Genomics Weekly News Digest

August 3, 2006

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CHRONIC DISEASE

Cancer

Comparison of individuals opting for BRCA1/2 or HNPCC genetic susceptibility testing with regard to coping, illness perceptions, illness experiences, family system characteristics and hereditary cancer distress

Twenty-three novel BRCA1 and BRCA2 sequence variations identified in a cohort of Swiss breast and ovarian cancer families

“A team of Danish researchers has isolated a third gene linked to the development of breast cancer”
(Aug 1) The Copenhagen Post Online reports, “Danish researchers have isolated a new gene responsible for breast cancer. A mutation of the gene can triple the risk of developing breast cancer.”

Clinical characteristics affect the impact of an uninformative DNA test result: the course of worry and distress experienced by women who apply for genetic testing for breast cancer

Family history of breast cancer as a risk factor for ovarian cancer in a prospective study

“New insights into mouth cancers”
(Aug 1) Reuters Health reports, “Mouth cancer develops in two distinct ways which determine the seriousness of the disease, scientists said on Tuesday, a finding that could lead to new ways of preventing and treating it.”

“Researchers develop blood test to detect lung cancer”
(July 31) EurekAlert! reports, “Lung cancer is the leading cause of cancer death for both men and women in the United States and around the world, mainly because lung cancers are found in late stages and the best treatment opportunities already have been missed.”

K-ras Mutations in Non-Small-Cell Lung Carcinoma: A Review
“University of Pennsylvania Researchers Find Role for MicroRNAs in Oxygenation, Nourishing of Colon Tumors”
(July 31) University of Pennsylvania reports, “Researchers from the University of Pennsylvania School of Veterinary Medicine have identified how molecules of microRNA are responsible for the growth of blood vessels in a model for human colon cancer.”

The I1307K APC polymorphism in Ashkenazi Jews with colorectal cancer: clinical and pathologic features

Genetic factors involved in the development of Helicobacter pylori-related gastric cancer

Study design options in evaluating gene-environment interactions: Practical considerations for a planned case-control study of pediatric leukemia
Goodman M & Dana Flanders W Pediatr Blood Cancer 2006 Jul

Cardiovascular Disease (including Hypertension and Stroke)

“Gene variations may increase stroke risk for younger women”
(Aug 1) EurekAlert! reports, “University of Maryland researchers have shown a strong association between specific genetic variations and an increased risk of stroke in younger women, adding to the growing evidence of possible genetic influences in stroke.”

Lifestyle, family history and progression of hypertension

Medico-genetic prediction of cerebral stroke risk
Klin Med (Mosk) 2006;84(6):49-51

Obesity

“Study pinpoints how genetic glitch could keep some people from feeling full”
(July 31) EurekAlert! reports, “Nearly 6 percent of morbidly obese children and adults have a genetic defect that keeps them feeling like their stomach is running on empty, no matter how much they have eaten.”

Gastrointestinal Disease

Genetic variants and the risk of Crohn’s disease: what does it mean for future disease management?

Metabolic Disorders

Screening for hereditary hemochromatosis: a systematic review for the U.S. Preventive Services Task Force

Immune System Disorders

“Increased odds of rheumatoid arthritis in women smokers without genetic risk factor”
(Aug 2) EurekAlert! reports, “Smoking increases the chance of developing rheumatoid arthritis in
women who otherwise lack genetic risk factors for the disease, reveals research published ahead of print in the Annals of the Rheumatic Diseases."

MATERNAL AND CHILD HEALTH / CHILDREN WITH SPECIAL HEALTH NEEDS

Congenital Conditions

Racial and Ethnic Disparity in Participation in DNA Collection at the Atlanta Site of the National Birth Defects Prevention Study

"Gene Discovery May Shed Light On Kidney Diseases; Second Gene Found For Alagille Syndrome May Have Broader Role"
(Aug 1) Medical News Today reports, "In a finding that may have broader implications for understanding kidney disorders, genetics researchers at The Children's Hospital of Philadelphia have identified a second gene that gives rise to Alagille syndrome, a genetic developmental disease that affects multiple organs."

MENTAL and NEUROLOGICAL CONDITIONS

Mental Health and Behavioral Conditions

"Association between famine and schizophrenia may yield clues about inherited diseases and conditions"
(Aug 2) EurekAlert! reports, "The higher risk of schizophrenia among offspring of expectant mothers living through famine could help us understand the genetic basis for that debilitating mental disorder, a group of researchers argue in a commentary piece in the Aug. 2 issue of JAMA."

A Description of the Process of Recruitment for Research Studies Investigating the Genetics of Psychotic Illness

Neurological Disorders

"From complex pathways to patient care, the MNI attacks Parkinson's disease from all sides"
(Aug 1) McGill reports, "As a world-class medical centre, the Montreal Neurological Institute and Hospital (MNI) at McGill University is able to treat patients with Parkinson's and make important discoveries about the disease all under the same roof."

PHARMACOGENOMICS

"SuperArray Bioscience Releases Over 36 Pathway-Focused Real-Time PCR Gene Panels For All Stages Of Drug Discovery And Development"
(Aug 3) Medical News Today reports, "SuperArray Bioscience (http://www.SuperArray.com) announced today that it will feature its real-time RT2Profiler™ PCR Arrays at the upcoming Drug Discovery Technology meeting at the Boston World Trade Center and Seaport Hotel from August 8 to 10."
Pharmacogenetics of Uridine Diphosphoglucuronosyltransferase (UGT) 1A Family Members and its Role in Patient Response to Irinotecan*
Nagar S & Blanchard RL Drug Metab Rev 2006;38(3):393-409

Applying pharmacogenomics to enhance the use of biomarkers for drug effect and drug safety

Pharmacogenetics of antiarrhythmic therapy

GENOMIC EPIDEMIOLOGY AND TOOLS FOR POPULATION HEALTH

A Fast, Unbiased and Exact Allelic Test for Case-Control Association Studies

National and ethnic mutation databases: recording populations' genography
Patrinos GP Hum Mutat 2006 Jul

Genetic variants and common diseases--better late than never

“Gene families studied to explore diversity”
(July 31) Daily India.com reports, “U.S. theoretical biologist Stephen Proulx is studying gene families to explore how genomes become diverse and evolve.”