

Research For Life

at the
 Maine Medical Center Research Institute

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Welcome to the first issue of Research For Life, a newsletter to highlight ongoing biomedical research and education programs at our research facilities in the greater Portland area. We wish you a happy new year!

Message from the Scientific Director

This past year has seen many changes at Maine Medical Center Research Institute. We have seen steady growth in our Graduate education programs with many of our students achieving candidacy for the Ph.D. degree from the University of Maine. We have participated in the growth and development of the Institute for Molecular Biophysics (IMB), a cooperative venture



Robert Friesel, Ph.D.

between MMCRI, the University of Maine, and the Jackson Laboratory in Bar Harbor. The goals of the IMB are to bring advanced imaging techniques including nanotechnology to cell biology, and to visualize processes such as cell growth, cell movement and changes in nuclear architecture. Many collaborative projects have been initiated between IMB and MMCRI scientists that will come to fruition in 2005 and beyond. MMCRI has increased external collaborations including many with Dartmouth Medical School and the Univ. New Hampshire. These collaborations strengthen our scientific programs and foster additional grant opportunities. The Mouse Transgenic and Magnetic Resonance Imaging Core will take delivery of a new small animal MRI scanner in early 2005 and construction of new facilities to house this instrument are well underway. With the completion of a new strategic plan for research, MMCRI is expecting another phase of growth in 2005, which will further establish MMCRI as world class research center with areas of emphasis on cardiovascular biology, cancer, and musculoskeletal disorders. Together with the Center for Clinical and Translational Research and the Center for Regenerative Medicine, the Center for Molecular Medicine anticipates a productive and exciting new year.

We are pleased to announce the appointments of Dr. R. Friesel as Scientific Director and Dr. J. Himmelfarb as Director of the newly established Center for Clinical and Translational Research.

Center for Clinical and Translational Research

For many years, clinical and translational research had been steadily growing, and currently, virtually every major division and department at Maine Medical Center is engaged in an active research program. To foster growth in clinical and translational research, MMCRI founded the Center for Clinical and Translational Research. The mission of the CCTR is to provide all of the infrastructure requirements necessary to foster and enhance clinical investigation, and to develop close ties with other MMCRI centers including the Centers for Molecular Medicine and Regenerative Medicine. Initiatives within the CCTR already include



Jonathan Himmelfarb, M.D.

the development of courses and workshops for clinical and translational investigators. Other services that we are developing include epidemiology, biostatistics and study design support for clinical investigation, grant writing support, and a clinical research core laboratory. We anticipate that over time, the close relations between other centers at MMCRI and the CCTR will foster an ever-growing effort at translating basic science discoveries into improvements in clinical medicine.

New Magnetic Resonance Imaging Facility



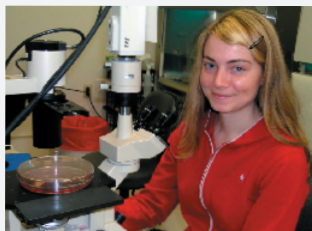
If you have ever had a sports or skiing injury to your knee, you may have experienced an MRI to scan the soft tissues to look for damage. Our scientists will be applying these techniques to our disease models starting in 2005 when we complete our facilities for an MRI facility. MRI allows us to non-invasively examine anatomy, blood flow, metabolism, and tissue growth and repair. This is a major technological advance in support our research programs, and will be a regional resource to other scientists in the New England area.

Health Tip: High cholesterol is a significant risk factor for coronary artery disease, even more so for women compared to men. Ask your physician to check your cholesterol level to complement a healthy lifestyle.

To join our mailing list, contact Barbara Peaslee at (207) 885-8122 (peaslb@mmc.org) To help support our research mission, contact Rebecca Doucet at (207) 662-2925 (doucer@mmc.org)

Recent interns comment on their research experiences at MMCRI

“Having completed my undergraduate degree in Biology at Dartmouth College and Medical School at the University of Connecticut, I am now in my third year of Internal Medicine Training at Maine Medical Center. In order to broaden my education during medical residency, Dr. Spicer has accepted me into his lab for a research project to study the ability of melanoma and breast cancer cells to invade and metastasize. The experience in the lab, of asking scientific questions and collecting data to answer them, complements the clinical work I do in my typical training. Scientific research is the cutting edge of new knowledge and is essential to providing better care for patients. I hope to apply the skills I learn in this project to academic pursuits in the rest of my career.”



– Diane Sliwka, M.D.,
research rotation with
Douglas Spicer, Ph.D.



“I’ve always been interested in stem cell biology, so when I heard about the opportunity to visit for a day at the Research Institute, I thought the experience would be a

good one.”

–Matthew Collins, senior, Yarmouth High School, hosted by Stephen Bellum, Ph.D.



“As an undergraduate at the Univ. Maine Farmington, much of my course and research background was related to environmental science. I was interested in pursuing an internship at Maine Medical Center Research Institute to better understand microbiology in the context of medical research. My research interests in environmental science have always related to human impact on the environment and this internship provided me with an opportunity to explore how environmental factors may relate to human health.”

– Michael Robert, UMaine at Farmington,
Class of 2004, Academic intern with Lucy Liaw, Ph.D.



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