

DOE – Medical and Infectious Disease Update – Wednesday, April 14, 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, April 15, 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.

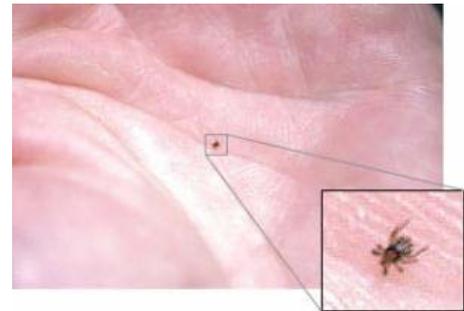
Recruitment of Smallpox Test Volunteers Halted; Vaccine's Potential Side Effect Prompts Biodefense Contractor's Precaution - 14April2004, *By Griff Witte and Justin Gillis*, Washington Post Staff Writers --Biodefense contractor Acambis PLC said yesterday it would stop recruiting people to test a smallpox vaccine the U.S. government had purchased as a precaution against terrorist attacks after at least one volunteer experienced heart inflammation. The company said it would continue to study the vaccine's effect on people who had already taken the drug, but yesterday's disclosure reopened debate over the safety of one of the government's primary defenses against the deadly infectious disease. Acambis said the potential side effect was discovered during advanced clinical trials designed to test the effectiveness and safety of Acambis's product, ACAM2000, against that of Dryvax, a smallpox vaccine that has already been licensed for use. The company said three people experienced heart inflammation among the 1,132 volunteers who had received one or the other vaccine. The symptoms were reported in volunteers from both groups ... <http://www.washingtonpost.com/wp-dyn/articles/A9604-2004Apr13.html>.

With Tiny Brain Implants, Just Thinking May Make It So – 13 April 2004, *By Andrew Pollack*, The New York Times --Can a machine read a person's mind? A medical device company is about to find out. Cyberkinetics Inc. plans to implant a tiny chip in the brains of five paralyzed people in an effort to enable them to operate a computer by thought alone ... The implants, part of what Cyberkinetics calls its BrainGate system, could eventually help people with spinal cord injuries, strokes, Lou Gehrig's disease or other ailments to communicate better or even to operate lights and other devices through a kind of neural remote control ...
<http://www.nytimes.com/2004/04/13/health/13BRAI.html> - (Note: The NY Times Web service is free but requires that you register on their site, a relatively painless process - Ed.)

Vitamin C Reduces Key Disease Protein – 12April2004, BERKELEY, California (United Press International via COMTEX) --U.S. researchers said Monday that Vitamin C supplements reduce levels of a key marker of inflammation and chronic disease risk in humans. The marker, called C-reactive protein, has been linked to increased risk of heart disease, diabetes and Alzheimer's disease. The researchers, at the University of California, Berkeley, studied participants who took about 500 milligrams of vitamin C supplements per day for two months. During that time, they saw a 24-percent drop in C-reactive protein levels. Inflammation occurs as part of the body's defense against infection or injury. The body triggers the production of inflammatory chemicals, such as interleukin-6, that set off the production of CRP by the liver. CRP levels can go up 100-fold within a short period of time as a reaction to an infection, but then drop back down rapidly after infection passes, researchers said, noting they do not yet understand how vitamin C lowers CRP levels ...
http://www.nlm.nih.gov/medlineplus/news/fullstory_17089.html.

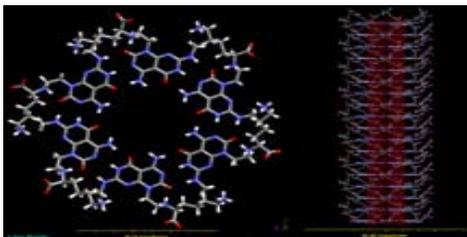
You and Your Medical Records – 12April2004, *By Sid Kirchheimer*, WebMD --Inside that manila folder may be the most significant story you'll ever read: Your doctor's appointment-by-appointment account of your health -- or at least the attempts to preserve it. Yet most Americans have never read their own medical records, even though most want to, according to new research. Specifically, a survey of 4,500 adults indicates that one in three people say they are "very interested" in reading their medical records, while 43% said they were "somewhat interested." So what's stopping them? Actually, nothing. "Patients are legally entitled to access their own medical records whenever they want to, but many people don't realize they have this legal entitlement," ... <http://dailynews.att.net/cgi-bin/health?e=pub&dt=040412&cat=women&st=women98600&src=webmd>.

Researchers Find No Safe Place To Sit In California Tick-infested Forest – 9April2004, *ScienceDaily*, Berkeley --After a long hike through some of California's forests, it may be tempting to rest on a log or lean against a tree. Wrong move, say researchers at the University of California, Berkeley, who found that such activities may increase the risk of acquiring ticks, harboring the Lyme disease bacterium. "We sat on logs for only five minutes at a time, and in 30 percent of the cases, it resulted in exposure to ticks," said Robert Lane, professor in the Division of Insect Biology at UC Berkeley's College of Natural Resources and lead investigator of the study. ... Most human cases of Lyme disease in northwestern California appears to be transmitted by **young nymphal ticks, which are notoriously difficult to detect because they are as small as poppy seeds** ... <http://www.sciencedaily.com/releases/2004/04/040409090711.htm>.



Self-assembling 'Nanotubes' Offer Promise For Future Artificial Joints - 9April2004, by Emil Venere, *Purdue News*, WEST LAFAYETTE, Ind. --

Tiny "nanotubes" that assemble themselves using the same chemistry as DNA could be ideal for creating better artificial joints and other body implants. Researchers at Purdue University, the University of Alberta and Canada's National Institute for Nanotechnology have discovered that bone cells called osteoblasts attach better to nanotube-coated titanium than they do to conventional titanium used to make artificial joints. "We have demonstrated the same improved bone-cell adhesion with other materials, but these nanotubes are especially promising for biomedical applications because we'll probably be able to tailor them for specific parts of the body,"



said Thomas Webster, an assistant professor of biomedical engineering at Purdue ... <http://news.uns.purdue.edu/UNS/html4ever/2004/040409.Webster.rossette.html>.

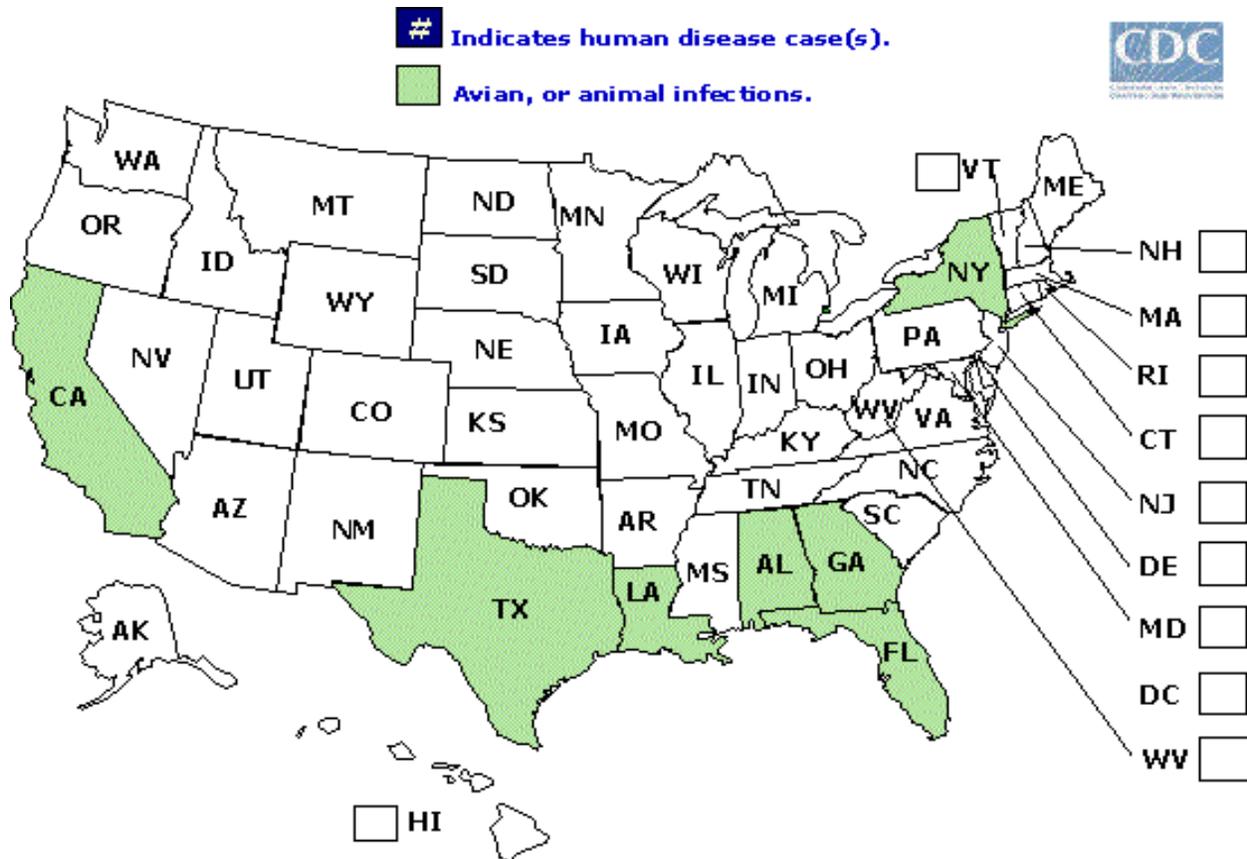
Bird Flu 2003-2004: Doe Special Medical Update – With information from WHO and the CDC, this update also explains the concepts of viral infection, viral replication, antigenic "drift", and antigenic "shift" ... http://www.eh.doe.gov/health/news/BIRDFLU2003-2004_DOESPECIALUPDATE_B200402091.pdf (PDF) or 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/.

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. **NO human WNV cases** occurring during 2004 have yet been reported.

2004 West Nile Virus Activity in the United States, reported to CDC as of April 7, 2004.



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

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