

## New doctoral program looks to promote the bench-to-bedside link

**N**ew doctoral program coming soon to a medical school near you!” At least that’s how the marketing flyer might read.

DMS is developing a Ph.D. program, called the Program in Experimental and Molecular Medicine (PEMM), to focus on translational research—bringing discoveries quickly from the lab bench to the bedside.

There has been a growing realization by the biomedical community of a disconnect between discoveries made in the laboratory and their translation into practical applications for patients. “One of the reasons we have not been able to move things forward more efficiently is that we don’t have the workforce that . . . understands how to do this,” explains PEMM’s director, Murray Korc, M.D.

**Idea:** Traditionally, Ph.D. scientists have been trained in basic research and M.D.’s in patient care. A few individuals have worked in between to turn lab findings into treatments or preventive strategies. “The idea for PEMM is to help contribute to the pool of individuals who are trained in the basic sciences and who also understand the concept of clinical investigations, clinical trials, how to advance discoveries more quickly, how to translate them into something that will benefit everybody,” says Korc, who also chairs the Department of Medicine.

PEMM will have five tracks:

## FACTS & FIGURES

### Melancholy baby

National changes in obstetrics, due to liability risks

9.2%

Percentage of U.S. ob-gyns who have decreased the number of deliveries that they do

22%

Percentage who have decreased the amount of high-risk obstetric care that they provide

14%

Percentage who no longer practice obstetrics at all

14.8%

Percentage who no longer offer VBAC (vaginal birth after a cesarean)



The obstetrical environment at DHMC

1,166

Number of births at DHMC in 2004

54

Number of individuals with a full-time primary faculty appointment in the DMS Department of Obstetrics and Gynecology

“We believe that vaginal birth is best for the great majority of women, including those who have previously experienced cesarean birth.”

Excerpt from the department’s “Philosophy of Care”

83%

Percentage of women who attempted a VBAC at DHMC in 2004-05 who had a successful vaginal birth

SOURCES: THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS’ MEDICAL LIABILITY SURVEY (AS CITED IN AMERICAN MEDICAL NEWS), THE 2004 DHMC ANNUAL REPORT, THE DMS FACULTY DATABASE, AND THE DHMC WEBSITE

cancer biology, molecular pharmacology and toxicology, systems biology, vascular biology, and neuroscience.

**Track:** All first-year PEMM students will take a core course and do three research rotations with faculty members of their choosing. Then students will select one lab in which to conduct their thesis research and one of the five tracks to concentrate in; they’ll also take classes specific to their track.

Like DMS’s Molecular and Cellular Biology (MCB) graduate program, PEMM will be an umbrella program that spans several disciplines and provides vigorous training in the basic sciences. However, the PEMM core course will focus on human disease—teaching skills that will facilitate translational research and covering such topics as biostatistics and the design of clinical trials. Korc sees PEMM and MCB as complementing one another. Some faculty will have appointments in both programs, and it may be possible for PEMM students to do rotations in either MCB or PEMM labs.

**Train:** Michael Cole, Ph.D., associate director of PEMM and a professor of pharmacology-toxicology and of genetics, says the program will “train a new generation of health-care researchers that will be better prepared to do translation research.”

Once PEMM receives final approval from the Dartmouth College Board of Trustees, discoveries made by this “new generation” will be coming soon to a clinic near you.

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