MICROFLUIDICS IN BIOMEDICAL SCIENCES TRAINING PROGRAM
UNIVERSITY OF MICHIGAN

The University of Michigan
Microfluidics in Biomedical Sciences Training Program
2200 Bonisteel Blvd., 1125 Gerstacker Bldg.
Ann Arbor, MI 48109

Shuichi Takayama, Director
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MEMO TO: MBSTP Faculty and Graduate Student Directors

FROM: Shuichi Takayama, Program Director

DATE: May 26, 2015

RE: **CALL FOR APPLICATIONS, Due June 19, 2015**

1) Student support: The Microfluidics in Biomedical Sciences Training Program (MBSTP) is pleased to request applications for new students for the 2015-2016 academic year. Students accepted to the program receive tuition and stipend support for one year with possibility for renewal in a second year. Support for this term begins September 1, 2015. Please consider nominating students from your group, and encourage other students and faculty in your department who are not yet members of MBSTP to apply as well. Students may apply directly to the Program and do not need to go through their home department.

2) Eligible students. We support graduate students who are interested in developing, studying, or applying microfluidic technologies in biomedical sciences, broadly defined. Students may be enrolled in the College of Literature, Science, and the Arts (LSA), the College of Engineering, or the Medical School. Departments involved include Chemistry, Physics, and Molecular, Cellular and Developmental Biology (MCDB); Biomedical Engineering, Chemical Engineering, Mechanical Engineering, Electrical Engineering and Computer Science, and Macromolecular Science and Engineering; Biological Chemistry, Cell Development, Neural Biology, Cellular and Molecular Biology, Human Genetics, Immunology, Microbiology and Immunology, Neurosciences, Pathology, Pharmacology, and Physiology. Students who are interested, but are not enrolled in one of these departments, may also apply and be admitted to the program at this time. If a student applicant plans to perform his or her thesis work in the lab of a faculty member who is not currently part of the Program, the Program Committee will consider the training environment of that faculty member's group as part of the student's application. *Students must be either a U.S. Citizen or have Permanent Residency in the United States.*

3) Application process: Please send applications *directly* to Pat Metzler (metzlerp@umich.edu) no later than 5 pm June 19, 2015. APPLICATIONS DO NOT NEED TO GO THROUGH THE HOME DEPARTMENT. Application instructions are provided at the end of this memo. Other details can be found at http://umich.edu/~ufluids/. We are making changes to the program so there will be some changes from web description.

The MBSTP Executive Committee will meet in late June to evaluate the applications and to select next academic school year's class. Priority in selection will be given to students entering their second year of graduate school, although students at all levels will be considered. In selecting students, the Executive Committee attempts to maintain a balanced representation of the various disciplines, schools, and departments.

3) About the Program. Student admitted to the MBSTP will participate in several training activities designed to broaden their experience and training. Activities include: monthly journal club, seminar series, annual symposium, an Interdisciplinary Research Requirement or Industry Internship, and Workshop on Microfabricating Microfluidic Devices for those who are new to microfabrication. Students will also take the program's core course, ChE 696 Microfluidic Science and Engineering, one Graduate Level Biology or Biomedical Science course, and the medical school course in Research Responsibility and Ethics (PIBS 501/503). Several elective courses are also encouraged. List of eligible courses are available upon request. The interdisciplinary requirement can take a variety of forms. Examples include an engineering student working with a biomedical laboratory, a physiology student collaborating with a microfluidics technology lab, or the student may choose an industrial internship. The experience must be approved by the MBSTP executive committee and is expected to provide at least 6 weeks of time outside the home laboratory. Specific plans for an **interdisciplinary experience or industry internship need to be in place before 2nd year of funding**. Students in the Program must have at least one MBSTP faculty member other than their thesis advisor on their dissertation committees. Where feasible, a collaborator or co-mentor from another department should also be on the dissertation committee. This person will help guide the interdisciplinary requirement.

More details about the activities, as well as faculty requirements, can be found at http://umich.edu/~ufluids/training_program.html.

4) Questions? For questions about the program, please write Prof. Takayama at takayama@umich.edu

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Application Instructions

To apply to the program, students should send the information below to Pat Metzler by 5pm June 19, 2015. Applications may be sent electronically (preferred) or by campus mail at:

Pat Metzler
Biomedical Engineering Department
2200 Bonisteel, 1125 Gerstacker Bldg.
Ann Arbor, MI 48109
734/763-7540
Email: metzlerp@umich.edu

Application Materials:

- Cover sheet (next page)
- A letter from the student describing their interest in the program. The letter may include any activities sponsored by MBSTP that they have participated in already. The letter should also describe their research plans and accomplishments with an emphasis on how it integrates microfluidics and biomedical sciences. The student should also present a plan for **an interdisciplinary research experience or industry internship** to be chosen depending on the students career aspirations. Two page limit.
- A copy of the student's original application package to Rackham Graduate School including transcripts, GRE scores, and list of courses taken.
- Student's Current Rackham Transcript
- Student's Curriculum Vitae (C.V.)
- A letter of support from the student's thesis adviser. This letter, which should not be sent separately, should describe the student's strengths, potential for independent research, and interest in the program. The adviser should also state that they agree to participate in the program requirements (e.g. attend seminars, and allowing/helping arrange for **student interdisciplinary research experiences or industry internships** (http://umich.edu/~ufluids/training_program.html). The letter should also indicate support available to the student for their work (advisors will be asked to support ~$7500/year from a discretionary account to supplement student's stipend.).

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MBSTP Application Coversheet

Student Name: _____

Student Department: _____

Student Advisor: _____

[ ] Cover letter describing interest in the program and research accomplishments. Two page limit.

[ ] Original application package to Rackham Graduate School including transcripts, GRE scores, and list of courses taken.

[ ] Current Rackham Transcript

[ ] Curriculum Vitae (C.V.)

[ ] A letter of support from the student's thesis adviser or another faculty member.

[ ] Check here if supporting letter is arriving under separate cover. It is the responsibility of the student to ensure that the letter arrives by the posted deadline.

[ ] Please answer the following questions:

1. Have you been supported by another training grant while at UM? If so, please name.

2. Have you received other fellowships? If so, please indicate.

3. What year are you in your Graduate Program? When do you expect to become a PhD Candidate?