

## DOE – Medical and Infectious Disease Update – Wednesday, May 19, 2004

DOE weekly updates on Bird Flu, Human Influenza, West Nile Virus, or other illnesses and medical issues will continue as appropriate or as requested. The following information is current as of Thursday, May 20, 2004, 0700 hours, EST. Information presented is routinely taken from the Centers for Disease Control and Prevention (**CDC**), <http://www.cdc.gov/>, The World Health Organization (**WHO**), <http://www.who.int/en/>, the Department of Defense Global Emerging Infections Surveillance and Response System site, (**DoD-GEIS**) - <http://www.geis.ha.osd.mil/>, and other creditable sources.

### Recent News

**ALLERGY-The Accuweather page** provides current air quality information with specific charts for **Grass Pollen**, **Overall Pollen**, **Ragweed Pollen**, and **Tree Pollen** ...  
[http://www.accuweather.com/adcbn/public/maps\\_index.asp?type=airq](http://www.accuweather.com/adcbn/public/maps_index.asp?type=airq).

**Updated Directory Of DOE Site Medical Clinics Is Available On-Line:** DOE clinic directors are urged to visit this site at the link below, and verify the accuracy of the information. Please send additions or corrections to Claudia Beach, RN, COHN, 301-903-9826, E-mail: [claudia.beach@eh.doe.gov](mailto:claudia.beach@eh.doe.gov), or to the Editor ... <http://tis.eh.doe.gov/health/occhealth/directory.pdf>.

**China's latest SARS outbreak has been contained, but biosafety concerns remain-WHO Update 7** - 18May2004, It has been more than three weeks since the last case was placed in isolation in China's latest SARS outbreak, prompting the World Health Organization to declare that the chain of human-to-human transmission appears to have been broken ... [http://www.who.int/csr/don/2004\\_05\\_18a/en/](http://www.who.int/csr/don/2004_05_18a/en/).

**Insulin could hold the key (to diabetes & colon cancer)** – 18May2004, by Liz Szabo, **USA TODAY** --Doctors have long known that obesity, inactivity and starchy diets increase the risk of diabetes. Now, a growing number of scientists suspect that the same risk factors contribute to colon cancer. What links two such different diseases? Evidence increasingly points to excess insulin. Insulin regulates more than just blood sugar. It also controls growth, including the disorderly cell division that can lead to tumors ... [http://www.usatoday.com/news/health/2004-05-18-usat-insulin\\_x.htm](http://www.usatoday.com/news/health/2004-05-18-usat-insulin_x.htm).

**Longest scientific study yet backs Atkins diet** - 18May2004, by Andy Coghlan, **NewScientist** --The claimed benefits of the controversial low-carbohydrate Atkins diet have been reaffirmed in two new studies, one of which is the longest study to date. "I think it's good news for Atkins dieters," says Linda Stern, who led the first study of 132 obese patients at the Veterans Affairs Medical Center in Philadelphia, US ... Both new studies found that subjects on the Atkins diet shed significant amounts of weight without harmful effects on blood fats and sugars. But the studies have failed to silence critics of the diet, who want the US government to investigate alleged adverse effects ... A second, six-month study on 120 overweight patients at **Duke University Medical Center** in Durham, North Carolina, echoes the first, with low-carbohydrate dieters shedding an average of 12 kilos, twice that lost by those on a low-fat regime (*Annals of Internal Medicine*, vol 140, p769 ; [Study: Low-Carb Diet More Effective Than Low-Fat Diet](#)). And the pattern of blood fats and sugars mirrored that in Stern's study ... <http://www.newscientist.com/news/news.jsp?id=ns99995003>.

**Researchers study effect of green tea** – 17May2004, **The Washington Times**, NEW ORLEANS, LA (**UPI**) --Studies presented at Digestive Disease Week in New Orleans show that simple dietary changes can reduce the risk of cancer and improve digestive health ... A research team from the Harvard Medical School and the Veterans Administration hospital in Boston presented

research that one of the major chemical ingredients of green tea serves as both a preventative for cancer of the esophagus and a treatment for it ... <http://washingtontimes.com/upi-breaking/20040517-070944-8642r.htm>.

### **New pill found to help prevent diarrhea in Mexico visitors –**

16May2004, by Eric Berger, Medical Writer, **The Houston Chronicle** --The next time you take a trip down south, take a little pink pill and say thanks to Dr. Herbert DuPont. For 30 years, DuPont has studied the exceedingly unpleasant but all-too-common ailment faced by visitors to Mexico and other developing countries: traveler's sickness. Now with the U.S. Food and Drug Administration poised to approve a drug called rifaximin, a pill the St. Luke's Episcopal Hospital doctor has tested for nearly a decade, DuPont may finally have a good answer for travelers who want to avoid getting sick but still enjoy local food. DuPont has found that the drug prevented diarrhea in more than 80 percent of travelers in Mexico who took at least one pill a day. Given that 40 percent of the 17 million Americans who now travel there each year get sick, the market potential is huge ...

<http://www.chron.com/cs/CDA/ssistory.mpl/front/2570499>.

### **Researchers: Exercise Lowers Employers' Health Costs - 14 May**

2004, WASHINGTON (**Reuters**) --Companies can save millions in health-care costs simply by encouraging their employees to exercise a little bit, researchers reported on Friday. They said obese employees have higher health-care costs, but lowered those expenses by exercising just a couple of times a week -- without even losing any weight. Feifei Wang and colleagues at the University of Michigan studied 23,500 workers at General Motors. They estimated that getting the most sedentary obese workers to exercise would have saved about \$790,000 a year, or about 1.5 percent of health-care costs for the whole group ... <http://www.reuters.com/newsArticle.jhtml?type=healthNews&storyID=5149966>.

### **Plant-like Enzyme Acts As Key Life Cycle Switch In Malaria**

**Parasite** – 14May2004, **ScienceDaily** --An essential switch in the life cycle of the malaria parasite has been uncovered by researchers in England, Germany and Holland. They have established that to infect mosquitoes that transmit malaria, the parasites depend on a type of molecule normally found in plants, which they have named Calcium-Dependent Protein Kinase 4 (CDPK4). The finding, based on studies of the malaria parasite of rodents, *Plasmodium berghei*, is described as basic science, but the authors suggest it may give drug researchers a specific and safe target against which to screen potential anti-malarial drug compounds ...

<http://www.sciencedaily.com/releases/2004/05/040514030308.htm>.

### **Dual Purpose Scaffold Stimulates Cartilage Repair in Knees and Other Damaged Joints - 13May2004, [The Whitaker Foundation](#), ARLINGTON, Va., --**

With an eye toward reducing the need for knee replacement surgery, biomedical engineers have created a dual purpose scaffold that cushions a damaged joint while providing the support that cartilage cells need to generate new tissue. Whitaker investigator Lori Setton, Ph.D., and collaborator and orthopedic surgeon T. Parker Vail, M.D., both of Duke University, stimulated new cartilage growth in knees using a light-activated polymer hydrogel doped with hyaluronan, a natural component of joint fluid and cartilage ... <http://www.whitaker.org/news/setton.html>.

### **Bird Flu 2003-2004: Doe Special Medical Update** – With information from

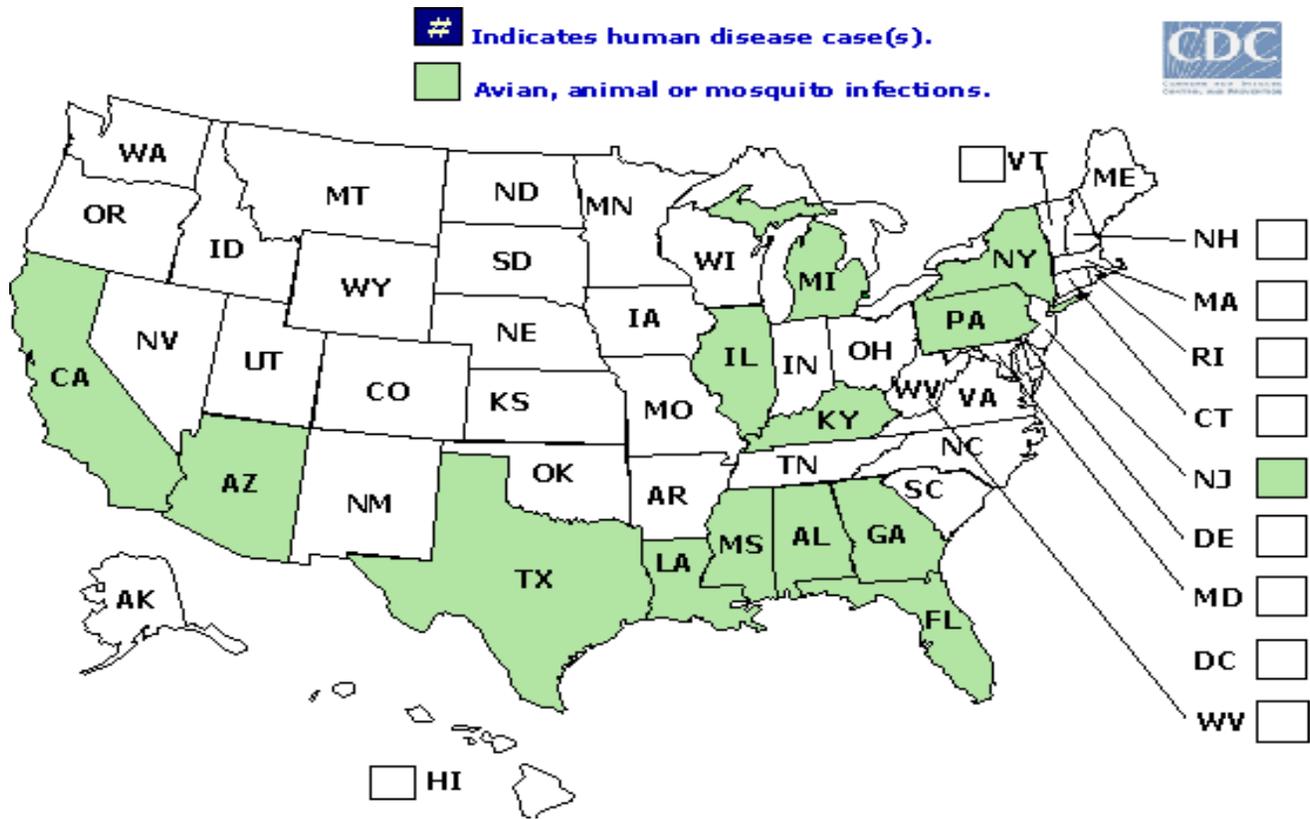
WHO and the CDC, this update also explains the concepts of viral infection, viral replication, antigenic “drift”, and antigenic “shift” ... [http://www.eh.doe.gov/health/news/BIRDFLU2003-2004\\_DOESPECIALUPDATE\\_B200402091.pdf](http://www.eh.doe.gov/health/news/BIRDFLU2003-2004_DOESPECIALUPDATE_B200402091.pdf) (PDF) or for a choice of PDF or Word format, <http://www.eh.doe.gov/health/index.html>, and scroll down under "News and Features".

**WHO: Avian influenza-fact sheet** – 5January2004-Avian influenza (“bird flu”) and the significance of its transmission to humans ... [http://www.who.int/csr/don/2004\\_01\\_15/en/](http://www.who.int/csr/don/2004_01_15/en/).

**2004 West Nile Virus Activity in the United States, reported to CDC.** Maps reporting WNV avian and veterinary activity occurring during 2004 are updated regularly.

**2004 West Nile Virus Activity in the United States  
(reported to CDC as of May 19, 2004\*)**

The human case previously reported in Ohio was determined to be negative for WNV infection upon further testing.



\*Currently, WNV maps are updated regularly to reflect surveillance reports released by state and local health departments to the CDC Arbonet system for public distribution. Map shows the distribution of avian, animal, or mosquito infection occurring during 2004 with number of human cases, if any, by state. If West Nile virus infection is reported to CDC Arbonet in any area of a state, that entire state is shaded accordingly.

<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

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