Microbeam Training Course at RARAF
Held May 20-22, 2013

The third RARAF microbeam training course at Columbia University's Nevis Laboratory in Irvington, New York will be held on May 20-22, 2013. The course is designed to provide a "pipeline" of researchers interested in the use and development of microbeam facilities for research in biology, radiation biology, and radiation physics.

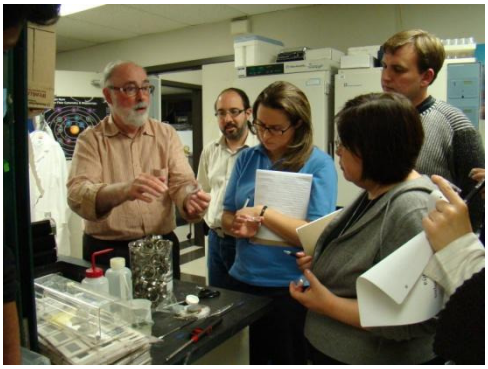
Sponsored by the National Institute of Biomedical Imaging and Bioengineering (NIBIB), the three-day course will be offered for the third time to a limited group of scientists, selected by an open competitive application process. Application to the program is open to graduate students, postdoctoral fellows, and faculty with an interest in the use and development of microbeam facilities. Both foreign nationals and U.S. citizens may apply to the program.

This intense program is taught by leading Columbia University biologists and physicists who are pioneers in the development and use of microbeam technologies.

Applicants are required to submit:

1. A copy of their *curriculum vitae*
2. A statement (one page or less) of how they intend to use the knowledge gained from the course and whether they will need financial support.

Applications should be sent to Course Director Marcelo Vazquez, MD, Ph.D. by **5 p.m. EST Friday, January 12, 2013.**



Microbeam Training Course Agenda

Day 1: Lectures

a. *Introduction to microbeams*: These presentations are designed to give biologists an understanding of microbeam physics and physicists an understanding of biology requirements and applications.

1. *Why microbeams*?
2. *Physics of microbeams: from accelerator to targeting.*
3. *Biology of microbeams: specimens, endpoints and motivations.*

b. *Tour of RARAF microbeam facilities*

c. *Designing and building a microbeam*

d. *Designing a microbeam experiment*

e. *Day-to-day issues running a microbeam*

f. *Preparing cells for irradiation*

Day 2: Demonstrations and hands-on experience

a. *Set up the microbeam: scan the beam spot size, focus the beam, locate beam spot*
b. *Imaging procedures*
c. *Irradiation procedures*
d. *Irradiate cells: operate microbeam for different irradiation protocols*
e. *On-line/off-line analyses*

Day 3: Demonstrations and hands-on experience (Cont.), discussions and final lectures

a. *Data gathering, processing and analysis*
b. *Microbeam facility development*
c. *User facility interphase*
d. *User community development*

ɪr questions or more information please check our website
(http://www.raraf.org/microbeamtrainingMain.html)
or contact

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