



Disease Prevention

NIH funding exceeds \$50 million to scientists, students Idaho-wide

More than \$50 million in National Institutes of Health (NIH) funding flowed through the University of Idaho, Idaho State University, and Boise State University to their scientists and students since 2000.

Summer 2004 saw the largest award for scientific collaboration among Idaho's three public universities. Their joint efforts landed a \$16.1 million grant to establish the IDeA Network for Biomedical Research Excellence.

The most recent funding will establish partnerships between the public universities and seven other higher education institutions and research centers. Within the UI College of Agricultural and Life Sciences, NIH-supported research explores diverse topics including staph infections, birth defects, and the search for powerful new antibiotics.

This research support for scientists enhances their competitiveness for additional research funding. The program offers some 50 undergraduate students from throughout Idaho paid laboratory experiences ranging from two to 10 weeks during summer 2005.

Idaho's success with NIH Institutional Development Award (IDeA) program funding relied on many dedicated faculty members and leadership of the statewide Experimental Program to Stimulate Competitive Research (EPSCoR) Committee composed of business, government, and university representatives.

EPSCoR/IDeA programs assist states in becoming more competitive for research on a national level. Since Idaho's first National Science Foundation EPSCoR award in 1989, EPSCoR/IDeA programs have brought more than \$103 million to the state. To attract this federal funding, the Idaho Higher Education Research Council invested \$9.3 million in matching funds, generating a direct return of \$11 for every dollar invested.

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UI targets profit-sapping cattle disease

Johne's is a sneaky intestinal disease of cattle that can rob producers of up to \$200 per milk cow or \$50 per beef cow. Calves get the lifelong infection from contaminated manure or colostrum, but the real losses—less milk or lighter weaned calves—start in adulthood even before the cow shows signs of diarrhea.

In an intensive effort, the UI Caine Veterinary Teaching Center is educating producers, testing cattle, improving diagnostic tools, and certifying veterinarians to

perform Johne's risk assessments and develop herd-health management plans.

UI veterinary specialist Jim England estimates that Johne's prevalence in Idaho mirrors that of the nation: about 10 percent on dairies and less than 2 percent on beef ranches. "We need to raise awareness because there are very good management tools," he says.

Contact England at jengland@uidaho.edu.

DID YOU KNOW?

1.2

PHYSICIANS per 1,000 population is Idaho ratio, compared to 2.2 per 1000 in the U.S.

*Source: 2001 figure, Northwest Area Foundation Indicator Website

UI scientist studies virus that causes birth defects. Vaccine may follow

Perhaps one in 50 newborns in the United States each year have been exposed to HCMV, Human Cytomegalovirus, and as many as 20 percent of them will sustain damage to their hearing, sight, or mental capacity as a result.

UI molecular biologist Lee Fortunato tracks how the virus, a herpes relative, hijacks the cellular machinery of developing brain cells, using them to reproduce. She focuses on a switch-like protein that determines whether a cell will repair itself or die.

Her work, which received a \$1.3 million grant from the National Institutes of Health, shows that the virus struggles in cells without the protein. That finding could reveal more clearly how the HCMV takes control and help efforts to develop a vaccine.

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