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THE POWER OF PARTNERSHIP
Case Western Reserve’s research partnership with area health care institutions won a $64.6 million federal grant to continue the collaboration. Officially known as a Clinical and Translational Science Award (CTSA), the grant from the National Institutes of Health aims to accelerate the process of making medical discoveries and then taking them to patients. Case Western Reserve led the cooperative effort that first earned the prestigious CTSA in 2007, and then spearheaded the grant renewal last summer. The first award totaled $64 million, while this one, also for five years, totaled $64.6 million.

“With this new award, the NIH sent a powerful message to all of us: ‘Keep up the good work,’” said the grant’s principal investigator, Pamela B. Davis, MD, PhD, School of Medicine dean and the university’s vice president for medical affairs.

The partnership includes Cleveland Clinic, the Louis Stokes VA Medical Center, MetroHealth System and University Hospitals Case Medical Center. During the first grant period, more than 1,300 scientists and physicians participated in CTSA activities, and their efforts attracted another $150 million in additional grant funding and $740 million in private sector investment. Initiatives ranged from comprehensive mentoring programs to help junior scholars learn how to secure funding and conduct successful research, extensive neighborhood outreach to promote healthier eating and activity, and focused efforts to bring breakthroughs to market much more quickly.

“Our shared commitment to work together to advance the health of all patients in our region has driven scientists and investigators in the partner institutions to overcome barriers. Progress has exceeded all expectations,” said Richard A. Rudick, MD, vice chair of the Neurological Institute at Cleveland Clinic, who serves as the effort’s co-principal investigator.

“It’s been an honor to work on a project that brings our amazing health care institutions together on behalf of our community.”
When it comes to health, place matters, according to researchers at the School of Medicine. The Prevention Research Center for Healthy Neighborhoods released its first collection of public health data, which showed the prevalence of chronic conditions like obesity, diabetes and high blood pressure often varied among Cleveland adults based on factors like location, race, age and gender.

Researchers reanalyzed the Behavioral Risk factor Surveillance Survey collected across Cleveland from 2005 to 2009, creating seven geographic neighborhood clusters within the city. Overall, Cleveland residents suffer disproportionately from chronic disease and are less likely to participate in proactive preventive health behaviors than others across the state or nation. Within the city, the highest levels of hypertension, obesity and diabetes were consistently found in Cleveland’s southeast neighborhoods. These data sets are being used by community partners to prioritize strategic health issues and to target and monitor interventions.

Case Western Reserve University School of Medicine researchers have documented the harmful effects of the drug Ecstasy on fetal and infant development.

In the first study to address the issues, published earlier this year in Neuratoxiconology and Teratology, principal investigator and School of Medicine pediatrics researcher Lynn T. Singer, PhD, showed that Ecstasy use among pregnant women affects the chemical signaling that determines a baby’s gender and contributes to developmental delays.

A second study, published in Pediatric, demonstrated that delays in motor development persisted through 12 months of age in infants who were heavily exposed to the drug in utero.

Communication between dendritic cells (DCs) and natural killer (NK) cells initiate the body’s immune response. But School of Medicine research shows that these interactions also increase susceptibility to HIV infection.

A team led by immunologist Helene Bernstein, MD, PhD, discovered these interactions lead to cellular activation, maturation and CD4 expression—which enables HIV to infect cells. They found that after interacting with NK cells, DCs were better able to transfer HIV to T cells, and the same matured DC cells enhanced HIV infection of NK cells. New research will explore therapies that enable cellular communication without facilitating HIV infection.

Case Western Reserve University School of Medicine has secured $6.4 million in grants to support its efforts to enhance care for underserved populations. The Medicaid Technical Assistance and Policy Program (MEDTAPP) Healthcare Access Initiative will help the school attract, train and retain health care providers to better serve Ohio’s Medicaid population.

One initiative the funding will support is a collaborative effort of the school’s Department of Family Medicine, Case Western Reserve’s Frances Payne Bolton School of Nursing and the MetroHealth System. The three organizations will develop an interdisciplinary educational program focused on primary care and behavioral health. Additional programs aim to improve care for Medicaid beneficiaries in the areas of pediatrics, psychiatry and dentistry.
SLEEP DISORDERS PREVALENT AMONG CHILDREN WITH KIDNEY DISEASE

A good night’s rest could be elusive for children with chronic kidney disease, according to new research from Case Western Reserve University School of Medicine.

While sleep disorders are common in adults with chronic kidney disease, little is known about their prevalence in children and adolescents. Pediatrics experts surveyed sleep habits in 150 school-aged patients in various stages of kidney damage.

They assessed four symptoms: excessive daytime sleepiness, sleep-disordered breathing, restless leg syndrome symptoms and insufficient sleep.

More than 58 percent of patients reported symptoms of sleep disturbance that interfered with their quality of life.