Ohio Academic Resources Network (OARnet) part of $141.3 million in broadband stimulus grants

The Ohio Academic Resources Network (OARnet), the technology operations arm of the University System of Ohio based at Ohio State, is a partner in three new federal stimulus grants totaling $141.3 million. Horizon Telecom, OneCommunity, Com Net Inc., and OARnet formed the Ohio Middle Mile Consortium (OMMC), a public-private partnership, to create a comprehensive statewide plan to expand broadband infrastructure to underserved areas of the state. Horizon Telecom was awarded $66.5 million to fund an extensive broadband network in 34 counties in the southern and eastern part of the state. OneCommunity will receive $44.8 million to extend its fiber optic network in northeast Ohio. Com Net Inc. will add almost 700 new miles of broadband fiber to rural and underserved communities throughout western Ohio with a $30 million award. The collective grants, of which OARnet is expected to receive more than $7.3 million as a sub-recipient, will expand OARnet’s current infrastructure and link together regional and local networks statewide. It is estimated that these three projects will create 535 direct jobs and save more than 800 jobs.

Second Ohio State cancer drug begins clinical trials testing

For the second time within a year, an experimental drug developed by cancer researchers at the OSU Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard Solove Research Institute is being tested on patients in a clinical trial. The drug, licensed to Arno Therapeutics Inc., is designed to treat relapsed or treatment-resistant multiple myeloma, chronic lymphocytic leukemia, or lymphoma. Ohio State is the only site worldwide accepting patients to the clinical trial. Dr. John Byrd, professor of internal medicine and associate director of clinical translational research at the OSUCCC-James is working with the developer of the drug, Dr. Ching-Shih Chen, Lucius A. Wing Chair of Cancer Research and Therapy and professor in medicinal chemistry and pharmacognosy, internal medicine, and urology in the College of Pharmacy.

Research teams awarded Multidisciplinary University Research Initiative (MURI) projects

Two Ohio State research projects are receiving funds through the Department of Defense’s highly competitive Multidisciplinary University Research Initiative (MURI) program. The MURI program, administered through the Army Research Office, the Office of Naval Research, and the Air Force Office of Scientific Research, supports research teams of investigators that intersect more than one traditional science and engineering discipline in order to accelerate both research progress and transition of research results to application. Joseph Heremans, Ohio Eminent Scholar and professor of mechanical engineering and physics will lead the project Cryogenic Peltier Cooling. Collaborators on this project include Princeton University, Massachusetts Institute of Technology, Michigan State University, Boston College, and the California Institute of Technology, along with several international universities. Steven Ringel, professor and Neal A. Smith Endowed Chair in Electrical Engineering and director of the Institute for Materials Research, is a collaborator on a MURI led by the University of California, Santa Barbara titled Dielectric Enhancements for Innovative Electronics. Additional collaborators include Arizona State University, Harvard University, Massachusetts Institute of Technology, Stanford University, and Yale University.

Bringing diversity to the world of graduate education

The Summer Research Opportunities Program (SROP) at Ohio State is designed to increase minority student access to graduate education. Sponsored by the Committee on Institutional Cooperation (CIC), SROP prepares
students to pursue advanced degrees at one of the 12 CIC member institutions. Each year, Ohio State selects 40-60 students to participate in the program. The SROP provides nine weeks of faculty-mentored summer research experiences and enrichment activities to help prepare students for graduate study. Students present their research findings at an annual SROP research conference. This year’s national SROP conference, “Research is Formalized Curiosity – It is Poking and Prying with Purpose,” was held at Ohio State and brought more than 400 students to campus from colleges and universities across the U.S.

Biodynamics Laboratory researcher shares in $1 million Third Frontier collaboration to commercialize lumbar motion monitor

With funding from Ohio’s Third Frontier Program, Ohio State researcher William Marras, professor of industrial and systems engineering, director of the Biodynamics Laboratory, and executive director of the Institute for Ergonomics, is developing a technology that can lead to more effective treatments for those who suffer from back injuries. Marras’ years of progress on a biodynamic model to predict how best to fix back problems before surgery are nearing reality for industry and medical applications. Dr. Marras will be part of a Columbus-based collaboration with Lanx Inc., one of the fastest growing spinal implant companies in the U.S. Lanx Inc., based in Broomfield, Colorado, has chosen central Ohio as the location to launch its lumbar motion monitor commercialization project because of the region’s growing strength in biomedical commercialization and to be close to the university and the other collaborators on the project – OrthoNeuro, the Cleveland Clinic, and the Ohio Spine Network. The device, which measures the range of lumbar motion in patients with back injuries, will more accurately diagnose the location and extent of the injuries, leading to more effective treatments.

Ohio State hosts first iDream Student Challenge

With a focus on technologies that advance the quality of human life, the iDream Student Challenge, sponsored by Honda, is a scholarship program designed to inspire new thinking to everyday challenges and foster a spirit of innovation among the leaders of tomorrow. The competition included 19 teams of Ohio State science and engineering students whose projects offered creative engineering solutions and innovative technologies in one of three categories: electronics, mobility, and materials. Among the winning projects recognized at the 2010 Honda Initiation Grant Technical Horizon Symposium held in July at the Ohio Union were an alarm system to help save the lives of children accidentally left in vehicles, a solar thermal electric car charging station, and a gait trainer for children with cerebral palsy. Honda selected Ohio State to pilot the iDream program this year. Next year, the iDream Student Challenge will be a national contest.

El-Sherbini receives Fulbright Award

Magda El-Sherbini, associate professor at the Ohio State University Libraries, has been awarded a lecturing/research grant by the Binational Fulbright Commission in Egypt and the J. William Fulbright Foreign Scholarship Board for 2010-2011. The Fulbright Scholar Program is the U.S. government’s leading academic exchange program. El-Sherbini will conduct research at the Bibliotheca Alexandrina where she will study and evaluate the Arabic name authority file union catalog that the library is developing and compare it to the international name authority. The creation of authority files reduces ambiguity in catalog headings and allows for increased precision in content searches. Arabic names pose particular challenges in cataloging, because of the variety of methods traditionally used for creating name authorities. El-Sherbini will also conduct a series of seminars on key topics in librarianship in an effort to share expertise and knowledge of current trends in international librarianship with colleagues in Alexandria.

$8.6 million National Cancer Institute grants funds Ohio State/Indiana University collaboration

The National Cancer Institute (NCI) has awarded Ohio State and Indiana University an $8.6 million five-year grant to continue studying genes and changes in patterns of gene activity in breast, ovarian, and prostate cancers. Timothy Huang, professor of molecular virology, immunology and medical genetics and cancer geneticist at the OSU Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, is the principal investigator of the Center for Cancer Systems Biology, which began in 2004 with an $8 million NCI grant. The Ohio State/Indiana University Center for Cancer Systems Biology is one of 11 centers nationally to be funded this year through NCI’s Integrative Cancer Biology Program, which brings clinical and basic cancer researchers together with researchers from mathematics, physics, information technology, imaging sciences and computer sciences to study major questions in cancer biology. The center also has an education core to train young scientists to conduct cancer systems biology research.