IGES 2020 ANNUAL MEETING ONLINE SPONSORS

STAGE
Strategic Training for Advanced Genetic Epidemiology

LUDMER CENTER
NEUROINFORMATIQUE & SANTÉ MENTALE | NEUROINFORMATICS & MENTAL HEALTH

WILEY

Invited plenary presentations on July 2nd

Dates/Times North America (EDT)	Dates/Times United Kingdom (BST)	Dates/Times South Korea (KST)	
July 2nd	**July 2nd**	**July 2nd**	
8:00am – 10:30am	**13h00-15h30**	**21h00-23h30**	**Invited videoconference presentations** **Chairs: Corinne Engelman and Celia Greenwood**
8:00 – 8:15 am	13h00-13h15	21h00-21h15	Introduction
8:15 – 8:45am	13h15-13h45	21h15-21h45	**Presidential Address: Professor Peter Kraft** Harvard T.H. Chan School of Public Health
8:45 – 9:15am	13h45-14h15	21h45-22h15	**Invited: Dr. Hongbing Shen** Nanjing Medical University *Polygenic Risk Scores for Lung Cancer in Chinese and Caucasian Populations*
9:15 – 9:45am	14h15-14h45	22h15-22h45	**Invited: Professor Zhengming Chen** University of Oxford *Realizing the Power of Big Biobanks in Diverse Populations for Stroke Medicine*
9:45 – 10:00am	14h45-15h00	22h45-23h00	**Neel finalist: Divya Sharma** *Combining Human and Artificial Intelligence: Ensemble of Convolutional Neural Networks for Disease Prediction from Microbiome Data*
10:00 – 10:15am	15h00-15h15	23h00-23h15	**Neel finalist: Stefan Konigorski** *Fast Kernel-based Rare-Variant Association Tests Integrating Variant Annotations from Deep Learning*
10:15 – 10:30am	15h15-15h30	23h15-23h30	**Neel finalist: Myriam Brossard** *Characterization of Direct and/or Indirect Genetic Associations for Multiple Traits in Longitudinal Studies of Disease Progression*

For scientific and social events, Zoom links will be provided to registered participants.
For Mentoring events, separate registration is required.

Recordings will be included at the Ludmer Centre website ludmercentre.ca/iges-conference after July 1st.
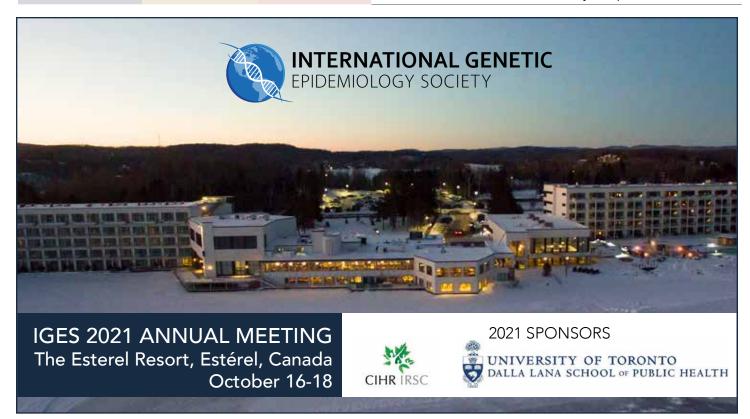
Poster and mentoring sessions on July 2nd (July 3rd)

Dates/Times North America (EDT)	Dates/Times United Kingdom (BST)	Dates/Times South Korea (KST)	
July 2nd	**July 2nd/3rd**	**July 3rd**	
11:00-12:00pm	16h00-17h00	00h00-01h00	Mentoring session for young investigators and trainees Topic 1: Teaching (first ½ hr) and Research (second ½ hour)
11:30am-12:30pm	16h30-17h30	00h30-01h30	Mentoring session for young investigators and trainees Topic 2: Grant writing (first ½ hour) and Career (second ½ hr)
12:30-1:30pm	17h30-18h30	01h30-02h30	**Social Hour 1** - Pick one of the following topics, or jump between sessions. - Early career investigators and friends - Aficionados of Italian espresso - Aficionados of green tea - Anyone who attended IGES before the year 2000 & friends
2:00-3:00pm	19h00-20h00	03h00-04h00	**Live zoom lightning talks for top ranked posters 1** **Chairs: France Gagnon and Wei Xu** Jocelyn Quistrebert, Imagine Institute, Paris Descartes University [Judged] *Genome-wide Association Study of Resistance to Tuberculosis Infection in Exposed Individuals from Various Endemic Settings* Yafang Li, Baylor College of Medicine *Integrated Multi-Ethnicity GWAS and Functional Analysis Identified Causal Variants in Lung Cancer* Wes Spiller, University of Bristol [Judged] *Identifying, Testing, and Correcting for Bias in Mendelian Randomization Analyses Using Gene-by-Environment Interactions* Quan Long, University of Calgary *Statistical Model Discovering 3D-Genetic Basis Underlying Complex Diseases: An Application to Autism Spectrum Disorder Data* Jonathan Sulc, University of Lausanne [Judged] *Heterogeneity in Obesity and Its Consequences on Health* Peng Wei, University of Texas MD Anderson Center *Incorporating Multiple Sets of eQTL Weights into Gene-by-Environment Interaction Analysis Identifies Novel Susceptibility Loci for Pancreatic Cancer* Diana Kormilez, University of Lübeck [Judged] *Confidence Intervals and Their Coverage Probabilities for Predictions by Random Forests* Yanyu Liang, University of Chicago *Improving Trans-Ethnic Portability of Polygenic Risk Scores with Predicted Expression Traits*
8:00-9:00pm	01h00-02h00 July 3rd	9h00-10h00	**Live zoom lightning talks for top ranked posters 2** **Chairs: Saonli Basu and Zuoheng Wang** Douglas Shaw, Vanderbilt University [Judged] *Applying a Phenome Risk Score-Based Model to Identify Undiagnosed Developmental Stuttering Cases in a Biobank for Genome Wide Association Analysis* Xuexia Wang, University of North Texas *A Novel powerful eQTL Weighted Gene Based Association Test Using GWAS Summary Data* Xinyuan Zhang, University of Pennsylvania [Judged] *Large-scale Genomic Analyses Reveal Insights into Pleiotropy Across Circulatory System Diseases and Central Nervous System Disorders* Subrata Paul, University of Colorado [Judged] *MixFAR: a Multi-phenotype Association Model that Detects Structure in Secondary Phenotype Space and Increases Power of Association Tests* Kang Jin Kim, Seoul National University [Judged] *The Human Urine Microbiome in Type-2 diabetes Mellitus from KARE Cohort Study* Yunlong Liu, Indiana University School of Medicine *High-Throughput Reporter Assay Reveals Functional Impacts of 3'-UTR SNPS Associated with Neurological and Psychiatric Disorders* Dongjing Liu, University of Pittsburg [Judged] *Transcriptome-Wide Association Study of Human Facial Shape Identifies Potential Mediating Genes* Shelley Bull, Lunenfeld Research Institute *Extensions to Rare Variant Association Tests under an Affected Sibling Pair Design*
9:00-10:00pm	02h00-03h00 July 3rd	10h00-11h00	**Social Hour 2** - Pick one of the following topics, or jump between sessions. - Night owls – people who do their best work at night - Early birds – people who like to work early morning - Those who would have gone out to hear jazz together in person - Photography lovers

Invited plenary presentations on July 3rd

Dates/Times North America (EDT)	Dates/Times United Kingdom (BST)	Dates/Times South Korea (KST)	
July 3rd	July 3rd	July 3rd	
8:00am – 10:30am	**13h00-15h30**	**21h00-23h30**	**Invited videoconference presentations** **Chairs: Heike Bickeboller and Sanjay Shete**
8:00 – 8:10 am	13h00-13h10	21h00-21h10	Introduction
8:10 – 8:40am	13h10-13h40	21h10-21h40	**Invited : Professor Xihong Lin** Harvard TH Chan School of Public Health *Analysis of Large-Scale Biobanks and Whole Genome Sequencing Studies: Challenges and Opportunities*
8:40-8:55am	13h40-13h55	21h40-21h55	**Moderated discussion of Dr. Lin's presentation by Dr. Philip Awadalla** Ontario Institute for Cancer Research
8:55 – 9:10am	13h55-14h10	21h55-22h10	**Williams finalist: Dongyang Yang** *Clustering of Human Microbiome Sequencing Data: A Distance-based Unsupervised Learning Model*
9:10 – 9:25am	14h10-14h25	22h10-22h25	**Williams finalist: Grace Png** *Exploring the Genetic Architecture of the Human Neurological Proteome using Whole Genome Sequencing*
9:25 – 9:40am	14h25-14h40	22h25-22h40	**Williams finalist: Roxanna Korologou-Linden** *Investigating causal effects of genetic variants for Alzheimer's disease in the UK BIOBANK*
9:40 – 10:15am	14h40-15h15	22h40-23h15	**Winner of best paper in Genetic Epidemiology 2019: Lai Jiang** *Constrained Instruments and Their Application to Mendelian Randomization with Pleiotropy* Genet Epidemiol. 2019 Jun;43(4):373-401 https://onlinelibrary.wiley.com/doi/full/10.1002/gepi.22184 Discussion led by Frank Dudbridge, University of Leicester and André Scherag, Institute of Medical Statistics, Computer and Data Sciences, Jena University Hospital

IGES 2021 ANNUAL MEETING
The Esterel Resort, Estérel, Canada
October 16-18

2021 SPONSORS

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Poster and mentoring sessions on July 3rd (July 4th)

Dates/Times North America (EDT)	Dates/Times United Kingdom (BST)	Dates/Times South Korea (KST)	
July 2nd	July 3rd	July 4th	
11:00-12:00pm	16h00-17h00	00h00-01h00	Mentoring session for young investigators and trainees Topic 1: Grant writing (first ½ hr) and Career (second ½ hr)
11:30am-12:30pm	16h30-17h30	00h30-01h30	Mentoring session for young investigators and trainees Topic 2: Teaching (first ½ hr) and Research (second ½ hr)
12:30-1:30pm	17h30-18h30	01h30-02h30	**Social Hour 3 -** Pick one of the following topics, or jump between sessions - Advocates for reproducible research - Sports lovers (either to watch or play) - In memory of joint GAW/IGES conferences - Those planning to take a late night hot tub next year at IGES 2021 in Estérel
2:00-3:00pm	19h00-20h00	03h00-04h00	**Live zoom lightning talks for top ranked posters 3** **Chairs: Iris Heid and Janet Sinsheimer** Mathias Gorski, University of Regensburg [Judged] *Trans-Ethnic Genome-Wide Association Meta-Analysis of >195,000 Individuals Reveal Novel Loci for Kidney Function Decline* Katharina Stahl, University of Göttingen *Assessment of Imputation Quality - A Comparison of Phasing and Imputation Algorithms in Real Data* Tianyuan Lu, McGill University [Judged] *Patients With a Low PRS Should be Prioritized to Rare Variant Screening* Michael Epstein, Emory University *Improved Mediation Analyses in Case-Control Association Studies* Rima Mustafa, Imperial College London [Judged] *Metabolomic Signatures of microRNAs in Cardiovascular Traits: A Mendelian Randomization Analysis* Michael Hauser, Duke University *Genetics of Primary Open Angle Glaucoma Differ in Individuals of Caucasians and African Ancestry* Lucy Goudswaard, University of Bristol [Judged] *Effects of Body Mass Index on the Human Proteome: Mendelian Randomization Study Using Individual-Level Data* Jeanine Houwing-Duistermaat, University of Leeds *Statistical Integration of Methylation, Transcriptome and Proteome data in Cell Lines*
8:00-9:00pm	01h00-02h00 (July 4th)	9h00-10h00	**Live zoom lightning talks for top ranked posters 4** **Chairs: Maggie Wang and Hsin-Chou Yang** Soyoung Jeon, University of Southern California [Judged] *Multi-ethnic Genome-wide Association Study of Acute Lymphoblastic Leukemia* Pimphen Charoen, Mahidol University *GWAS Meta-Analysis Study for Circulating Metabolites Identifies New Loci, and Reveals Their Implications for Human Health, Drug Development, and the Causal Role on Cardio-Metabolic Traits* Xiaoxuan Xia, The Chinese University of Hong Kong [Judged] *Prism Vote: A Stratified Statistical Framework to Perform Prediction for Complex Diseases* Ian Arriaga MacKenzie, University of Colorado-Denver *Estimation of non-Reference Ancestry Proportions in Genotype Frequency Data* Lai Jiang, McGill University [Judged] *A Bayesian Hierarchical Model for Estimating Covariate Effects on 5-Methylcytosine and 5-Hydroxymethylcytosine Levels in Oxy-Bisulfite Treated DNA* Eun Kyung Choe, University of Pennsylvania *Phenome-wide Association Study of a Comprehensive Health Check-up Database in 10,349 Korean Population: Clinical Application & Trans-Ethnic Comparison* Genevieve Wojcik, Johns Hopkins Bloomberg School of Public Health *Establishing Polygenic Risk Score Reporting Standards and a Polygenic Score Catalog to Improve Validation, Interpretation and Reproducibility* Hongyan Xu, University of Augusta *Incorporation of Rare Genetic Variants Improved the Prediction Performance of Polygenic Risk Score*

Special session on Genetic Epidemiology of COVID-19 and SARS-COV-2, July 4th

Dates/Times North America (EDT)	Dates/Times United Kingdom (BST)	Dates/Times South Korea (KST)	
July 4th	July 4th	July 4th	
9:00am-11:00am	**14h00-16h00**	**22h00-24h00**	**Special Session on Genetic Epidemiology of COVID-19 and SARS-COV-2** **Chairs: Stella Aslibekyan and Saurabh Ghosh**
9:00am-9:30am	14h00-14h30	22h00-22h30	**Invited: Dr. Priya Duggal** Johns Hopkins University *Host Genetics and COVID-19: What do we know about infectious diseases?*
9:30-9:45am	14h30-14h45	22h30-22h45	Mulong Du Harvard T.H. Chan School of Public Health *A Multiple Omics Analysis of COVID-19-Associated ARDS Identified Pathways Associated with Risk and Potential Intervention*
9:45-10:00am	14h45-15h00	22h45-23h00	Matthew Patrick University of Michigan, Ann Arbor *Psoriasis and Covid-19 Shared Genetic Signal in LCE Gene cluster*
10:00-10:15am	15h00-15h15	23h00-23h15	Georg Hahn Harvard T.H. Chan School of Public Health *Unsupervised Cluster Analysis of SARS-CoV-2 Genomes Identifies Distinct Genetic Subgroups of the SARS-CoV-2 Virus*
10:15-10:30am	15h15-15h30	23h15-23h30	Maik Pietzner MRC Epidemiology Group, University of Cambridge *Genetic Architecture of Host Proteins Interacting with SARS-CoV-2*
10:30-11:00am	15h30-16h00	23h30-24h00	**Invited: Dr. Caroline Colijn** Simon Fraser University *Serial Intervals and Virus Genomes: Estimating SARS-CoV-2 Epidemic Parameters with Genomic Data*
11:00-11:15am	16h00-16h15	24h00-24h15	**Announcement of Neel Award and Williams Award winners, sponsored by Wiley, and Poster competition, sponsored by CANSSI STAGE**

INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY

INVITED SPEAKERS

Peter Kraft, Ph.D.
IGES President
Peter Kraft is Professor of Epidemiology and Biostatistics and Director of the Program in Genetic Epidemiology and Statistical Genetics at the Harvard T.H. Chan School of Public Health. His research concentrates on the design and analysis of genetic association studies, with particular emphasis on the genetic epidemiology of cancer. His methodological work has focused on efficient and interpretable "gene x environment interaction" analyses; building and evaluating risk prediction models incorporating high dimensional genetic data; and integrative analyses combining genetic and environmental risk factors with intermediate biomarkers (gene expression, metabolomics).
Schedule: July 2, 8:15am-8:45am, EDT

Hongbing Shen, M.D., Ph.D.
Nanjing Medical University
Professor Shen is the Academician of the Chinese Academy of Engineering and President of Nanjing Medical University. He also served as Director of the Cancer Center and Professor of Epidemiology for Nanjing Medical University. Prof. Shen's research is primarily focused on genetic and environmental influences on cancer development and prognosis. Prof. Shen has led a large study exploring the genetic basis of lung cancer in the Chinese population which identified novel susceptibility genes. In addition, he developed a polygenic risk score (PRS) for lung cancer which has been successfully evaluated in a large-scale prospective cohort study in Chinese population.
Schedule: July 2, 8:45am-9:15am, EDT

INVITED SPEAKERS

Zhengming Chen, Ph.D.
University of Oxford
Professor Zhengming Chen is Professor of Epidemiology at the University of Oxford. His primary research domains lie in the environmental and genetic causes of chronic disease, evidence-based medicine and evaluation of widely practicable treatments for chronic diseases (such as IHD, stroke and cancer) as well as efficient strategies for chronic disease control in developing countries. Over the past 20 years, he has led several large randomised trials and cohort studies involving >750,000 individuals. He has been the lead principal investigator in the UK for the China Kadoorie Biobank (CKB) prospective study of 0.5 million adults, leading a research team in Oxford for the study design, development, data management and analysis for the CKB.
Schedule: July 2, 9:15am – 9:45am, EDT

Xihong Lin, Ph.D.
Harvard T.H. Chan School of Public Health
Xihong Lin is Professor of Biostatistics, Professor of Statistics, and Coordinating Director of the HCSPH Program in Quantitative Genomics at Harvard University. Dr. Lin's research interests lie in development and application of scalable statistical and computational methods for analysis of massive data from genome, exposome and phenome, such as Whole Genome Sequencing studies, integrative analysis of different types of data, and biobanks. She received the 2006 Presidents' Award and the 2017 FN David Award from the Committee of Presidents of Statistical Societies (COPSS), and is an elected member of the US National Academy of Medicine. She is the PI of the Outstanding Investigator Award (R35) from the National Cancer Institute, and the contact PI of the Harvard Analysis Center of the Genome Sequencing Program of the National Human Genome Research Institute.
Schedule: July 3, 8:10am-8:40am, EDT

Priya Duggal, Ph.D.
Johns Hopkins Bloomberg School of Public Health
Priya Duggal is an Associate Professor of Epidemiology and International Health, and the Director of the Genetic Epidemiology program at Johns Hopkins Bloomberg School of Public Health. She also co-directs the Burroughs-Wellcome funded training program, Maryland: Genetics, Epidemiology and Medicine that cross trains students in genetic medicine and epidemiology. Her research is on the host genetic susceptibility to infectious disease with a focus on the role of host genetics in susceptibility and progression of disease and immune response. She also leads efforts to understand Acute Flaccid Myelitis, and she is directing the genetics arm of the Environmental Influences on Child Health Outcomes (ECHO) study of 50,000 children and mothers. Dr. Duggal has served on the education (2007-2010), local planning (2014-2015) and communications committees (2015-present) for IGES.

Caroline Colijn, Ph.D.
Simon Fraser University
Dr. Colijn is a Professor and Canada 150 Research Chair at The University of Waterloo. Her work is at the interface of mathematics and the epidemiology and evolution of pathogens. She holds a Canada 150 Research Chair in Mathematics for Evolution, Infection and Public Health. This group develops mathematical tools connecting sequence data to the ecology and evolution of infections. Dr. Colijn holds a long-standing interest on the dynamics of diverse interacting pathogens. For example, how does the interplay between co-infection, competition and selection drive the development of antimicrobial resistance? To answer these questions, her group is building new approaches to analyzing and comparing phylogenetic trees derived from sequence data, studying tree space and branching processes, and developing ecological and epidemiological models with diversity in mind.

Local Organizing Committee

Celia Greenwood, PhD (Chair)
IGES Past President

Yun Joo Yoo, PhD
Seoul National University
South Korea

France Gagnon, PhD
University of Toronto, Canada

Sungho Won, PhD
Seoul National University
South Korea

Maggie Wang, PhD
Chinese University of Hong Kong
Hong Kong

Tae-Hwi (Linus) Schwantes-An, PhD
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IGES Past President