

To: Trainers participating in the *Plant Biotechnology for Health and Sustainability* Predoctoral Training Grant

From: Rob Last, Program Director

Date: April 27, 2015

Subject: Call for Trainee Applications

On behalf of the Steering Committee, I ask that you encourage qualified students to apply to participate in the training program 'Plant Biotechnology for Health and Sustainability', which is entering its second year of funding on 1 July, 2015. Some key points are covered below, and more details are at <http://plantmetabolism.natsci.msu.edu/>.

***Eligibility:***

First-year PhD students who recently completed their second semester of study at MSU and are doing fundamental research in a trainer's lab are eligible to apply. Note that you are listed as a trainer if you are a faculty member who received this message. Highly qualified US citizens and permanent residents will be considered for a small number of predoctoral (year 2-3) fellowships starting in Fall Semester 2015. The fellowships will cover stipend, tuition and health insurance for up to four semesters and two summers. Fellowship awardees must conduct fundamental research on plants or relevant microorganism that is aligned with NIH research priorities (the message from the program officer is 'no bioenergy research if you wish to continue being funded').

PhD students can participate in the training program even if they do not receive an NIH trainee fellowship. These participants include non- US citizens, or permanent resident and citizen applicants who were not awarded fellowships. ***All interested students must submit a completed application by June 1, 2015.*** Accepted students are required to participate in activities associated with the program, as described below.

***Obligations of trainees:***

**Non-fellowship funded trainees:**

1. All trainees of the program will complete BMB961 'Designing Plant Metabolism for Health and Sustainability' (currently being taught in Spring Semester, the Fall Semester BMB960 level Plant Biotechnology Research Forum on Plants for Health and Sustainability seminar course (to be taught by Corny Barry, Gregg Howe and Rob Last in Fall 2015) and QB826, 'Introduction to Quantitative Biology Techniques' before the start of their fifth semester (end of the second year).
2. Trainees will attend twice-yearly meetings with Executive Committee (EC) members to discuss their research and training progress and how the program participants can strengthen the research community at MSU.
3. All program trainees are expected to attend and participate actively in the annual symposium each year. The fourth annual symposium is planned for 9-10 October 2015.

**Funded fellows:**

1. Completion of the three prerequisite courses (BMB960, BMB961 and QB826) by the end of their second year of predoctoral studies is a requirement for second year of funding of fellows (during their third year of predoctoral studies). Funded fellows must receive a grade of 3.5 or better in each of these three courses for continued funding.
2. Active participation in each annual symposium, including helping to organize and run the symposia in year 3 and beyond.
3. Each fellow will work with their mentor and the Executive Committee (EC) members to identify and organize an 8-10 week industrial internship to be completed before the end of their 4th year of graduate studies. In addition to being an excellent career development opportunity, this is a requirement of the NIH T32 Biotechnology Training Program. Limited funds are available for fellow travel, and subsistence room and board associated with this internship.
4. In addition to their primary mentor, the fellows will have another trainer or EC member on their advisory committee. They will also meet privately with the EC members once a year to discuss progress in research and professional development.
5. To encourage exposure to a broad range of topics, fellows will be expected to attend at least 20 seminars annually, including a mix of talks outside of their field of interest as well as those closer to their discipline and research interests. Five short written analyses of talks attended in different seminar series (for example, BMB, CEM, CHEMS, HRT, PLB, Science at the Edge) in both years 2 and 3 will form part of an Individual Development Plan (IDP) and discussion of the seminars will be part of the private annual meeting with the Training Program EC.
6. Fellows are expected to develop competency in statistical/quantitative analysis and computational biology approaches. Completion of at least one course in this general area will satisfy the requirement for quantitative competency.
7. Fellows will participate in mentoring training activities associated with the program and mentor one or more undergraduate students for a minimum of 10 weeks.

**Faculty responsibilities:**

1. It is expected that Faculty trainers will actively participate in multiple aspects of the program, including retreats, symposia and seminar classes.
2. Faculty trainers of funded fellows are required to participate fully in the program events listed in 'obligations of trainees, funded fellows' above. Failure to participate will lead to withdrawal of the subsequent year of funding support for the student and limit consideration of future funding opportunities for students in the trainer's laboratory.
3. Current members of the Executive Committee will rotate out of their positions following a period of service and Faculty trainers whose students have participated should plan to serve on the Executive Committee if invited.