

INTERNATIONAL STROKE GENETICS CONSORTIUM
5TH INTERNATIONAL WORKSHOP: JUNE 25 AND 26, 2009, MUNICH, GERMANY
MEETING PROGRAM HIGHLIGHTS

DAY 1: JUNE 25, 2009

- I. Welcome and Introductions (M. Dichgans)
 - a. Founding Principles of ISGC
 - b. History of the ISGC
 - c. Achievements to date
- II. Update on GWAS in Ischemic Stroke within the ISGC
 - a. Wellcome Trust Case Control Consortium Initiative on Ischemic Stroke (H. Markus)
 - i. Centered at St. George's University of London, UK
 - ii. Three-stage study: Initial European cohort, European replication cohort, US replication cohort
 - iii. First stage genotyping data to be available in Fall 2009
 - b. NINDS Consortium Initiative on Ischemic Stroke (J. Meschia)
 - i. Joint ISGC effort, coordinated by James Meschia and Steven Kittner
 - ii. RFA for a consortium grant through the NIH U01 mechanism
 - iii. 10 participating US centers
 - iv. Grant to be reviewed August 2009
 - c. NINDS Study on Gene-Environment Interactions (GEI) (B. Mitchell)
 - i. Centered at the U of Maryland, Baltimore USA
 - ii. Look at environmental exposures as risk factors for stroke
 - iii. Part of the GENEVA Consortium
 - iv. Project will utilize new Illumina technology: Omni 1 Quad
 - v. Genotyping to be completed Fall 2009
 - d. Australian Stroke Genetics Collaborative Group (J. Attia)
 - i. Centered at University of New South Wales/John Hunter Hospital in Australia
 - ii. Identify SNPs associated with stroke occurrence and outcome in Australian population
 - iii. Recruitment expected to be completed by the end of 2009
 - iv. Genotyping expecting to be completed in mid- 2010
 - e. ISGC Study on Candidate Loci derived from GWAs on vascular risk factors (V. Thijs)
 - i. Investigating whether risk loci for cardiovascular disease are involved in ischemic stroke
 - ii. Centered at University Hospital Leuven, Belgium
 - iii. Examined 39 previously discovered SNPs
 - iv. Results
 1. No association in IS for Coronary Artery Disease, Myocardial Infarction, or Chromosome 9 SNPs
 2. Weak association with Diabetes Mellitus SNPs
 3. Association with 4 Low Density Lipoprotein SNPs
 - v. Manuscript to be drafted

III. Invited Speakers: Update on GWAS in related phenotypes from groups outside the ISGC

- GWAs on Stroke in Population-based samples (the CHARGE Consortium) (M. Ikram)
- GWAs on Lipids and Myocardial Infarction (J. Erdmann)
- GWAs on Atrial Fibrillation (S. Kääh)
- Following up Signals obtained through GWA Studies (T. Meitinger)

DAY 2: JUNE 26, 2009

I. Update on GWAS in related phenotypes within the ISGC

- b. AHA-Bugher Initiative on White Matter Disease (N. Rost)
 - i. Cohort of prevalent ischemic stroke patients with MRI
 - ii. Meta-Analysis between Massachusetts General Hospital, Boston, and Mayo Clinic, Jacksonville
 - iii. Genotyping ongoing
 - iv. Collaborators welcome (Project Proposal was recently circulated to the ISGC)
- c. NHLBI Initiative on White Matter Disease (P. Nyquist)
 - i. Prospective cohort of healthy siblings of probands with premature CAD
 - ii. Siblings had more severe CAD than an older community-based population
 - iii. New grant has been awarded to perform MRI, CTA, and brachial artery testing
- d. NINDS Initiative on Intracerebral Hemorrhage
 - i. ISGC ICH GWAS (J. Rosand)
 1. Based at Massachusetts General Hospital, Boston USA
 2. Ongoing enrollment of prevalent ICH cases, with and without warfarin exposure
 3. Genotyping ongoing- expected completion in 2012
 4. Collaborators welcome
 5. Full collaborative meta-analysis with GERFHS: ICH study from U Cincinnati (D. Woo)
 - ii. GERFHS (D. Woo)
 1. Gene-environment Risk Factors for Hemorrhagic Stroke
 2. Based at University of Cincinnati, Cincinnati USA
 3. Recruitment and genotyping ongoing
 4. Full collaborative meta-analysis with ISGC ICH GWAS: ICH study based at Mass General Hospital (J. Rosand)
- e. CADISP Initiative (Cervical Artery Dissection) (S. Debette)
 - i. Examination of young patients with cervical artery dissection from 20 centers in 9 countries
 - ii. Recruitment and genotyping ongoing
 - iii. Still looking for additional collaborators to join effort (Project Proposal was previously circulated to the ISGC)
 - iv. Deadline to send DNA is September 2009

IV. Invited Speaker:

- a. Analyzing Existing Datasets / Gene – Gene Interactions (B. Müller-Myhsok)

- V. Discussion (Looking Forward: Collaboration as the Pace Speeds up)
 - a. Examination of the founding principles of the ISGC- do these need modification?
 - b. Pros and Cons of imposing more organizational structure on the Consortium
- VI. Brief review of additional projects within the ISGC
 - a. Chromosome 12 Replication Project (J. Rosand)
 - i. Meta-analysis of CHARGE Chromosome 12 finding in ISGC cohorts
 - ii. Replication was not demonstrated
 - iii. Collaborators still welcome
 - b. INTERSTROKE (G. Pare)
 - i. Examination of the population attributable risk of conventional and emerging risk factors for stroke overall and in different ethnic populations
 - ii. Recruitment ongoing
 - iii. Collaborators welcome
 - c. Stroke in young Fabry Patients (Rolfs)
 - d. ISGC Website (S. Bevan, L. Cortellini)
 - i. Looking to expand current website: more information/content needed in both the public and the Members Only areas of the site
 - ii. Suggestions:
 - 1. More photographs and information about those investigators involved in the ISGC
 - 2. Information on the public area regarding genetics-based risk factors
 - 3. Having presentations from ISGC workshops available to members
 - e. Stroke Subtype Classification inter - observer project (B. Worrall)
 - i. Three-stage design to examine validity of comparisons of phenotypic data across sites
 - ii. Currently, mainly US sites, but would like to expand to more European sites in future
 - f. Mitochondrial genetics and risk of stroke (J. Rosand)
 - i. Examination of the human mitochondrial genome to determine if associations exist between mitochondrial genes and cerebrovascular disease
 - ii. Currently looking at US and Polish cohorts
 - iii. Genotyping ongoing
 - iv. Looking to expand to more ISGC sites- collaborators welcome

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ATTENDEE LIST

Boston University School of Medicine, Boston MA, USA	Stéphanie Debette
Brigham & Women's Hospital, Boston MA, USA	Paul de Bakker
Celera, Alameda CA, USA	May Luke
Erasmus University, Rotterdam, Netherlands	Monique Breteler, M. Ikram
Hammersmith Hospitals & Imperial College London, UK	Pankaj Sharma
Jagiellonian University, Krakow, Poland	Agnieszka Slowik
Johns Hopkins University, Baltimore MD, USA	Paul Nyquist
John Hunter Hosp, University of Newcastle, New Lambdon NSW, Australia	John Attia
Ludwig Maximilians University, München, Germany	Martin Dichgans, Marco Düring, Andreas Gschwendtner, Christian Opherk
Lund University, Malmö University Hosp, Malmö, Sweden	Gustav Smith
Lund University, University Hosp, Lund, Sweden	Arne Lindgren, Bo Norrving, Björn Hansen
Massachusetts General Hospital, Deane Institute, Broad Institute, Boston MA, USA	Karen Furie, Jonathan Rosand, Natalia Rost, Alessandro Biffi, Lynelle Cortellini
Mayo Clinic, Florida, Jacksonville FL, USA	James Meschia
McMaster University, Hamilton, ON, Canada	Guillaume Pare
Medical University Graz, Graz, Austria	Reinhold Schmidt
Milan University, Milan Italy	Anna Bersano
Oxford University, Oxford, United Kingdom	Peter Rothwell
Sahlgrenska University Hospital, Goteborg, Sweden	Katarina Jood, Sandra Olsson
St. George's University, London, United Kingdom	Hugh Markus, Steve Bevan
University Hospitals Leuven, Belgium	Vincent Thijs
University of Aberdeen, Aberdeen, Scotland	Mary Macleod
University of Cambridge, Cambridge, UK	Danish Saleheen
University of Cincinnati, Cincinnati OH, USA	Daniel Woo
University of Edinburgh; Western General Hospital, Edinburgh, Scotland	Cathie Sudlow
University of Maryland School of Medicine, Baltimore MD, USA	Braxton Mitchell
University of Miami, Miami FL, USA	Tatjana Rundek
University of Utah, Salt Lake City UT, USA	Jenny Majersik
University of Virginia, Charlottesville VA, USA	Bradford Worrall
Vall d'Hebron Hospital, Barcelona, Spain	Joan Montaner, Israel Fernandez-Cadenas