



■ **Study linking autism to vaccine retracted.**

The British medical journal *The Lancet* has retracted a 1998 study suggesting a link between autism and the measles, mumps, and rubella vaccine, reports *USA Today*. The journal published the controversial paper by Andrew Wakefield and colleagues in 1998, which prompted many British parents to abandon the vaccine, leading to a resurgence of measles. Subsequent studies have found no proof the vaccine is connected to autism. The retraction came a week after the Britain's General Medical Council ruled that Wakefield had been dishonest and unethical in gathering data for his study.

■ **Norway sees success with test/isolate MRSA solution.**

MRSA represents more than 65% of hospital staph infections in the U.S. and 44% in the U.K., but only 1% in Norway. Norway's strict limit on antibiotic use and a policy of testing and isolating infected patients and healthcare providers have resulted in far fewer cases of MRSA. MRSA infections kill an estimated 19,000 patients in U.S. hospitals each year. Attempts to control MRSA have been made at individual hospitals. Beth Israel Medical Center in Newark, NJ, and University of Maryland Medical Center in Baltimore are among hospitals that have reported significantly reduced cases with an increased screening program modeled after the Scandinavian country's initiative.



■ **Easing H1N1 pandemic may let in new flu viruses.**

Signs from many parts of Europe and the United States suggest circulation of H1N1 is declining, but it is still too early to say the pandemic is over, *Reuters* reports. The declining wave of pandemic H1N1 flu, however, is likely to be followed by new, unknown strains of seasonal flu which health authorities must watch carefully to devise protection measures, European flu experts say. The European Center for Disease Prevention and Control (ECDC) warns that flu viruses "never stand still," and governments should remain on guard for possible changes in the virus and new strains. The ECDC says the pan-

dem H1N1 flu did not completely halt other flu viruses but was the predominant strain, so its decline could open the way for a new mix of inter pandemic or seasonal flu viruses.



■ **Standard tests over diagnose peanut allergy.**

As many as four in five children diagnosed with peanut allergy on standard tests alone may not be truly allergic to peanuts, U.K. researchers found, and a new test could help to cut the numbers wrongly diagnosed. Among 79 8-year-old children who were deemed peanut-sensitive by standard allergy testing, only seven turned out to have true allergies when they underwent more extensive testing. Peanut allergy is typically diagnosed through a skin test and/or a blood test that measures levels of IgE antibodies. But the current findings reported in the January issue of *Journal of Allergy and Clinical Immunology* suggest that a majority of children who test positive for peanut sensitivity on standard tests do not have true allergies. The researchers also say a new type of blood test, called component-resolved diagnostics (CRD), may be more precise than standard IgE tests. CRD involves exposing blood samples to specific, purified peanut proteins and measuring the IgE antibody response. This is different from traditional IgE blood tests, which use crude peanut extracts that contain numerous allergenic and non-allergenic molecules. CRD testing showed that the IgE response to a particular peanut protein, called Ara H2, may prove useful in separating children with true allergies from those with a peanut sensitivity.



■ **DNA test could detect blood disorder in newborns.**

Genetic testing in newborns can help identify T-cell lymphopenia, a blood disorder that, according to new research, disrupts the function of the immune system, *HealthDay* reports. Babies with T-cell lymphopenia can appear to be healthy and have no family history of immunodeficiency, so many infants with severe T-cell deficiencies are not identified until life-threatening infections occur. As part of a study, which was published in the Dec. 9 issue of the *Journal of the American*

Medical Association, researchers screened all infants born in Wisconsin in 2008 for T-cell lymphopenia using a DNA test that measures the number of T-cell receptor excision circles (TREC) in a blood sample. Of the 71,000 infants screened, 11 were found to have at least one abnormal TREC test result, eight of whom were diagnosed with T-cell lymphopenia.

■ **Gene could predict breast-cancer treatment success/failure.**

Scientists have identified a gene which could predict whether women with breast cancer will respond to treatment with tamoxifen, according to findings published in *Cancer Research*. Researchers at Queen's University in Belfast, U.K., say breast-cancer patients with high levels of the gene FKBPL are more likely to respond to the commonly used drug tamoxifen. Conversely, low levels of FKBPL indicate a poor response. It is estimated that tamoxifen is only effective in around two-thirds of breast-cancer patients. The researchers say using the FKBPL gene to test patients could help many patients avoid unnecessary, ineffective treatment.



■ **Blood test could diagnose RA before symptoms appear.**

Results of a new study have suggested that a blood test may be able to predict rheumatoid arthritis (RA) and can act as an early warning sign of the disease long before symptoms appear. Researchers from the American College of Rheumatology analyzed blood samples taken from 86 people before the onset of RA and compared the results to samples taken after symptoms had appeared. They also examined a group of 256 participants who did not have the disease. The study found that levels of inflammatory proteins called cytokines increased significantly in patients prior to the development of RA. The researchers believe that a blood test can screen for these elevated protein levels to diagnose RA before symptoms emerge.

■ **Low vitamin D may worsen asthma.**

People with asthma who have low levels of vitamin D fare worse than those with high levels of the vitamin, a new study finds. Researchers found that asthmatics with high vitamin D levels have better lung function and respond better to treatment than do asthmatics with low vitamin D levels, reports *HealthDay*. For

the study, published in the Jan. 28 online edition of the *American Journal of Respiratory and Critical Care Medicine*, researchers took vitamin D levels of 54 asthmatics and assessed lung function, airway hyper-responsiveness, which is the prevalence of airway constriction, and response to steroid treatment. People with low levels of vitamin D in their blood did worse on the tests that evaluated lung function and airway hyper-responsiveness, the researchers found. In those with vitamin levels below 30 ng/mL, airway hyper-responsiveness almost doubled, compared to those with more vitamin D in their blood.



Zoonotics

■ **New monkey malaria potentially fatal to humans.** Researchers in Malaysia have found that an emerging new form of malaria is widespread among humans in the region. The researchers conducted a prospective study to identify key laboratory and clinical features of the new form of malarial infection, which is caused by the mosquito parasite *Plasmodium knowlesi*, previously thought to infect only monkeys, particularly the long-tailed and pig-tailed macaques that live in the rainforests of Southeast Asia. The study showed that the parasite is also widespread among humans in Malaysia, which — with further reports from neighboring countries — has led experts to recognize *P knowlesi* as the fifth cause of malaria in humans. Infection by *P knowlesi* is potentially fatal because the parasites reproduce every 24 hours in the blood, making early diagnosis and treatment essential. There are many species of malaria parasite, four of which commonly cause disease in humans, the most deadly being *P falciparum*, found mostly in African countries. Another species is *P malariae*, which usually causes milder symptoms and is found in tropical and sub-tropical regions around the world. The researchers, who published the study in the September 2009 issue of *Clinical Infectious Diseases*, say *P knowlesi* malaria can easily be confused with *P malariae* since parasites look similar by microscopy, but the latter causes a benign form of malaria.

■ **Drug-resistant malaria discovered in Cambodia.** Scientists have confirmed the first signs of malaria resistant to artemisinin, the drug most used against the disease, in Cambodia's O'treng village, reports *The New*

York Times. An expert said virtually every case of malaria he sees in western Cambodia is now resistant to drugs; and in the Pailin area, patients who are given artemisinin take twice as long or more to recover when compared with patients in other areas who take the drug. Malaria experts note that several times in the past, this same area around the Thai-Cambodian border has been a starting point for drug-resistant strains of malaria, starting in the 1950s with the drug chloroquine.



Student news

■ **Rice University's lab-in-a-backpack goes to Ecuador.** Rice University's Rice 360°: Institute for Global Health Technologies and Beyond Traditional Borders (BTB) initiative sent to Ecuador 24 custom-made backpacks that include microscopes, centrifuges, pulse oximeters, otoscopes, and other items healthcare workers need to diagnose an illness in the field. A custom-designed power-distribution box and solar cell ensure the equipment can be used anywhere. The initiative began as a student project and has been sent for limited trials



to Ecuador, Haiti, Honduras, Guatemala, Nicaragua, the Dominican Republic, Malawi, Lesotho, Botswana, Swaziland, and Myanmar. Nineteen students, faculty, and staff members have worked on the pack's design for more than three years; FedEx donated transportation. Each year's trials have led to further refinements based on feedback from clinicians, technicians, and non-governmental organizations that have used the backpack to diagnose patients in the field. Rice 360° and BTB plan to develop a business model that will get more diagnostic packs into the field to help the world's poor. Follow the Rice team to Ecuador on Twitter <http://twitter.com/rice360> or Facebook www.facebook.com/Rice360, and read about the students' experiences at <http://ecuador.blogs.rice.edu>. □

Conferences

April 22-23. The 42nd Annual Oak Ridge Conference will be held at The Fairmont in San Jose, CA, and includes four sessions: Diagnostic technologies for resource-limited settings; novel multiplex platforms for diagnostics; emerging detection technologies for diagnostics; and novel separation and sample prep technologies. Learn more at www.aacc.org.

April 27-28. The 15th Annual Executive War College at the Sheraton New Orleans is designed to help lab administrators and pathologists learn practical methods for improving the organizational performance and financial success of their labs, including up-to-date information on market trends, lab-management methods, and effective financial strategies for enhancing revenues and profits. Register online at www.executivewarcollege.com.

May 4-6. CLMA ThinkLab'10 will take place at the MGM Grand, Las Vegas. ThinkLab'10 will feature a variety of educational sessions specifically designed for emerging lab leaders as well as seasoned C-Level executives with more than 40 breakout sessions covering a wide range of topics including molecular diagnostics. Learn more at www.clma.org/thinklab.

May 17-19. The Molecular Pathology Essentials Course 2010 at Hyatt Regency Atlanta will focus on the essential knowledge and current practice of clinical molecular pathology, with an emphasis on case-based examples and technologies. Register at www.aacc.org.

July 25-29. The 2010 AACC Annual Meeting and Clinical Lab Expo at the Anaheim [CA] Convention Center will include five plenary sessions, symposia, interactive workshops, short courses, brown-bag sessions, meet the experts, posters, and oral abstract presentations. Learn more at www.aacc.org.