust, a non-governmental organization that supports social and economic empowerment for women and girls living in poverty.

An extension of work they had done in Worcester, Drs. Theroux and Klar's African project was launched by a serendipitous coincidence. As director of the UMMS interdisciplinary clerkship for first-year GSN and School of Medicine students, Theroux chose to focus on the problem of high infant mortality in Worcester's African immigrant community for the clerkship's community service learning project. Clerkship participants, in cooperation with the Worcester Infant Mortality Reduction Task Force and the Worcester Healthy Start Initiative, sought to understand and address the problem of high infant mortality—defined as death before age one—among Ghanaian immigrants to Worcester. Their findings pointed to the roots of high infant mortality lying in cultural practices and beliefs instilled in Ghana that resulted in delayed prenatal care and subsequent premature and low weight births.

Family nurse practitioner and GSN post-master's certificate alumna Linda Messenger, MS, RN, had just partnered with the Women's Trust when she read about the clerkship's work with Ghanaian women in a recent issue of the UMMS magazine *Vitae*.

Messenger called Theroux and Klar and invited them to join her on her next trip to Ghana to participate in the Women's Trust's first-ever medical clinic in the village of Pokuase. The Trust's first health initiative under Messenger's direction—screenings to detect hypertension in women of childbearing age to help combat both maternal and infant mortality—dove-tailed perfectly with the community clerkship's research in Worcester. Working with local health care providers, the American nurses provided free services to 430 patients over six days.

In addition to collecting data regarding women's self care in Pokuase, Theroux and Klar provided clinical services to local women, screening for high blood pressure (hypertension is a leading cause of premature birth for Ghanaian women), testing for anemia and assessing for previous treatment of malaria. "The people we met in Ghana were so appreciative of our work, and the Ghanaians here in Worcester are appreciative of what we are doing in their homeland," said Klar.

"Global work is very fulfilling," added Theroux. "We feel we're help-



A public health nurse and midwife administers a shot to an infant held by his mother at the Women's Trust clinic in the village of Pokuase in Ghana.

Rosemary Theroux, PhD, (pictured) and Robin Toft Klar, DNSc, shared their research findings from Ghana at a forum for GSN and other local nursing students.



ing people and making a difference."

Theroux and Klar are returning to Pokuase this month, and have plans for future work linking Worcester with Ghana. They are seeking funding for additional projects and ultimately hope to bring students with them. "Our international work is truly transnational," said Theroux.

"It evolved from our local work and now has local applications for our students and our patients," concluded Klar. ■

In addition to collecting data regarding women's self care in Pokuase, Theroux and Klar provided clinical services to local women.

employees infocus

January Employee of Distinction Award

Vitals

Nursing Home Initiative Case Manager Team
UMMS Commonwealth Medicine

- Shelly Bellvé**, case manager
- Christine Burbick**, case manager
- Dianne Crossley**, case manager
- Lisa Hackett**, case manager
- Deb Hayes**, case manager
- Patricia Lazarek**, case manager
- Aimee Murray**, team leader
- Bonnie Scott**, case manager
- Mary Stewart**, case manager
- Jo Ann Wrobel**, case manager

Date originated: 1999

Central office: Shrewsbury

Professionally Speaking

For some Massachusetts adults with disabling conditions such as cerebral palsy, spinal cord injuries, mental health illnesses and blindness, the Nursing Home Initiative (NHI) case manager team plays a vital role. Care at a nursing facility is often the only option available to these individuals because their conditions fall outside of the state's current community service agencies



or resources. NHI case managers support these individuals and the nursing staffs who provide care to them by arranging specialized services to increase independence and improve quality of life.

With diverse human services backgrounds in social work, gerontology, rehabilitation counseling, occupational therapy and interpretation for the deaf, the team's clinical insights are critical in addressing each individual's needs. "The case man-

agers put a face to each person and treat each of them as their number one customer," wrote nominator Karen Williams, director of the Disability and Community Services (DCS) unit of Commonwealth Medicine, of which NHI is a component. "They work with providers to do whatever is necessary to make each individual's life as full as possible."

Using a person-centered approach to care planning, case managers determine the services that will most benefit a particular individual, such as referral for community living, rehabilitation, vocational training and therapeutic programs, among others. They also coordinate services with multiple provider agencies, nursing facilities, guardians and families.

Points of Pride

"Dedication, commitment and persistence drive and define the NHI case managers," noted Williams. In the program's first year, some nursing facilities were hesitant to accept the role of case managers, but over time, the NHI team has developed strong relationships with nursing facility staff, enhancing their roles as caregivers for younger adults with disabling conditions. "The team is now seen as a resource, with nursing facility staff contacting NHI case managers for support, including requests to assist with other residents," said Williams.

Calendar

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information

Strategic Planning update

To learn about the activities of the Strategic Planning Task Force and its work groups, visit umassmed.edu/strategicplanning. The new Web pages include work group rosters and meeting schedules and minutes and will include future reports.

Tobacco Free Update

Phase I of the Tobacco Free initiative calls for the UMass Medical School Worcester campus and Shrewsbury South Street campus and UMass Memorial Medical Center (University, Memorial and Hahnemann campuses) to become completely tobacco free on May 27, 2008. This includes all buildings, grounds and parking facilities at each of these sites, including Farmhouse, One Biotech, Two Biotech, Anderson House and the Shaw Building.



■ Emily Ferrara, assistant professor of family medicine & community health, will read from her newly published collection of poetry, *The Alchemy of Grief*, on Wednesday, Jan. 16, at 5 p.m. in the Rare Book Room of the Lamar Soutter Library. Ferrara received the 2006 Bordighera Poetry Prize for the manuscript of her book, which was published simultaneously in English and Italian in 2007. A book signing will follow the reading.

■ In celebration of Martin Luther King Jr. Day, UMMS will hold its 20th Annual Tribute to the Reverend Martin Luther King Jr. on Wednesday, Jan. 16, from 11:30 a.m. to 1 p.m. in the Arthur and Martha Pappas Amphitheatre (Amphitheatre I). The program will feature a keynote address about volunteerism and lunch will be served. For event details, visit www.inside.umassmed.edu.

■ Healthy Living, an interactive eight-week course focused on building skills for implementing a healthy life, will be offered on eight consecutive Mondays, beginning Jan. 28, in two separate sessions: 9 to 11:30 a.m. and 6 to 8:30 p.m. (plus one full-day session). The course will be led by clinical psychologist Sarah Reiff-Hekking, PhD, and will cover healthy eating, physical activity and stress and time management and offer guidance and support for improving physical and psychological health. Space is limited and registration is required. For more information, contact Sue Druker at 6-5529 or via global e-mail.

■ The ninth annual Primary Care Days Conference will be held Thursday, March 13, and Friday, March 14, at the Hoagland-Pincus Conference Center in Shrewsbury. The conference is designed for physicians, physician assistants, nurse practitioners and physicians-in-training specializing in general medicine, family medicine, pediatrics, geriatrics and ob-gyn. Physicians and nurses who register by Jan. 31 will receive a discount off the full registration fee. For details about the conference and fees or to register, visit www.umassmed.edu/cme/events.

■ The Office of Continuing Education and the Center for Mindfulness are co-sponsoring the sixth annual international scientific conference "Integrating Mindfulness-Based Interventions into Medicine, Health Care and Society" on Wednesday, April 9 through Sunday, April 13, at the Crowne Plaza Hotel in Worcester. Conference participants will have the opportunity to interact with a pioneering group of scientists, clinicians and educators presenting approaches and findings about the connections between neuroscience, medicine, healing, meditation and the mind. Participants who register by Feb. 18 will receive a \$50 discount off the full registration fee. For more information, visit www.umassmed.edu/Content.aspx?id=41258.

■ On Tuesday, Feb. 5, Susan M. Reverby, PhD, professor of women's studies at Wellesley College and historian of American women, medicine and nursing, will be the featured speaker for Black History Month. Dr. Reverby's current research focuses on the infamous Tuskegee Syphilis Study. The event will take place at noon in the Faculty Conference Room.

grants infocus

□ **Mitchell S. Albert**, PhD, professor of radiology: *NRA/Research Opportunities in Space Life Sciences 1996*, National Aeronautics and Space Administration, one year, \$57,922.

□ **Robert A. Baldor**, MD, professor of family medicine & community health: *Residency Training in General and Pediatric Dentistry*, Department of Health and Human Services, Health Resources and Services Administration, one year, \$151,919; recommended for two more years, \$283,473.

□ **Jean E. Boucher**, PhD, assistant professor of nursing: *Symptom Instrument for Chemotherapy-induced Diarrhea*, National Institute of Nursing Research, one year, \$242,688.

□ **Vivian Budnik**, PhD, professor of neurobiology: *Genetic Strategies to Elucidate APP Function during Synapse Formation*, Alzheimer's Association, three years, \$240,000.

□ **Sharon B. Cantor**, PhD, assistant professor of cancer biology: *Bach1/FANCD1 Checkpoint, Recombination and Chemoresistance*, National Cancer Institute, one year, \$308,750; recommended for four more years, \$1.2 million.

□ **Angela Dolganiuc**, MD, PhD, instructor in medicine: *Alcohol Disrupts TLR4 Signaling in Lipid Rafts*, National Institute on Alcohol Abuse and Alcoholism, one year, \$233,594; recommended for one more year, \$192,969.

□ **Terence R. Flotte**, MD, executive deputy chancellor and dean of the School of Medicine and professor of pediatrics: *Spliceosomal-mediated RNA Trans-splicing Gene Repair of Pi*Z Mutant Alpha-1 Antitrypsin*, Alpha-1 Foundation, two years, \$70,000.

□ **Patricia Franklin**, MD, MBA, MPH, associate professor of orthopedics & physical rehabilitation and family medicine & community health: *Perioperative Intervention to Improve Post-TKR Support and Function*, National Institute of Arthritis and Musculoskeletal and Skin Diseases, one year, \$488,364; recommended for three more years, \$1.2 million.

□ **Robert J. Goldberg**, PhD, professor of medicine: *Community Surveillance for Heart Failure*, National Heart, Lung and Blood Institute, one year, \$771,346; recommended for four more years, \$3.1 million.

□ **Jerry H. Gurwitz**, MD, the *Dr. John Meyers Professor of Primary Care Medicine*, and professor of medicine and family medicine & community health: *Improving Post-hospital Medication Management of Older Adults Through Health IT*, Agency for Healthcare Research and Quality, one year, \$385,984; recommended for two more years, \$813,968.

□ **Stephen N. Jones**, PhD, associate professor of cell biology and cancer biology: *International Mdm2 Workshop IV*, National Cancer Institute, one year, \$15,000.

□ **Michelle A. Kelliher**, PhD, associate professor of cancer biology: *Rip Proteins in Innate Immune Signaling*, National Institute of Allergy and Infectious Diseases, one year, \$406,250.

□ **Martin G. Marinus**, PhD, professor of biochemistry & molecular pharmacology: *DNA Mismatch and Double-Strand Break Repair*, National Institute of General Medical Sciences, one year, \$320,000; recommended for three more years, \$926,250.

□ **Gerald A. Schwarting**, PhD, professor of cell biology: *Glycoconjugates in Olfactory Cell-Cell Interactions*, National Institute on Deafness and Other Communication Disorders, \$308,125; recommended for four more years, \$1.2 million.

□ **Leslie M. Shaw**, PhD, associate professor of cancer biology: *The IRS Proteins and Herceptin Resistance*, USA Med Research ACQ Activity, two years, \$731,250.

□ **Rossella G. Tupler**, MD, PhD, research assistant professor of molecular medicine: *A Model to Develop Therapeutic Strategies for FSHD*, National Institute of Arthritis and Musculoskeletal and Skin Diseases, one year, \$355,180; recommended for four more years, \$1.4 million.

focus

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