University to lead one of four new Women’s Health Initiative regional centers

Ohio State University has been awarded $7.4 million from the National Heart, Lung, and Blood Institute to administer a new round of studies that extends the Women’s Health Initiative (WHI) for another five years. The initial 40 WHI centers across the U.S., established in 1993, have been grouped into four regional centers to carry out new studies. Ohio State has been selected to lead the Midwest region. Rebecca Jackson, MD, professor of internal medicine and physical medicine and associate dean for clinical research, is the principal investigator of the new award. The WHI 2010-2015 Extension Study will fund continuing research into many chronic diseases of aging in women, including cardiovascular disease, cancer, osteoporosis, and stroke, and will support new studies focusing on predictors of healthy aging. The WHI is one of the most definitive, far-reaching programs of research on women’s health ever undertaken in the U.S., involving more than 161,000 women ages 50-79. With the extension, the WHI will study more than 100,000 participants who are now over 80 years old, particularly underrepresented minorities. The other three WHI regional centers are located at the University of Buffalo (northeast), Stanford University (west), and Wake Forest University (southeast).

Noted Ohio State researcher named to Institute of Medicine

Michael Lairmore, DVM, PhD, professor of veterinary biosciences and associate dean for research and graduate studies in the College of Veterinary Medicine, has been elected to the Institute of Medicine (IOM), the medical arm of the National Academy of Sciences. Lairmore, a noted virologist, cancer researcher, and veterinarian is one of 65 new members elected to the IOM this year. Election to the institute is considered one of the highest honors in the fields of health and medicine, and recognizes individuals for outstanding professional achievement and commitment to service. Lairmore’s research focuses on the biology of human retroviruses, including how certain viruses induce cancer. He developed one of the first animal models for AIDS-associated pediatric pneumonia, facilitating studies to treat this serious ailment. He has received continuous support from the National Institutes of Health, totaling nearly $30 million during his career. In addition, Lairmore, the first person in his family to attend college, has served as advisor and mentor to more than 25 doctoral and postdoctoral researchers. Along with Lairmore, five other faculty members at Ohio State are members of the Institute of Medicine.

Ohio State, Colorado State University to share energy and environment leadership position

To capitalize on significant opportunities in energy and the environment, Ohio State University and Colorado State University will share a key leadership position to explore research and economic development in these areas. Ronald Sega, PhD, former astronaut and Under Secretary of the U.S. Air Force, currently serves as Colorado State’s Vice President for Energy and Environment and Woodward Professor of Systems Engineering. He has been named Vice President and Enterprise Executive for Energy and Environment at Ohio State. Sega, who obtained his master’s degree in physics from Ohio State, will serve as a faculty member in Ohio State’s College of Engineering. Between the two land-grant universities, more than 500 faculty members are researching energy and the environment. Sega will facilitate collaboration between the universities and identify and lead potential national initiatives and economic development opportunities. Sega will lead Ohio State’s Institute for Energy and the Environment (IEE), which was founded in 2007 to find environmentally-sustainable solutions to today’s global energy problems. He will also chair the President and Provost’s Council on Sustainability.

Center for Automotive Research part of unprecedented public-private partnership across international boundaries

Ohio State’s Center for Automotive Research (CAR) is part of a consortium, led by the University of Michigan, which will receive $12.5 million over five years under the Department of Energy’s U.S.-China Clean Energy Research Center (CERC) program. The CERC was established to facilitate joint research and development on clean energy by teams of scientists and engineers from the U.S. and China. Collaboration between the U.S. and China – the world’s top energy consumers,
energy producers, and greenhouse gas emitters – is essential to develop the most effective clean vehicle technologies, regional fueling stations, and effective policies. This consortium will focus on advancing technologies for clean energy vehicles, create new export opportunities for American companies, and help to reduce global carbon pollution. Ohio State is lending its expertise to this partnership in the areas of energy storage systems, lightweight vehicle structures, thermoelectrics, electric drive and power electronic systems, and alternative fuels and advanced engines. The Massachusetts Institute of Technology, Sandia National Laboratories, Joint BioEnergy Institute, Oak Ridge National Laboratories, General Motors, Ford, Toyota, Chrysler, Cummins, Fraunhofer, MAGNET, A123, American Electric Power, First Energy, and the Transportation Research Center are also part of this consortium. Giorgio Rizzoni, PhD, professor of mechanical engineering and the director of CAR, will serve as the Ohio State site director and will coordinate interactions among Ohio State researchers, other partners in the U.S. consortium, and the China consortium. West Virginia University will lead a second consortium funded under the CERC program to develop and test new technologies for studying carbon capture and sequestration.

Ohio State’s MBI wins $16.2 million grant in national competition

Ohio State’s Mathematical Biosciences Institute (MBI) will receive a total of $16.2 million of continued support over five years from the National Science Foundation. The MBI has been in operation since 2002, but it must regularly compete against other NSF-funded Mathematical Sciences Institutes for continued funding. At Ohio State, the MBI has actively promoted interdisciplinary research among the mathematical, biological, and biomedical sciences. While the link between biology and mathematics may not seem obvious at first, researchers have shown that the two are closely connected. For example, MBI researchers have discovered new methods for helping wounds heal using calculus; tracked the worldwide spread of viruses, including H1N1, using statistics; and have gained a new understanding of the body’s immune response using computer models. MBI funding supports the work of at least 12 postdoctoral fellows annually, along with a number of long-term visiting scholars. Additionally, the MBI offers special yearly workshops on topics that reflect major world issues, such as public health and climate change. The MBI has benefitted from the university’s internal investment in the Targeted Investments in Excellence (TIE) program which supported areas of research and scholarship where Ohio State could be preeminent in the nation and world. TIE funds were used to attract new faculty members and visiting scholars to Ohio State. Marty Golubitsky, PhD, Distinguished Professor of Mathematics and Physical Sciences, is director of the MBI.

Ohio State researcher receives National Cancer Institute’s prestigious MERIT award

Michael Caligiuri, MD, professor of internal medicine and director of the OSU Comprehensive Cancer Center and CEO of the James Cancer Hospital and Solove Research Institute, is one of four scientists nationwide this year to receive a prestigious MERIT (Method to Extend Research in Time) Award from the National Cancer Institute. The National Institutes of Health (NIH) MERIT award recognizes researchers with impressive records of scientific achievement in research areas of special importance or promise. Less than 5% of NIH-funded investigators are selected to receive MERIT awards. MERIT award winners can gain up to 10 years of stable grant support, thereby reducing some of the administrative burden associated with frequent preparation and submission of grant proposals. The MERIT award recognizes Caligiuri’s extensive work on natural killer cells, a component of the immune system that attacks cancer cells.

Formal education key to stopping spread of HIV in Africa

A new study by Ellen Peters, PhD, associate professor of psychology, finds that simply teaching people the facts about how to protect themselves from HIV may not be enough to prevent the spread of AIDS in Africa. Peters led a team of researchers to Ghana to see whether more formal education leads to better health decisions. Rural Ghana was chosen to study the effect of education on health behaviors because the population in Ghana has nearly equal access to health care and nearly equal levels of wealth, although there are wide differences in educational levels. Researchers found that villagers in Ghana who had higher levels of cognitive and decision-making abilities – not just the most knowledge, were most likely to take steps to protect themselves from HIV infection. More formal education provided people with not only knowledge, but the ability to think about actions, reason statistically in everyday life, and ultimately lead healthier lives. This is one of the first studies performed that shows the importance of formal education in helping to prevent the spread of HIV and the results have important implications for fighting AIDS worldwide. Peters’ research was supported by a grant from the National Science Foundation.

Tornado wreaks havoc on OARDC campus

On September 16, 2010, an EF-2 tornado, with wind speeds of up to 130 miles per hour, struck the Ohio Agricultural Research and Development Center’s (OARDC) campus in Wooster. The tornado rolled along a 200-yard-wide path through campus. Trees were felled, vehicles overturned, windows blown out, greenhouses destroyed and buildings reduced to rubble. The tornado exited campus at Secrest Arboretum, where it leveled about a quarter of the 120-acre arboretum, including a recently opened visitor pavilion, display gardens, and more than 1,000 trees. Some of the trees were over 100 years old and had been planted by the arboretum’s founder, Edmund Secrest. Over the past 100 years, the arboretum has grown into an outdoor laboratory and educational display garden, strengthening the relationship between people and plants through research-based knowledge. To help in the rebuilding process, the university established the Secrest Arboretum Tornado Fund.