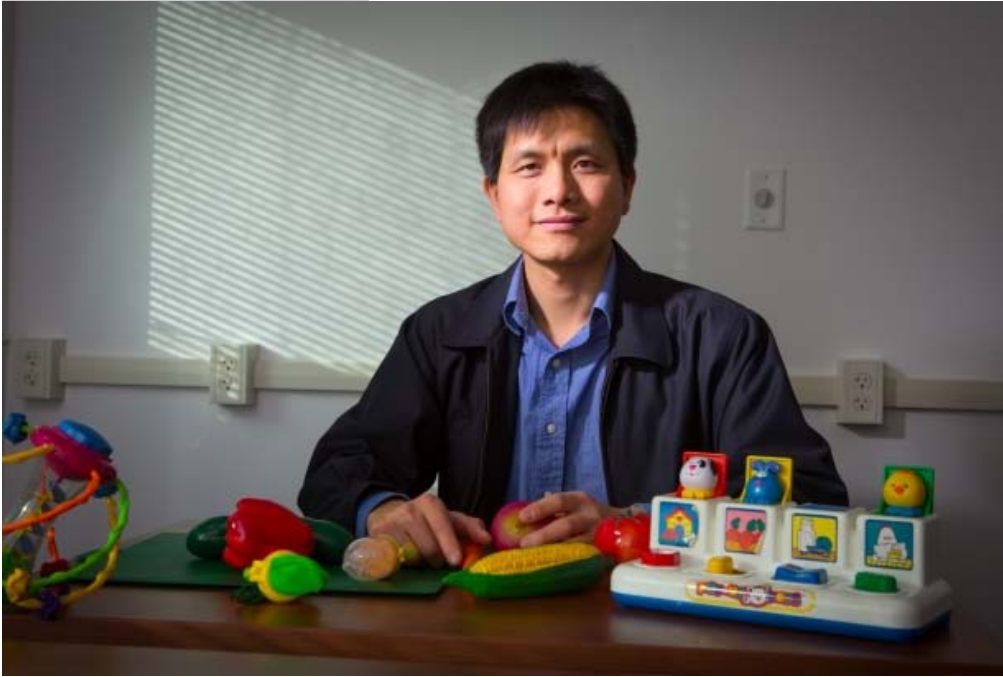


Examining the effect of maternal smoking on child obesity

Posted on 12/15/16 at 11:52 am



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"Pediatric obesity prevention by maternal smoking cessation in pregnancy and lactation"

Observational studies demonstrate that a mother's smoking during pregnancy is a risk factor for pediatric obesity, but to date there has been no experimental evidence for a causal link. A pilot study at UB's Jacobs School of Medicine and Biomedical Sciences aims to close that gap.

Principal investigator Xiaozhong Wen, MD, PhD, assistant professor in the Division of Behavioral Medicine, Department of Pediatrics, and his co-investigators have devised a randomized, controlled experiment to examine the connection between maternal smoking during pregnancy and lactation and childhood obesity.

The study will enlist 40 pregnant women who are smokers and randomly assign 30 of them to a "treatment" group. They will receive a multi-component intervention consisting of education, feedback, contingent financial incentives and peer support to help quit smoking. The other 10 "usual care controls" will receive only the education component. Of the women in the multi-component group who quit smoking through the end of pregnancy (estimated to be about 20 women), half will be randomly assigned to a continuous multi-component intervention group during lactation and half to an education-only control group.

Smoking cessation will be measured via exhaled breath CO and urine sample tests. Infants will be measured for weight during their hospital stay and then monthly until six months of age.

The two-phase randomization will separate the effects of quitting smoking on infant weight gain at two critical periods: pregnancy and lactation. Investigators hope to demonstrate a novel intervention that will help prevent childhood obesity and the negative consequences it has for a child's health later in life, while improving the mother's health as well.

The \$75,000 grant for this pilot study was awarded by the Clinical and Translational Sciences Award (CTSA) and funded by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number UL1TR001412. Investigators will use the results to strengthen their proposal for an NIH R01 grant to conduct a larger scale clinical study examining the effects of maternal smoking on child obesity. The study advances the CTSA's goals of reducing health care disparities in Western New York and involving under-represented groups in clinical research, while helping to attract outside funding.