

INBRe-Communication

In Vivo Imaging System on U of I Campus

The Idaho INBRE program, with assistance from the University of Idaho COBRE program, recently installed a new imaging system on the U of I campus. The Xenogen IVIS 200 imaging system is designed to view a bioluminescent or fluorescent marker inside small, live animals. The ability to repeatedly view these animals greatly enhances an understanding of disease progression, tumor growth and developmental studies. In addition, this new imaging opportunity reduces the number of animals used in a research program and allows researchers to choose more time frames to watch the subtle changes that occur in a live animal model.

Specifically, the Xenogen system uses a cooled high-sensitivity charge coupled device (CCD) camera to quantitatively measure light. The system is designed to detect the expression of the luciferase (Luc) gene, a reporter gene in mice commonly used in disease and cancer studies, as well as fluorescent probes such as green fluorescent protein (GFP) or red fluorescent protein (RFP).

Previous studies that have utilized this type of imaging range from in vitro cancer cells with a luciferase label or fluorescent bacteria in a growing biofilm to high-throughput screen of nucleocytoplasmic trafficking of proteins in response to extracellular signals and drug discovery studies in cancer research.

To learn more about this new imaging device, we encourage you to attend a presentation by representatives from the Caliper Life Sciences Corporation (formerly Xenogen Corporation) on Friday, March 23 on the U of I campus. The presentation will cover an overview of research examples in drug discovery in oncology, infectious disease, inflammation and toxicology, as well as an explanation of how this specialized imaging equipment and associated software work. The presentation is scheduled to begin at 10 am and end at 12:15 pm. In the afternoon, there will be a small session for investigators to get hands-on training,

For more technical information about this research tool you may want to visit the Xenogen website at www.xenogen.com. For details about the upcoming presentation and training, please contact Ann Norton, Research Associate in MMBB at the U of I at (208) 885-5191, or e-mail asnorton@uidaho.edu

If you have a topic or idea for a future INBRe-Communication, please contact Kjelda Berg by calling 208-885-5373, or e-mail kjeldab@uidaho.edu



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