Interdisciplinary Pilot Award Program

To increase awareness of the University of Rochester’s IIMP program, and to promote new collaborations between basic science research laboratories and population science investigators, we are offering a pilot award funding opportunity. PhD trainees in current pre-doctoral training programs at the URMC may apply. Three pilot awards of $7,500 each, for a one-year period, will be made available on a competitive basis.

These pilots are intended to “transform” research approaches in all URMC PhD programs by having current pre-doctoral students incorporate both laboratory and population training in their dissertation research.

The following criteria will be included in our review:

1) Research projects must include named co-mentors, one each from a research laboratory and population sciences

2) at least one of these co-mentors will be new to the IIMP PhD program mentoring faculty roster

3) the research project should be student-driven to further refine research projects at the interface of infection, inflammation and immunity and population science research

4) the awardee must present their work to our combined TBS and TBS-IIMP student seminar series in 2016-2017.

About the IIMP Program

Emerging infections, and the novel immunotherapeutics to address them, require a scientific workforce with expertise in subcellular (molecules) to community (populations) processes. The University of Rochester changed global health by developing vaccines to prevent childhood meningitis, pneumonia, and human papillomavirus infection. Building on this legacy, utilizing ongoing CDC-funded public health infectious disease surveillance and intervention effectiveness studies, that co-exist with innovative basic scientific programs in immunity and infection (NIH-funded Centers for: AIDS Research, Biodefense Immune Modeling, Influenza Research and Surveillance, Respiratory Pathogens Research and Environmental Health Sciences), we developed a funded training program called Infection and Immunity: From Molecules to Populations (IIMP). The goal of IIMP is to prepare the next generation of researchers who can lead interdisciplinary research combining population approaches with insights generated at the cellular and molecular level.

From the perspective of population scientists, basic science is playing a bigger role in understanding the patterns and causality of disease and health. For example, infectious disease surveillance will soon be based on whole genome sequencing and other advanced molecular detection techniques. Understanding of these methods and interpretation of the data they produce will be critical to understanding the patterns and transmission of disease. Human and microbial genomics will play a critical role in understanding patterns of susceptibility, particularly for infectious diseases and diseases involving the immune system. Crude categories of patients and their “risk factors” will seem antiquated when scientists can decipher genomic patterns that define
susceptibility to disease. Population scientists of the future will study the dynamic relationship between the genetic, behavioral, and environmental determinants of disease.

Increasingly basic scientists will be asked to demonstrate the impact of their work on the health of the population. To do so, it will be essential that they understand the language and concepts of population health. Basic epidemiology, biostatistics, and health policy development will be required to explain the relationship between laboratory work and its translation to clinical and community strategies to improve health. Furthermore, both basic and population scientists will be required to understand bioinformatics and the interactions of population information and genetic and phenotypic characteristics. Future leaders, who will define health policy, will need to understand both population and basic science perspectives to make decisions regarding resource allocation and disease prevention.

Training such scientists and leaders at the interface of population and laboratory sciences is challenging in the current environment of most medical schools with deep divisions between basic science and clinical departments. Often population sciences are taught in schools of public health by faculty who have little background in basic sciences. As a result, students have few opportunities to interact, much less work together to solve real health challenges. The Infection and Immunity: From Molecules to Populations (IIMP) pilot grant program will provide graduate students and mentors the opportunities for innovative science that bridges the gap between laboratory science and population science.

Please click on link to our website for more information about the IIMP program.

Important Dates

Release Date: January 11, 2016

Deadlines:

- February 29, 2016 at 5:00 PM – Full proposals will be due.
- March 18, 2015 – Notification of award will be made.
- April 1, 2016 – Anticipated start date. Note: All animal and human subject protocols must be approved prior to the start date. No funds for research project costs may be released until all required human subjects and animal welfare approvals have been received.

Submitting a Proposal

Online submission: Proposals must be submitted electronically as a single pdf file via email to Daisy Bird Geer (daisy_bird@urmc.rochester.edu)

Application Requirements:

1. PHS 398 face page
2. Abstract (limited to one page, Arial font size no smaller than 11 point), which includes the following
   a. Project title and PhD student’s name and degree-granting department
   b. Name, title and department of co-mentors
   c. A description of how the proposal is responsive to the Pilot Program RFA
   d. Overall goals of the project
3. New NIH-format biosketches for PhD student and both co-mentors (Contributions to Science section)
(4) Research Plan (limited to 3 pages, Arial font size no smaller than 11 point with the exception that fonts of no smaller than 8 point can be used for tables and figure legends) to include:
   a. Specific Aims
   b. Research Strategy (Significance, Innovation and Approach; preliminary data allowed but not required)
   c. Timeline (remember to plan for one year of research)

(5) A signed statement (1 page) on letterhead indicating that both the lab science and population science mentors are supportive of the application.

(6) Human Subjects and Animals: Protection of Human Subjects or Vertebrate Animals approvals as appropriate

(7) Data Analysis Plan (1/2 page limit): Provide a brief data analysis plan and identify if bioinformatics support is needed for data collection and management.

(8) Budget (limited to 1 page using PHS 398 Form Page 4, providing a detailed description of supplies and other expenses.) Funds may not be used to support faculty or student salaries or purchase equipment. Funds may be used for the student to travel to present results at a national conference. Funds may be used to purchase software for data analyses. Funds must be used in 1 year; however, carryover of $1500 to second year to pay for student travel to a national conference will be allowed. If carryover funds not used for student travel, they will be forfeited.

(9) Bibliography (two pages allowed for references cited in the application). Please include all authors’ names in each citation and PMCID numbers where applicable.

Include page number and name of the PhD student in the footer of the application.

Selection Process
This is an internal competition for Burroughs Wellcome funds already awarded. ORPA review and sign off is not required.

Proposals will be reviewed by a faculty committee and will be assigned a priority score in accordance with the criteria listed above. A summary of reviewers’ comments will be provided once the review process is complete.

Contacts
If you have questions regarding this RFA, please contact one of the following.

General and logistical inquiries:
Daisy Bird Geer
Daisy_Bird@urmc.rochester.edu
(585) 275-3603

Scientific and peer review inquiries:
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