

APPROPRIATIONS REQUEST FORM OREGON HOUSE DELEGATION FISCAL YEAR 2010

DEADLINE FOR SUBMISSION: FEBRUARY 20, 2009

PLEASE NOTE: As required by the House Appropriations Committee, all requests will be made public on the requesting Member's website.

1. Project Title: Mycobacterial Disease Project

2. Organization Name and address:

Oregon State University
Corvallis, Oregon 97331-4501

3. Primary Contact name, phone number, mobile phone number, fax number and email:

4. Project Location Address (if different from Organization): Corvallis, Oregon

5. Please describe the requesting organization's main activities, and whether it is a public, private non-profit, or private for-profit entity:

Public University. Oregon State University is one of only two U.S. universities designated a land grant, sea grant, space grant and sun grant institution. Its more than 20,300 students come from all 50 states and more than 80 countries. OSU programs touch every county within Oregon, and its faculty teach and conduct research on issues of national and global significance.

6. Briefly describe the activity or project for which funding is requested (please keep to 500 words or less.)

Mycobacterial diseases, such as tuberculosis (*Mycobacterium tuberculosis*), Buruli ulcer (*Mycobacterium ulcerans*), *Mycobacterium avium* complex infections, and those caused by other environmental mycobacteria, constitute a significant global public health concern, especially in developing countries. The dimensions of the problem are enormous: One-third of the world's population is infected with *Mycobacterium tuberculosis* and approximately 87 percent are infected with non-tuberculosis mycobacteria. Each year, between two and three million people die from tuberculosis – a person dies every 20 seconds – or become handicapped and experience diminished quality of life when infected with environmental mycobacteria, such as *M. avium*. In addition to impacting public health, the economic effects of these diseases are devastating.

Due to the complex interaction of infectious, environmental and socioeconomic factors involved in mycobacterial diseases, effectively addressing this public health concern will require a multi-disciplinary strategy implemented on a global scale. New environmental conditions caused by climate change may affect both the human host as well as the bacterium, with the potential of creating different disease dynamics. Individual researchers at OSU already have earned international reputations for their expertise in mycobacterial diseases and they compete successfully for extramural research grants that fund investigations of narrowly-focused topics.

This request seeks targeted federal funding in support of initiating a multidisciplinary and international research infrastructure that will capitalize on existing strengths and promote development of a comprehensive research program. Initial development of this program will involve:

- Curriculum development to establish an interdisciplinary graduate education program on mycobacterial disease management
- Infrastructure improvements including renovation of currently existing laboratory space to meet biosafety level-3 standards for research and mycobacterial diseases
- Equipment purchases for laboratory space including; biosafety level-2 hoods, freezers, PCR thermocyclers, and microscopes with digital image capture

Building the proper infrastructure is crucial to the program's success and cannot be achieved through the competitive grants.

The program will be organized into three interdisciplinary project areas; tuberculosis (pathogenesis, public health, host response, therapy and animal models), diseases caused by environmental mycobacteria (pathogenesis, public health, host response, therapy, animal models), and conditions secondary to *Mycobacterium avium* subsp. paratuberculosis (chronic inflammatory disease). The ultimate goal is to create a well integrated program that collaborates with institutions in developing countries to address disease prevention and treatment strategies. The program will expand research opportunities, both through federal agencies (NIH, CDC, USAID) and through private foundations, for faculty and students while serving a national and international need.

This initiative will involve the collaborative efforts of scientists from several different OSU colleges (including the Colleges of Veterinary Medicine, Pharmacy, Health and Human Sciences, Sciences and Agricultural Sciences), OHSU, and the countries of Georgia, China, Brazil, Ukraine, India, Ghana and Colombia. It is expected that the research promoted by the program will lead to the development of novel therapies and, therefore, will integrate well with Oregon Translational Research And Drug Development Institute (OTRADI), a high throughput program for drug testing.

7. Has this project received federal appropriations funding in past fiscal years?

No, this is a new project.

7a. If yes, please provide fiscal year, Department, Account, and funding amount of any previous funding.

N/A

8. Federal agency and account from which funds are requested (Please be specific –e.g. Department of Housing and Urban Development, Economic Development Initiatives account):

The Fund for the Improvement of Post Secondary Education (FIPSE) account- within the LHHS bill

9. What is the purpose of the project? Why is it a valuable use of taxpayer funds? How will the project support efforts to improve the economy and create jobs in Oregon?

Mycobacterial diseases are serious threats to public health. Improving diagnosis ability, vaccines and therapy will impact the economy by reducing health threats and symptoms that result in lost work and mortality and health care costs associated with the disease.

This project has the capacity to create from 100 to a couple thousand jobs, depending on the level of success achieved in developing diagnosis, new therapies and vaccine for mycobacterial diseases. In addition, new approaches to deal with the conditions, will decrease the time lost in productivity and in the case of the dairy industry, the lost in revenue.

10. Have you requested funding for this project from other Members of Congress?

If so, who? Support is being sought from the entire Oregon Congressional Delegation

11. Funding Details:

a. Total project cost (all funding sources and all years):

\$2.529M

b. Amount being requested for this project in Fiscal Year 2010:

\$1.3M

c. What other funding sources (local, regional, state) are contributing to this project or activity? (Please provide specific dollar amount or percentage.)

- Individual competitive grants in the area of mycobacterial research have annual budgets in excess of \$700,000 (National Institute of Health, USDA, Bill and Melinda Gates Foundation, Experimental Station)
- The research assignments of faculty salaries funded by OSU approximate \$400,000
- Expenses associated with space use, utilities, and administrative support approximate \$129,000

d. Do you expect to request federal funding in future years for this project?

No

e. Breakdown/budget of the amount you are requesting for this project in FY 2010. (e.g. salary \$40,000; computer \$3,000):

Research Equipment

· PCR thermocyclers, including real-time:	\$42,000
· Refrigerated centrifuges:	\$14,000
· Biosafety level-2 hoods:	\$54,000
· Electrophoresis apparatus:	\$10,000
· Incubators standard, shaker, and CO2):	\$45,000
· Freezers (-80C and -20C):	\$34,000
· Gel documentation system:	\$20,000
· Microscopes with digital image capture	\$86,000

Laboratory space remodel	\$695,000
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(Upgrade of existing space in Dryden Hall to meet biosafety level-3 standards for research on mycobacterial diseases (2,300 GSF at \$522/GSF))

Research curriculum development	\$300,000
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TOTAL	\$1.3 million
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f. Please list public or private organizations that have supported/endorsed this project:

Oregon Department of Agriculture, Oregon Dairy Cow Association, USDA, Oregon Public Health Department

g. Is this project scalable? (i.e. if partial funding is awarded, will the organization be able to use the funds in FY 2010?): Yes