LSUHSC leading effort to make a difference one baby at a time

Dr. Rebekah Gee, Assistant Professor of Health Policy and Management and Obstetrics and Gynecology in our Schools of Public Health and Medicine, kicked off a media launch of the Best Babies Zone in the Hollygrove neighborhood of New Orleans this week. New Orleans is one of only four US cities piloting the program. The project is funded by a three-year $202,259 grant to the LSUHSC School of Public Health from the W.K. Kellogg Foundation. Dr. Gee is the Principal Investigator on the grant.

Creating a Best Babies Zone allows us to address social determinants of health that are outside of the medical care of patients and to focus on the fundamentals of health—safe living environments, healthy food, adequate education and economic opportunity—to give babies born in this neighborhood the best chance to thrive and reach their full potential in life.

LSUHSC is working with Hollygrove residents, Healthy Start New Orleans, the New Orleans Health Department, DHH, and community-based agencies to target issues that threaten the quality of life and reduce infant mortality by half in Hollygrove in ten years and decrease the number of low birth weight babies born in this community.

LSUHSC’s Cui awarded $1.5 million NCI grant to study link between chronic inflammation & cancer

Yan Cui, PhD, Associate Professor of Microbiology, Immunology, & Parasitology at LSU Health Sciences Center New Orleans and the LSUHSC Stanley S. Scott Cancer Center, has been awarded a $1.5 million grant over five years by the National Cancer Institute to study the role of chronic inflammation in the development and progression of cancer.

Tumor suppressor protein 53, or p53, is a crucial molecule that is known to prevent cancer by either directly killing cancer cells or by stopping cancer cells from multiplying. The loss of p53 function resulting from genetic changes is detected in 50% of tumors and is considered to be one of the leading causes of cancer. However, p53 dysfunction caused by these mutations can also occur in normal cells surrounding the cancer cells, called stromal cells, and mutations in the p53 gene in some of them are associated with increased cancer spread and poor prognosis. According to the National Cancer Institute, a stromal cell is a type of cell...
Boil before eating! LSUHSC research identifies risk for parasite infection

A study conducted by Dr. James Diaz, Professor of Public Health and Preventive Medicine and Program Director of the Environmental/Occupational Health Sciences Program at the LSU Health Sciences Center New Orleans School of Public Health, analyzed cases of a parasitic lung infection and found new modes of transmission and associated behaviors, identifying new groups of people at risk. The work is published in the July 2013 issue of *Clinical Microbiology Reviews*.

Among the organisms that can harbor the Paragonimus parasite are freshwater Asian crabs and native US crawfish. Cases in the US were rare prior to 1984. However, these days Asian crabs are being served far from home and in new ways. The parasitic infection, paragonimiasis, can occur when the crabs are eaten raw in sushi bars or alcohol-pickled called drunken crabs in martinis. The one indigenous Paragonimus species can transmit infection through undercooked mudbugs at a crawfish boil and through exposure while floating, paddling, canoeing or camping on waterways and in areas where crawfish live. A person can become ill from eating only one.

Dr. Diaz hopes to raise the index of suspicion among medical professionals so non-traditional patients and those not exhibiting all symptoms but who are at risk can be diagnosed and treated to avoid potentially life-threatening lung or brain complications.

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...of cell that makes up certain types of connective tissue (supporting tissue that surrounds other tissues and organs). When cells become malignant, the surrounding stromal cells also change. So far, it is not entirely clear how these adjacent, normal cells that lack functional p53 affect the growth and replication of cancer cells.

This grant award is based upon published studies performed in Dr. Cui’s laboratory, one of which was chronicled as a cover story in the March 15, 2013, issue of *Cancer Research*. These studies demonstrated that a lack of functional p53 in tumor-associated stromal cells, as well as some of the immune cells, leads to an inflammatory microenvironment that suppresses the body’s immune system to fight the cancer, increases the number of stromal cells infiltrating the tumor, and promotes blood vessel formation to nourish the tumor leading to its accelerated growth.

Dr. Cui will collaborate with Augusto Ochoa, MD, Director of the LSUHSC Stanley S. Scott Cancer Center, and Paulo Rodriguez, PhD, an assistant professor at LSU Health Sciences Center New Orleans, both leaders in the field of inflammatory cells and cancer. The long-term goal is to develop new approaches that target the p53 pathway and tumor-associated stromal cells to prevent or advance the treatment of cancer.