



ISGC NEWSLETTER

ISSUE 3- DECEMBER 2009

Contents

Introduction	2
Founding Principles	2
ISGC Project List	
Ongoing Projects	3
Other ISGC Projects	6
ISGC Website Update	7
6th International Workshop in Cincinnati	8
7th International Workshop in Edinburgh	9

If you'd like to suggest a topic or article for a future newsletter, or if you'd like to give general feedback, please contact:

Lynelle Cortellini
(lcortellini@partners.org).

Introduction

This is the third issue of the bi-monthly newsletter for the International Stroke Genetics Consortium. The ISGC newsletter will serve to keep investigators updated on ongoing projects, new project proposals, meetings, and publications.

The newsletter will be sent to participants on the 1st of even months (or nearest workday) as an email attachment.

All Investigators are invited and encouraged to submit content for the newsletter. Please send content suggestions to Lynelle Cortellini (lcortellini@partners.org).

ISGC Founding Principles

Cerebrovascular disease is a complex disorder influenced by variation in many genetic and non-genetic exposures, each of which contributes only a small influence to disease risk. Therefore large (larger than any single center can assemble on its own) well-characterized samples will be necessary to discover these exposures.

Principles of Collaboration:

- 1) The ISGC is open to all who can contribute
- 2) All contributions will be fairly recognized in publications
- 3) We work together in a spirit of cooperation and open communication in order to promote the best science in the present and the best science in the future.

ISGC Project Updates

Ongoing Projects:

Wellcome Trust Case Control Consortium Ischemic Stroke GWAS

Contact: Hugh Markus

Date Proposed: July 2007

Aims: Determine whether there are genetic determinants of ischemic stroke that can be identified using GWAS and whether these determinants predispose individuals to specific subtypes of stroke.

Status: Genotyping of Phase I completed, analysis ongoing

NIH-funded ICH GWAS

Contact: Jonathan Rosand

Date Proposed: January 2008

Aims: This multi-center genome-wide association study (GWAS) is designed to identify genetic determinants of:

- 1) Risk of intracerebral hemorrhage (ICH) using a case-control design
- 2) Clinical course of ICH using a cohort design of individuals who have suffered an ICH.

Status: Genotyping in progress, meta-analysis with U Cincinnati group in progress, results to be presented at ISGC workshop in Cincinnati

A genome-wide association study of early onset ischemic stroke

Contact: Braxton Mitchell, Steven Kittner

Date Proposed: January 2008

Aims: To carry out a GWAS of early onset stroke

- 1) Conduct a staged GWAS in the U of Maryland sample
- 2) Replicate associations detected in Aim 1 in an independent set of young-onset stroke cases controls from collaborators in the ISGC.
- 3) Determine if SNPs robustly associated with early onset stroke in both the Maryland and IGSC cohorts are also associated with older onset stroke.

Status: Further developments include: (1) genotyping the 50K Illumina CVD chip in 950 cases and matched controls; (2) transfer of DNA to CIDR for genotyping the Illumina Omni1-Quad BeadChip for GWAs analysis; and (3) securing of resources to genotype an additional 2,500 young stroke cases from Pakistan (with Danish Saleheen) and Germany (with Arndt Rolfs) for a combined for meta-analysis of young onset stroke. Details to follow in Cincinnati.

ISGC Projects

Ongoing Projects (continued):

Replication of Chr. 9q21 region in stroke cases and matched controls in Chinese population

Contacts: Xingyu Wang, Lisheng Liu

Date Proposed: March 2008

Aims: To replicate the findings of the Chromosome 9p21 projects of the ISGC within a Chinese cohort.

Status: Manuscript being drafted, to be presented in Cincinnati

International Validation of a Computerized Algorithm for Etiologic Classification of Ischemic Stroke: The Causative Classification of Stroke System (CCS)

Contact: Hakan Ay, Jonathan Rosand

Date Proposed: March 2008

Aims: This is an ISGC-wide study to validate a computerized system for etiologic classification of ischemic stroke.

Status: Manuscript submitted

Relationship of genetic markers for common risk factors for stroke with ischemic cerebrovascular disease

Contact: Vincent Thijs

Date Proposed: June 2008

Aims: Determine whether SNPs associated with well known risk factors for ischemic stroke like diabetes, elevated LDL, myocardial infarction and atrial fibrillation are associated with ischemic cerebrovascular disease using a case control design.

Status: Manuscript being drafted

Looking for genetic risk factors of cervical artery dissections

Contact: Stéphanie Debette on behalf of Didier Leys

Date Proposed: February 2009

Aims: A replication study to test whether the polymorphisms associated with CAD in the GWAS within the CADISP-consortium are also associated with CAD in other independent populations, in order to exclude spurious associations.

Status: Genotyping in final phase, results expected soon. The replication study is in the final phase of recruitment

ISGC Projects

Ongoing Projects (continued):

The International Stroke Genetics Consortium Informatics Platform: A tool for Efficient Collaboration and Rapid Discovery

Contacts: Lynelle Cortellini, Steve Bevan, Jonathan Rosand

Date Proposed: February 2009

Aims: 1) Compile a publically-available web-based catalog of all clinical characteristics, radiographic studies, genetic data and available biological samples collected for subjects with ischemic stroke and controls.
2) Enrich characterization of stroke patients by classifying all subjects according to the biologically-based Causative Classification of Stroke System and creating a central repository of de-identified neuroimaging data on patients with stroke.

Status: Ethics Committee submission in progress.

National Institute of Neurological Disorders and Stroke Ischemic Stroke GWAS

Contacts: Steven Kittner, James Meschia

Date Proposed: March 2009

Aims: Funding of an ischemic stroke genetics consortium in order to perform a genome wide association study in ischemic stroke patients and matched controls.

Status: Grant under review

Chromosome 12 and risk of ischemic stroke: A replication study

Contacts: James Meschia, Andrew Singleton, Jonathan Rosand

Date Proposed: April 2009

Aims: Replication effort through the ISGC of the CHARGE discovery of two SNPs on chromosome 12 that were over-represented among cases with ischemic stroke, compared to controls.

Status: Manuscript under review

White Matter Hyperintensity GWAS

Contacts: Natalia Rost, Jonathan Rosand

Date Proposed: July 2009

Aims: Perform a meta-analysis of the white matter hyperintensity volumes in patients with acute ischemic stroke and available GWAS data in order to achieve the necessary power to discover genetic associations between WMH volume and risk of stroke.

Status: Genotyping in progress, new sites joining

ISGC Projects

Ongoing Projects (continued):

Are established candidate gene polymorphisms for blood pressure, coronary heart disease, atrial fibrillation, lipid metabolism and hemostatic and inflammatory pathways also related to ischemic stroke risk in populations from the Southwest of Sweden?

Contacts: Arne Lindgren, Christina Jern, Olle Melander

Date Proposed: July 2009

Aims: To examine if SNPs related to phenotypes are related to ischemic stroke risk in a homogenous population sample from the Southwest of Sweden.

Status: Recently completed genotyping of 3600 patients and 2500 controls regarding 66 candidate SNP:s from the above areas of interest. Plan to present results for chromosome 12 (rs12425791) at the ISGC meeting in Cincinnati in January 2010.

Other Projects Involving ISGC Members

Genetic and Environmental Risk Factors for Hemorrhagic Stroke

Contact: Daniel Woo

Australian Stroke Genetics Collaborative Group

Contact: Chris Levi, John Attia

NHLBI Initiative on White Matter Disease

Contact: Paul Nyquist

INTERSTROKE

Contact: Guillaume Pare

Mitochondrial Genetics and Risk of Stroke

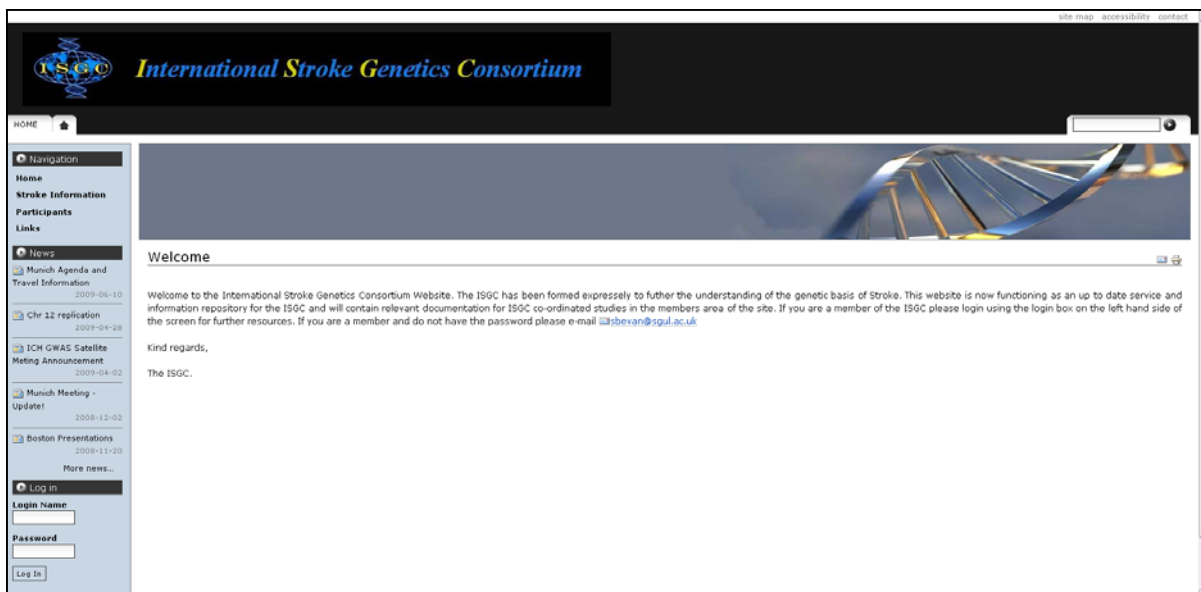
Contact: Jonathan Rosand

Website Update

Thanks to everyone who submitted a short bio and picture for the website! All bios received have been posted. If you would still like to submit a bio and picture, you can email them to either Lynelle or Steve.

If you have additional website content or layout suggestions, please email Lynelle Cortellini (lcortellini@partners.org) or Steve Bevan (sbevan@sgul.ac.uk) with your ideas.

Thank you!



6th International Workshop: Cincinnati OH, USA

The 6th International Workshop of the ISGC is scheduled for January 7-8, 2010 in Cincinnati OH, USA. Inaugurating a new tradition in which co-chairs from different continents will preside, the Cincinnati workshop will be organized by Daniel Woo and Stéphanie Debette. Below is some basic meeting information to help plan your trip.

Registration: Please be sure to register for the workshop if you have not done so already. You can contact Lynelle (lcortellini@partners.org) for the registration form.

Flight Info: Cincinnati/Northern Kentucky International Airport (www.cvgairport.com) is located in Covington, KY (Airport Code: CVG) and is a major hub for Delta Airlines (www.delta.com). Travel from the airport to the hotel by cab is approximately \$30 US.

Hotel Info: Hilton Cincinnati Netherland Plaza will be the site of the conference and a limited number of rooms under a special rate have been reserved there under University Neurology, Inc. Please use this link to book your room online: <http://www.hilton.com/en/hi/groups/personalized/CVGNPHF-ISG-20100106/index.jhtml>

Room Rates: Guestrooms will be available at the rates below for the nights of January 6th, 7th and 8th. Any other guestrooms requested at the hotel will be on a rate-available basis.

Room	Single Rate	Double Rate
Standard	119	119
Jr. Suites	149	149

7th International Workshop: Edinburgh, UK

By popular vote, Edinburgh, UK has been chosen as the site for our next European workshop. This meeting will be hosted by Cathie Sudlow (cathie.sudlow@ed.ac.uk) and Brad Worrall (bbw9r@virginia.edu). The meeting will take place on June 17 and 18, 2010. Additional details will be sent out as they are received.

