July 7, 2013

Research Equipment Reserve Fund (RERF) Award Final Report

Diggs, Helen (Laboratory Animal Resources Center): “Caliper Life Science, In Vivo Imaging System (IVIS), Optical Imaging System”
Spring 2012 Award for $86,854

Final Budget Statement
The $76,620.00 RERF funds were used to pay for the Caliper IVIS Lumina II Imaging System and $10,349.78 was used to pay for the supporting inhalant anesthesia system. The remainder of the balance, $52,500, came from matching funds from eight other departments throughout Oregon State University campus. These Departments were: Environmental Health Sciences Center ($10), College of Public Health and Human Sciences ($5K), College of Pharmacy ($3K), Center for Genome Research and Biocomputing ($5K), Linus Pauling Institute ($10K), College of Veterinary Medicine ($10), College of Agriculture ($7.5K) and the Department of Biochemistry and Biophysics ($2). The Index number that was setup by the Research Office for use was RDR259 with activity code of R842.

The IVIS Lumina II Imaging System’s serial number is: IS1223N5962. The associated Inhalant Anesthesia System’s serial number is 50127, SAS 2807, M888730-1200048, 4/10/2010, K11001, HP6052.

Summary of the scholarly work/activities made possible as a result of the RERF funding
The IVIS Lumina Optical Imager is housed in the Imaging Suite in the Laboratory Animal Resources Center (LARC)-managed animal vivarium in the Linus Pauling Science Center (LPSC). The LPSC vivarium is the largest and most used animal facility on campus. Although the Imaging Suite is access-controlled it is a common-resource area available upon request and after successful completion of training to all campus investigators. There have been two vendor sponsored didactic and hands-on training sessions for the unit. About 25 people attended each session including campus investigators, veterinarians, graduate students and research staff who perform in vivo and in vitro rodent, small vertebrate (fish) and cellular work. Caliper’s Advanced Imaging Training Specialists work directly with interested researchers to assist them with their imaging programs. While the imager has been used for practice studies and training, Dr. Siva Kolluri’s IACUC approved ACUP #4452, "Bcl-2 Functional Converters as Breast Cancer Therapeutics" is the first project to make full research use of the imager. Dr. Kolluri will track the development, growth and metastasis of human breast cancer cells in the SCID mouse model. The IVIS imager was included in the NSF CC-NIE Networking Infrastructure Proposal, submitted by Dr. Brett Tyler April 2, 2013. Also in the spring of 2013 Drs. Jeff Greenwood and Christiane V. Löhr submitted an NIH S10 proposal for a in vivo Micro-diagnostic CT Scanner (SkyScan 1176). The Micro-CT will also be used for rodents, small fish and cellular work. If funded, the micro-CT will be co-housed in the LPSC vivarium Imaging Suite with the IVIS imager as a second and complementary common-resource imaging system for campus investigators.
Imaging Suite, room 068, Linus Pauling Science Center