INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY

Newsletter – *November 2021 Pre-Election Edition*

Contents

Letter from the President
Heike Bickeböller

Dear IGES Community,

We are almost at the end of 2021, the second year in the pandemic and the second year with a virtual meeting. While both virtual meetings were well attended and included inspiring talks, discussions, posters and social events, we are all looking forward to meeting again in person next September in Paris, France. During my year of presidency we focussed on diversity. The ELSI committee published statements on diversity and is currently working on a manuscript, and the scientific programme committee dedicated a whole session to this highly important and timely topic. The board will continue in its efforts to foster diversity in research, teaching and in its membership including its committees.

I would like to take the opportunity to thank the scientific programme committee (chair: Corinne Engelman) for their selection of excellent keynote speakers and the selection of those contributions presented at the meeting. This includes judging for the **Neel and William Award winners Katherine Knudsen and Wes Spiller**. The Young Investigators Comittee judged the **poster awards**, 1st place given to **Dongjing Liu** and 2nd places given to **Kelsey Grinde, Kenneth Westerman and Lucy Goodswaard**. Another big thank you goes to the education committee (chairs: Sarah Buxbaum and Wei Xu) and to all presenters of the **Polygenic Risk Score Best Practices Workshop**, coordinated by France Gagnon and Lei Sun. For the first 75 registrants hands-on excercises were offered, but the registration was kept open for additional participants to view the lecture part. The **award for the best paper in our Journal Genetic Epidemiology 2020 was given to Danyu Lin**.

Andrew Morris was given the IGES Leadership Award in 2021. We are proud to have such a person of excellence in research and teaching, that gave so much good service to the society. Thank you Andrew!!!

I would also like to thank your past president Pete Kraft, who will leave the IGES board at the end of the year. I hope he will be the last president to organize a meeting first in-person and then online. There are many things to thank Pete for, but the one thing that I would like to point out is the initiation of the well-received Journal Club.

All the many out-going members that dedicated their work to one of our committees deserve a very warm thank you. Please take notice of the wonderful people (listed later in this newsletter) standing for further service to the society as president, secretary and board members, and participate in the upcoming election. Until Nov. 10th we still take applications from members who would like to support the society with work in our other committees. Please use the email contact iges@geneticepi.org or else contact the secretary, Heather Cordell (heather.cordell@newcastle.ac.uk) directly, and include a CV.

Also I would like to remind you to renew your membership in IGES for next year in good time.

Finally, we are intensively starting planning for IGES 2022 in Paris! The local organizing team is lead by Emmanuelle Génin and Anne-Louise Leutenegger, both long-standing IGES members. Please note that ideas for keynote speakers and educational sessions for IGES 2022 can be sent to the scientific programme committee, the educational committee, hbickeb@gwdg.de or iges@geneticepi.org at any time.

Please plan to come to IGES 2022!

Heike Bickeböller

2021 IGES President

Treasurer's Corner
Julia Bailey

Treasurer Report

The International Genetic Epidemiology Society is registered in the USA as a 501(c) non-profit organization. IGES was registered on Sept 5, 1991 in the state of Louisianna, where Dr. Robert Elston was residing. The acronym was meant to be pronounced 'I guess'.


UNITED STATES OF AMERICA

State of Louisiana

DUPLICATE

Fox McKeithen

SECRETARY OF STATE

As Secretary of State, of the State of Louisiana, I do hereby Certify that a copy of the Articles of Incorporation of

INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY, INC.

Domiciled at Metairie, Louisiana, Parish of Jefferson,

A corporation organized under the provisions of R.S. 1950, Title 12, Chapter 2, as amended,

By Act before a Notary Public in and for the Parish of Jefferson, State of Louisiana, on September 5, 1991, the date when corporate existence began,

Was filed and recorded in this Office on September 9, 1991, in the Record of Non-Profit Corporations Book 343,

And all fees having been paid as required by law, the corporation is authorized to transact business in this State, subject to the restrictions imposed by law, including the provisions of R. S. 1950, Title 12, Chapter 2, as amended.

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on, September 9, 1991

ABA 34388911N

Secretary of State

STATE OF LOUISIANA UNION JUSTICE CONFIDENCE SECRETARY OF STATE

CERTIFICATE SS 102 PRINTED SEAL (08/03)

One of the requirements for a US 501(c) is that the treasurer of the society has to be located in the USA. The treasurer has an assistant who does most of the work. We have been fortunate to have DeLaine Anderson fill this position for the last decade or so.

Our conferences and membership are organized by Business Endeavors, run by Vanessa Olmo.

This is all the paid administrative staff our society has. Most of the other expenses we occur relate to the website or our yearly conference. Our income comes from membership, conference attendance, and donations.

The treasurer gives a full report at our yearly business meeting. We are currently in good financial standing.

Julia Bailey
Treasurer

Editor's Corner, Genetic Epidemiology
Sanjay Shete

Dear IGES members, as an official journal for our society, Genetic Epidemiology invites you to submit your work in the fields of statistical, epidemiological and population genetics. Genetic Epidemiology is interested in both the methodological and applied papers. Examples include applied genetic epidemiology papers (e.g. meta-analyses of GWAS, Secondary analyses of GWAS data), gene and environment interactions, risk prediction models, DNA methylation and RNA seq data analysis. Other novel work is welcome!

- The latest issue, October 2021 can be found here:

https://onlinelibrary.wiley.com/toc/10982272/2021/45/7

Editor's pick paper:

- **A**uthors: Helian Feng, Nicholas Mancuso, Bogdan Pasaniuc, Peter Kraft
  Title: Multitrait transcriptome-wide association study (TWAS) tests
  Link: https://onlinelibrary.wiley.com/doi/10.1002/gepi.22391

- Top-cited Genetic Epidemiology articles can be found here:
https://onlinelibrary.wiley.com/doi/toc/10.1002/(ISSN)1098-2272.GEPI-top-cited

Benefits of Publishing in Genetic Epidemiology: There is no publishing cost for authors (e.g. page charges, black-white figures). In addition, every year, journal selects few papers for "open access" (unrestricted online access) publishing at no cost to the authors.

Please register on Wiley online library to **receive email alerts for new content** and saved searches. The website for registration is http://onlinelibrary.wiley.com/user-registration

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We offer Kudos (https://www.growkudos.com/), a social media service that provides authors with a free set of tools to explain and share their published work for greater usage and impact. Authors also receive access to a publication dashboard where they can view downloads, citations, and altmetrics for their articles.

This is your journal: make it reflect your work by submitting your papers to Genetic Epidemiology!

Thanks, and I look forward to your active participation in the journal.

Sanjay Shete
Editor-in-Chief
sshete@mdanderson.org

Coursera Genetic Epidemiology Foundations Course

The IGES Educational Committee has conceived and designed an online course called Genetic Epidemiology Foundations that is available at this URL:

coursera.org/learn/genetic-epidemiology

The course can be accessed for free by you and your trainees.

This course consists of 6 modules designed to provide the foundation necessary to conduct statistical analysis of genetic data and was made possible through the support of the University of Colorado and Vanderbilt University.

Stephanie Santorico, Ph.D., who along with Todd Edwards is our committee's past Co-chair, makes the introduction to the modules:

1. Nancy Cox, Ph.D.: What is Genetic Epidemiology? Historical Perspective and Introduction
2. Bruce Weir, Ph.D.: Introduction to Population Genetics: Models and Assumptions
3. Todd Edwards, Ph.D.: Population Structure and Genetic Association Studies
4. Goncalo Abecasis, D.Phil.: Basic Quality Control in Genetic Data: Data Structure
5. Celia Greenwood, Ph.D.: Population-Based Association Studies
6. Joan Bailey-Wilson, Ph.D.: Family-Based Designs

Contact us if you have any questions:

Sarah Buxbaum, Ph.D. sarah.buxbaum@famu.edu
Wei Xu, Ph.D. Wei.Xu@uhnresearch.ca

IGES 2022 Membership Drive

Dear IGES members,

Don't forget to renew your membership for 2022! Registration/renewal is now open. The early-bird membership fee is available until January 31, 2022. Use the discount code **2022earlybird.**

Please observe the fact that membership registration and annual meeting registration have been separate since 2014. Therefore you are NOT automatically registered as an IGES member just with meeting attendance. A separate registration for IGES Society membership is necessary:

https://www.geneticepi.org

Rates for 2022 IGES membership:

- Regular member **US$130**, if paid by January 31, 2022 (early-bird)
- Regular member **US$155** if paid on or after February 1, 2022
- Student and Post-Doctoral* member with online access to Journal **US$68**, rate continues all year but please aim to pay by January 31, 2022
- Student and Post-Doctoral* member **without** online access to Journal **US$25**, rate continues all year but please aim to pay by January 31, 2022
- Low- or lower-middle- income country* member with online access to Journal **US$68**; without online access to Journal **US$25.**

* For eligibility see IGES website

Benefits of IGES membership:

- Receive complimentary on-line access to **Genetic Epidemiology** (the official IGES journal)
- Post announcements and job adverts on the IGES website at ***no cost***
- Attend annual IGES scientific meetings at ***reduced cost***
- Interact with **scientific peers** worldwide
- Learn about the **latest methodological developments**, **software**, and **research findings** in genetic epidemiology
- Help the society **promote** the field of **genetic epidemiology** internationally

- Continuous regular membership of IGES for 5 years or more makes you eligible for the title of "**Fellow Member of IGES**". See https://www.geneticepi.org/iges-fellow-members

Your IGES dues help to support…

- **Travel expenses** to the annual IGES meeting for worthy students in financial need
- **Continuing education** and outreach to the scientific community about the discipline, analytical methods, and software used in genetic epidemiology through workshops and classes
- Subsidies for **student subscriptions** to the journal *Genetic Epidemiology*

IGES 2022 Elections
List of candidates - Please vote!

All current IGES members are eligible to vote in the upcoming election of members to the Board of Directors. We hope to open the ballot later in November. You will receive your ballot notification electronically and separately from this newsletter. This newsletter contains the biosketches of all candidates.

Candidate for the position of President-Elect (to serve as President in 2023):

- **John Witte**

Candidate for the position of Secretary to start 1st July 2022:

- **Andrew Paterson**

Candidates to serve as members on the Board of Directors (you will be requested to select only 2 candidates):

- Elizabeth Blue

- Saurabh Ghosh

- Anne-Louise Leutenegger

- Stephanie Santorico

[The ballot paper for these elections will be sent out by SurveyMonkey. Note that all members may opt-out of emails from IGES sent via sources such as MemberClicks, Cvent and SurveyMonkey. However, please note that by opting out, you will no longer receive ANY mail at all from IGES, including important election announcements and ballot links, as well as the newsletters and our annual meeting announcements].

2022 IGES Elections
Candidate for IGES President – John Witte

Dr. Witte is an internationally recognized expert in genetic epidemiology. His scholarly contributions include deciphering the genetic and environmental basis of prostate cancer and developing widely used methods for the genetic epidemiologic study of disease. His prostate cancer work has used comprehensive genome-wide studies of germline genetics, transcriptomics, and somatic genomics to successfully detect novel variants underlying the risk and aggressiveness of this common disease. A key aspect of this work has been distinguishing genetic factors that may drive increased prostate cancer risk and mortality among African American men. Providing an avenue to determine which men are more likely to be diagnosed with clinically relevant prostate cancer and require additional screening or specific treatment can help reduce disparities in disease prevalence and outcomes across populations. Dr. Witte has also developed novel hierarchical and polygenic risk score modeling for undertaking genetic epidemiology studies. These advances significantly improve our ability to detect disease-causing genes and to translate genetic epidemiologic findings into medical practice. Dr. Witte has received the Leadership Award from the International Genetic Epidemiology Society (highest award), and the Stephen B. Hulley Award for Excellence in Teaching. His extensive teaching portfolio includes a series of courses in genetic and molecular epidemiology. He has mentored over 50 graduate students and postdoctoral fellows, serves on the executive committees of multiple graduate programs, and has directed a National Institutes of Health funded post-doctoral training program in genetic epidemiology for over 20 years. Recently appointed to the National Cancer Institute Board of Scientific Counselors, Dr. Witte has been continuously supported by the National Institutes of Health.

Five selected publications:

1. Inclusion of variants discovered from diverse populations improves polygenic risk score transferability. Cavazos TB, **Witte JS**. HGG Adv. 2021; 2(1):100017. doi: 10.1016/j.xhgg.2020.100017.

2. Pan-cancer analysis demonstrates that integrating polygenic risk scores with modifiable risk factors improves risk prediction. Kachuri L, Graff RE, Smith-Byrne K, Meyers TJ, Rashkin SR, Ziv E, **Witte JS**, Johansson M. Nat Commun. 2020; 11(1):6084. doi: 10.1038/s41467-020-19600-4.

3. Pan-cancer study detects genetic risk variants and shared genetic basis in two large cohorts. Rashkin SR, Graff RE, Kachuri L, Thai KK, Alexeeff SE, Blatchins MA, Cavazos TB, Corley DA, Emami NC, Hoffman JD, Jorgenson E, Kushi LH, Meyers TJ, Van Den Eeden SK, Ziv E, Habel LA, Hoffmann TJ, Sakoda LC, **Witte JS**. Nat Commun. 2020; 11(1):4423. doi: 10.1038/s41467-020-18246-6.

4. Association of imputed prostate cancer transcriptome with disease risk reveals novel mechanisms. Emami NC, Kachuri L, Meyers TJ, Das R, Hoffman JD, Hoffmann TJ, Hu D, Shan J, Feng FY, Ziv E, Van Den Eeden SK, **Witte JS**. Nat Commun. 2019; 10(1):3107. doi: 10.1038/s41467-019-10808-7.

5. An efficient Bayesian meta-analysis approach for studying cross-phenotype genetic associations. Majumdar A, Haldar T, Bhattacharya S, **Witte JS**. PLoS Genet. 2018; 14(2):e1007139. doi: 10.1371/journal.pgen.1007139.

Keywords: statistical genetics, genetic epidemiology, prostate cancer, polygenic risk scores, health disparities.

2022 IGES Elections
Candidate for IGES Secretary – Andrew Paterson

Andrew is a Senior Scientist in the Program in Genetics and Genome Biology at The Hospital for Sick Children, Toronto, Ontario, Canada; co-director of the Statistical Analysis Facility of The Centre for Applied Genomics; Professor of Epidemiology and Biostatistics at the Dalla Lana School of Public Health, University of Toronto.

I've been an IGES member since 1998 and have attended the majority of the IGES annual meetings since then. From 2009-2016 I served consecutively on the IGES Publications Committee, then the Scientific Program Committee, and then the Board of Directors. I review grants for the Canadian Institute for Health Research (CIHR) as well as being an ad-hoc reviewer for NIH.

The reasons for variation in phenotypes between humans have always fascinated me. I was fortunate to train during the molecular revolution in medicine, allowing for the discovery of genetic variants that are associated with thousands of human diseases and traits. My research covers rare Mendelian diseases, including their phenotypic heterogeneity, as well as the genetic basis of complex traits such as long-term complications of diabetes and their risk factors, and host genetic associations with the gut microbiome. I have been fortunate to collaborate with a large number of researchers to perform joint/meta-analysis of large studies, including long-term follow-up of clinical trial data.

Five selected publications:

1. Bebu I, Keshavarzi S, Gao X, Braffett BH, Canty AJ, Herman WH, Orchard T, Dagogo-Jack S, Nathan DM, Lachin JM, **Paterson AD**, on behalf of the DCCT/EDIC Research Group (2021) Genetic Risk Factors for CVD in Type 1 Diabetes: the DCCT/EDIC Study. Diabetes Care Apr 21:dc202388. doi: 10.2337/dc20-2388. PMID: 33883194

2. Priyanka Nandakumar, Chao Tian, Jared O'Connell, 23andMe Research Team, David Hinds, **Andrew D. Paterson**, Neal Sondheimer (2021) Nuclear Genome-wide Associations with Mitochondrial Heteroplasmy. Science Advances.**7**(12) eabe7520. doi: 10.1126/sciadv.abe7520. PMID: 33731350

3. Jin-Fang Chai, Shih-Ling Kao, Chaolong Wang, Victor Jun-Yu Lim, Ing Wei Khor, Jinzhuang Dou, Anna I. Podgornaia, Sonia Chothani, Ching-Yu Cheng, Charumathi Sabanayagam, Tien-Yin Wong, Rob M. van Dam, Jianjun Liu, Dermot F. Reilly, **Andrew D. Paterson**, Xueling Sim (2020) Genome-wide association for HbA1c in Malay identified deletion on SLC4A1 that influences HbA1c independent of glycemia. JCEM **105**(12) Sep 16;dgaa658. doi: 10.1210/clinem/dgaa658. PMID: **32936915**

4. Apostolos Dimitromanolakis, **Andrew D. Paterson**, Lei Sun (2019) Fast and accurate shared segment detection and relatedness estimation in un-phased genetic data via TRUFFLE. Am J Hum Genet **105**(1):78-88. https://doi.org/10.1016/j.ajhg.2019.05.007. PMID: 31178127

5. Delnaz Roshandel, Rose Gubitosi-Klug, Shelley B. Bull, Angelo J. Canty, Marcus G. Pezzolesi, George L. King, Hillary A. Keenan, Janet K Snell-Bergeon, David M Maahs, Ronald Klein, Barbara E.K. Klein, Trevor J. Orchard, Tina Costacou, Michael N. Weedon, DCCT/EDIC Research Group, Richard A. Oram, **Andrew D. Paterson** (2018) Meta-genome-wide association studies identify a locus on chromosome 1 and multiple loci in the MHC region for serum C-peptide in type 1 diabetes. Diabetologia **61**(5) 1098-1111. doi: 10.1007/s00125-018-4555-9. PMID: 29404672

Keywords: diabetes, collaboration, diversity, training, informal.

2022 IGES Elections
Candidates for Board of Directors – Elizabeth Blue

Elizabeth (Liz) Blue is an Associate Professor in the Division of Medical Genetics within the Department of Medicine at the University of Washington (UW), where she is a member of the Institute for Public Health Genetics faculty and an Assistant Director of the Washington State Twin Registry. She received her Ph.D. in Anthropology at the University of Utah in 2008, followed by postdoctoral training in statistical genetics at UW before joining the faculty.

Liz's research incorporates tools from population genetics and genetic epidemiology to identify genetic variants influencing disease within and between human populations, as well as to predict and evaluate their functions. While her lab focuses on genetic modifiers of Alzheimer's disease, she is highly collaborative with leadership roles in the Alzheimer's Disease Sequencing Project, the Cystic Fibrosis Genome Project, the UW Center for Mendelian Genomics, and the Pacific Northwest Undiagnosed Diseases Network.

Liz has been an IGES member since 2013, serving on the Young Investigators committee (chair; 2013-2017) and the Communications Committee (2016-present) where she manages the IGES Facebook pages. She shares her enthusiasm for IGES and statistical genetics as a regular mentor at Trainee-Mentor events at both the annual IGES and American Society of Human Genetics meetings.

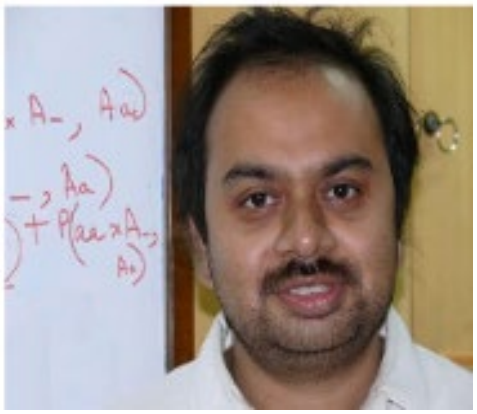
Outside the lab, you can find Liz sending cat memes to friends, playing video games, trying to keep her garden alive, and occasionally traveling for fun this time with her husband.

Five selected publications:

1. Horimoto A.R.V.R., Xue D., Thornton T.A., **Blue E.** (2021) Admixture mapping reveals the association between Native American ancestry at 3q13.11 and reduced risk of Alzheimer's disease in Caribbean Hispanics. *Alzheimers Res Ther*, 13, 122. PMCID: PMC8254995.
2. **Blue, E.E.**, Thornton, T.A., Kooperberg, C., Liu, S., Wactawski-Wende, J., Manson, J., Kuller, L., Hayden, K. and Reiner, A.P. (2021) Non-coding variants in MYH11, FZD3, and SORCS3 are associated with dementia in women. *Alzheimers Dement*, 17, 215-225. PMCID: PMC7920533.
3. Dyment D.A., O'Donnell-Luria A., …, , **Blue E.E.****, Innes A.M.** (2021) Alternative genomic diagnoses for individuals with a clinical diagnosis of Dubowitz syndrome. *Am J Med Genet A*, 185, 119-133. PMCID: PMC8197629. ** joint senior authors.
4. **Blue, E.E.**, Horimoto, A.R.V.R., Mukherjee, S., Wijsman, E.M. and Thornton, T.A. (2019) Local ancestry at APOE modifies Alzheimer's disease risk in Caribbean Hispanics. *Alzheimers Dement*, 15, 1524-1532. PMCID: PMC6925639.
5. **Marchani, E.E.**, Watkins, W.S., Bulayeva, K., Harpending, H.C. and Jorde, L.B. (2008) Culture creates genetic structure in the Caucasus: autosomal, mitochondrial, and Y-chromosomal variation in Daghestan. *BMC Genet*, 9, 47. PMCID: PMC2488347. [original work]

Keywords: careful, curious, cheerful, encouraging, inclusive

2022 IGES Elections
Candidates for Board of Directors – Saurabh Ghosh



Saurabh Ghosh is currently a Professor and the Head of the Human Genetics Unit at the Indian Statistical Institute, Kolkata. He received his undergraduate, masters and Ph.D. degrees in Statistics all from this Institute. After his post-doctoral tenure in the Department of Psychiatry at Washington University School of Medicine in St. Louis, he joined the faculty of the Indian Statistical Institute in 2003. He has been interested in Statistical Genetics and Genetic Epidemiology since his Masters training and carried out his doctoral research on distribution-free linkage methodologies for mapping quantitative traits in the presence of epistasis. During his post-doctoral tenure, he successfully implemented his methodologies in genome-wide scans of quantitative endophenotypes related to alcoholism in the ongoing Collaborative Study on the Genetics of Alcoholism (COGA) project. While his primary research interests lie in the development of novel methodologies for genetic association, he has been involved as the statistical coordinator of multicentric Indian projects on a wide spectrum of complex genetic disorders such as Type 2 Diabetes, major psychosis and autism.

He has been a member of IGES and has regularly attended the Annual Meetings since 2000 (except for a few years in between, primarily due to lack of travel funds) and has been the most familiar face of India in the Society. He has served as the Chair of the Membership Committee of the Society between 2009 to 2012. It was during this tenure that the concept of "Ambassadors" of various countries to the Society was introduced to enhance the membership from countries that had minimal representation in the Society. As the Chair of the Membership Committee, he brought in the proposal of differential membership and meeting registration rates for members working in low income countries so as to facilitate members from such countries to join the Society as well as attend the Annual Meetings. He has also served in the International Advisory Committee of the Genetic Analysis Workshops (GAW) from 2008 to 2013.

He has been involved in major national outreach initiatives for the dissemination of expertise in Statistical Genetics and Genetic Epidemiology through a large number of hands-on Workshops. He is an Associate of the Indian Academy of Sciences and a member of the Task Force for Big Data Sciences in Life Sciences, Government of India. His current research foci are developing methodologies for genetic association analyses of multivariate and comorbid phenotypes as well as for integration of high dimensional genomic and epigenetic data to predict disease risk.

Five selected Publications:

1. Kulkarni H, **GHOSH S** (2017) Including non-informative parents in transmission-based association tests. *J Hum Genet* 62:621-629
2. Majumdar A, Witte J, **GHOSH S** (2015) Semi-parametric Allelic Tests For Mapping Multiple Phenotypes: Binomial Regression And Mahalanobis Distance. *Genet Epidemiol* 39:635-650

3. Majumdar A, Bhattacharya S, Basu A, **GHOSH S** (2013) A novel Bayesian semi-parametric algorithm for inferring population structure and adjusting for case-control association tests. *Biometrics* 69:164-173
4. Haldar T, **GHOSH S** (2012) Effect of population stratification on false positive rates of population-based association analyses of quantitative traits. *Ann Hum Genet* 76:237-245
5. **GHOSH S**, Bierut LJ, Porjesz B, Edenberg HJ, Dick D, Goate A, Hesselbrock V, Nurnberger J Jr, Foroud T, Kramer J, Rice J, Begleiter H (2008) A novel non-parametric regression reveals linkage on chromosome 4 for the number of externalizing symptoms in sib-pairs. *Am J Med Genet* 147:1301-1305

Keywords: dissemination, international inclusivity, appreciating heterogeneity.

2022 IGES Elections
Candidates for Board of Directors – Anne-Louise Leutenegger

Anne-Louise Leutenegger is a senior research associate at INSERM, the French National Institute of Health and Medical Research, in Paris. She obtained her undergraduate degree in statistics, economy and finance from the Université Paris-Dauphine and ENSAE. She then moved to the USA to study statistical genetics in Seattle. She earned her Ph.D. jointly from the University of Washington and the Université Paris-Sud. This research work on modelling genome sharing within and between individuals was awarded the thesis prize by the French Biometric Society. After a post-doc on Parkinson disease genetics, she joined INSERM as a full-time researcher in genetic epidemiology in 2006.

Her research interests focus on statistical developments for specific populations such as population isolates and how population genetics can contribute to disease gene mapping. She has contributed to many collaborative projects aiming at identifying the molecular bases of human traits for both rare monogenic disorders and common multifactorial traits.

At Inserm, she has organised several statistical genetics workshops and has been involved in recruitment and evaluation bodies. She is currently a member of the Inserm scientific advisory board and is co-leading the methodological developments of the Inserm cross-cutting program on Genomic Variability.

She has been an IGES member since her Ph.D., enjoying meetings and Genetic Analysis Workshops. She has been a member of the *Genetic Epidemiology* editorial board since 2011. She is a member of the local organising committee for IGES 2022 and looking forward to welcoming the meeting in Paris.

In her spare time, she enjoys discovering new (local and distant) places with her 2 young daughters and husband, cinema and photography.

Five selected publications:

1. Ruggiero D, Nutile T, Nappo S, Tirozzi A, Bellenguez C, **Leutenegger AL**, Ciullo M. Genetics of PlGF plasma levels highlights a role of its receptors and supports the link between angiogenesis and immunity. Sci Rep. 2021 Aug 19;11(1):16821.
2. Herzig AF, Nutile T, Babron MC, Ciullo M, Bellenguez C*, **Leutenegger AL***. Strategies for phasing and imputation in a population isolate. Genet Epidemiol. 2018 Mar;42(2):201-213
3. Gazal S, Sahbatou M, Babron MC, Genin E, **Leutenegger AL**. FSuite: exploiting inbreeding in dense SNP chip and exome data. Bioinformatics. 2014 Jul 1;30(13):1940-1
4. Edery P, Marcaillou C, Sahbatou M, Labalme A, Chastang J, Touraine R, Tubacher E, Senni F, Bober MB, Nampoothiri S, Jouk PS, Steichen E, Berland S, Toutain A, Wise CA, Sanlaville D, Rousseau F, Clerget- Darpoux F, **Leutenegger AL**. Association of TALS developmental disorder with defect in minor splicing component U4atac snRNA. Science. 2011; 8;332(6026):240-3

5. McQuillan R, **Leutenegger AL**, Abdel-Rahman R, Franklin CS, Pericic M, Barac-Lauc L, Smolej-Narancic N, Janicijevic B, Polasek O, Tenesa A, Macleod AK, Farrington SM, Rudan P, Hayward C, Vitart V, Rudan I, Wild SH, Dunlop MG, Wright AF, Campbell H, Wilson JF. Runs of homozygosity in European populations. Am J Hum Genet. 2008 Sep;83(3):359-72

Keywords: curious, enthusiastic, open, collaborative

2022 IGES Elections
Candidates for Board of Directors – Stephanie Santorico

Stephanie A. Santorico, Ph.D., is Interim Associate Dean for Research and Creative Activities in the College of Liberal Arts and Sciences at the University of Colorado Denver. She is also a Professor in the Department of Mathematical and Statistical Sciences with appointments in the Department of Biostatistics & Informatics, the Human Medical Genetics and Genomics Program, and the Division of Biomedical Informatics and Personalized Medicine. She completed her Ph.D. in Statistics in 1999 at North Carolina State University as a pre-doctoral fellow at the National Institutes of Environmental Health Sciences. Since that time she has held faculty positions at the University of Washington, Oklahoma State University, and now the University of Colorado Denver. In addition, she has worked at start-up biotechnology companies and in the pharmaceutical industry. Dr. Santorico has a track record of impactful research in statistical genetics and genomics as well as significant contributions to graduate and undergraduate education and sustained leadership in an academic, government, and professional setting.

Her research, which has been funded through multiple awards from the National Institutes of Health, is highly interdisciplinary, bridging the areas of statistics and genetics. This has included methods and techniques for detecting genetic variation that associates with human disease, and more recently, translational research working towards disease subtypes that could inform medical treatment. She is heavily involved in understanding the genetic factors that contribute to vitiligo, an autoimmune disease that causes progressive skin bleaching. She was a central contributor to the NIH-funded FaceBase program, which is working to understand the genetic factors that cause variation in facial features for children with a breadth of genetic disorders. Furthermore, her work with the Denver Police Department's world-class crime lab and her collaborations with the Denver Museum of Nature and Science wholly embody her drive to engage with the broader community.

Stephanie's first IGES meeting, held jointly with GAW11, was in 1998 in Arcachon, France. The open exchange of scientific ideas and mentoring aspects sold her on the value of the society – and, experiencing paella for the first time and having wine available at lunch certainly helped with first meeting nerves! Recently, she has been a member of the IGES Education Committee, including serving as co-chair; during which time, the committee organized and released the IGES Coursera course on Genetic Epidemiology Foundations which serves the society's goals of educational outreach while also creating a revenue stream. More at https://www.coursera.org/learn/genetic-epidemiology.

Beyond work, Dr. Santorico recently celebrated 21 years with her wife and is a travel, dachshund, and weightlifting enthusiast.

Five selected publications:

1. Roberts GHL, Santorico SA, Spritz RA. Deep genotype imputation captures virtually all heritability of autoimmune vitiligo. Human Mol Genet. 2020;29(5): 859–863. https://doi.org/10.1093/hmg/ddaa005
2. Roberts GHL, Paul S, Yorgov D, Santorico SA, Spritz RA. Family Clustering of Autoimmune Vitiligo Results Principally from Polygenic Inheritance of Common Risk Alleles. American Journal of Human Genetics. 2019;105(2):364-72. doi: 10.1016/j.ajhg.2019.06.013. PubMed PMID: WOS:000478022200010.
3. Cole JB, Manyama MF, Larson J, Liberton DK, Ferrara TM, Riccardi SL, Li M, Mio W, Klein O, Santorico SA, Hallgrimsson B, Spritz RA. Human Facial Shape and Size Heritability and Genetic Correlations. Genetics. 205(2):967-978. doi: 10.1534/genetics.116.193185
4. Monks SA, Leonardson A, Zhu H, Cundiff P, Pietrusiak P, Edwards S, Phillips JW, Sachs A, Schadt EE. Genetic inheritance of gene expression in human cell lines. American Journal of Human Genetics. 2004;75(6):1094-105. DOI:10.1086/426461. PubMed PMID: WOS:000224866400013.
5. Schadt EE, Monks SA, Drake TA, Lusis AJ, Che N, Colinayo V, Ruff TG, Milligan SB, Lamb JR, Cavet G, Linsley PS, Mao M, Stoughton RB, Friend SH. Genetics of gene expression surveyed in maize, mouse and man. Nature. 2003;422(6929):297-302. DOI:10.1038/nature01482. PubMed PMID: WOS:000181637300037.

Keywords: Interdisciplinary, Collaborative, Inclusive, Weightlifting, Dog mom

IGES 2021 online meeting highlights
Thanks for attending!

IGES 2021 took place virtually from Wednesday, 13 October 2021 to Saturday, 16 October 2021, with a pre-conference Educational Workshop on Polygenic Risk Score (PRS) Best Practices.

Thank you to all our invited speakers!

Heike Bickeböller

Cecilia Lindgren

Hae Kyung Im

Zoltán Kutalik

Ambroise Wonkam

Akinyemi Oni-Orisan

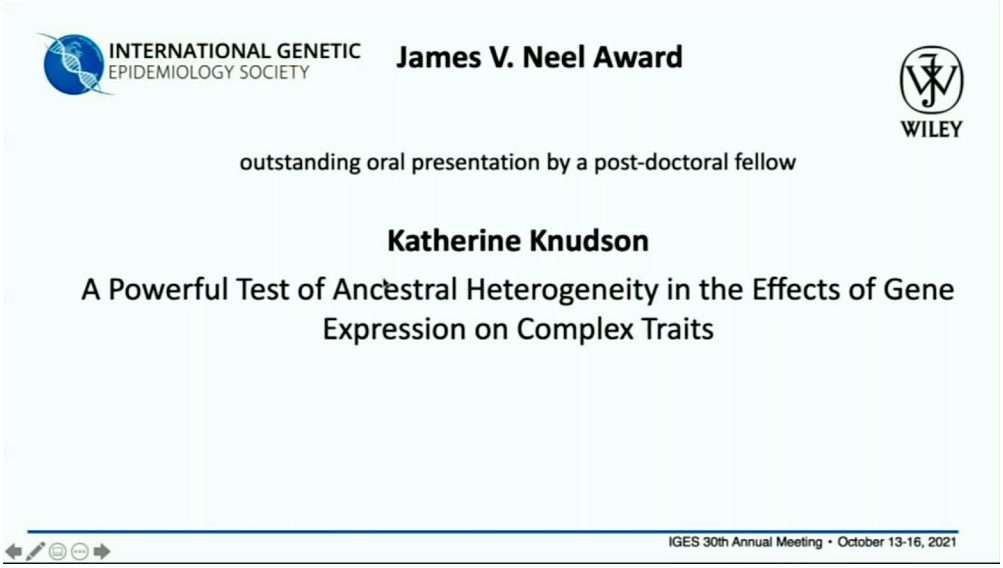
Krystal Tsosie

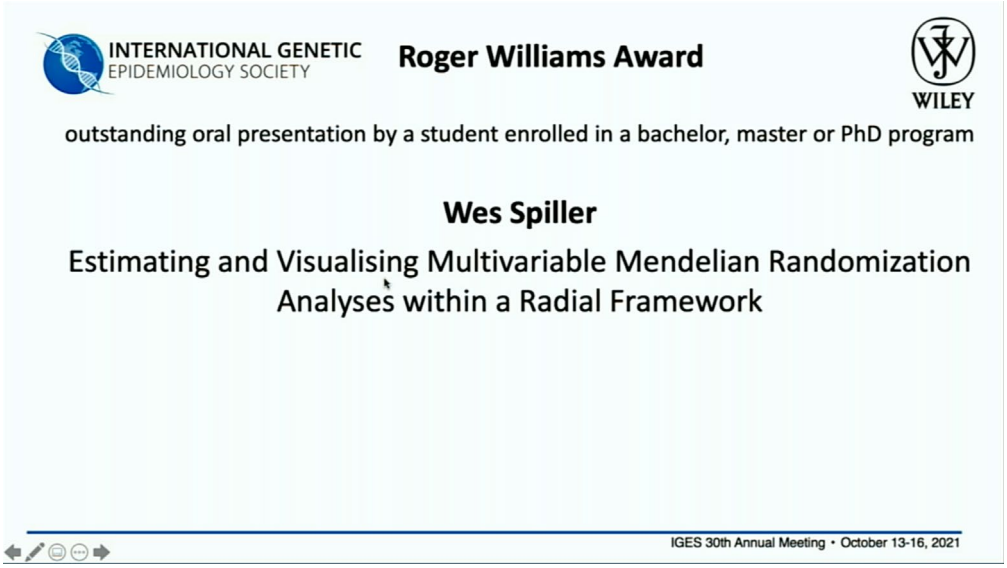
Genevieve Wojcik

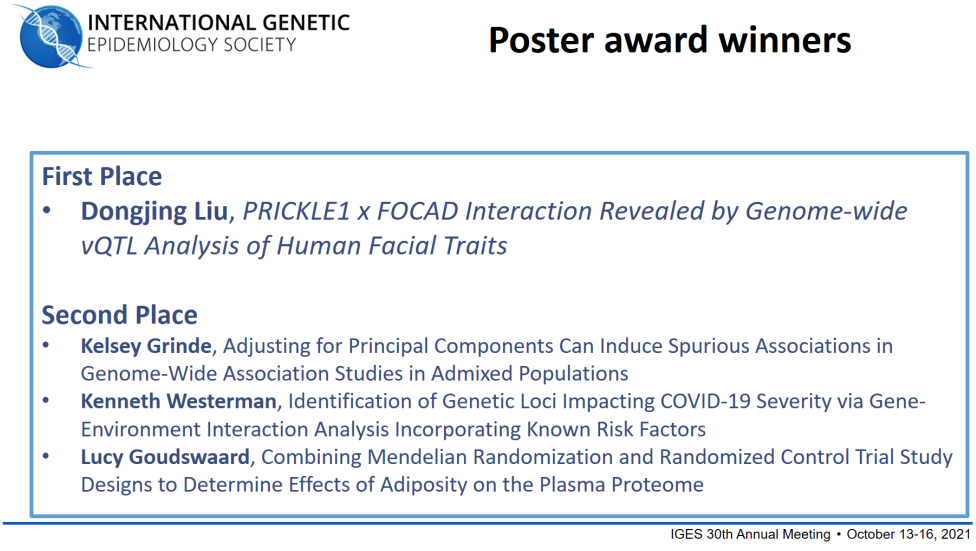
Congratulations to the winners of the **Robert C. Elston Best Paper in *Genetic Epidemiology:***

Dan-Yu Lin [presenter], Donglin Zeng, David Couper. A general framework for integrative analysis of incomplete multiomics data*.* ***Genetic Epidemiology. 2020; 44: 646– 664.***

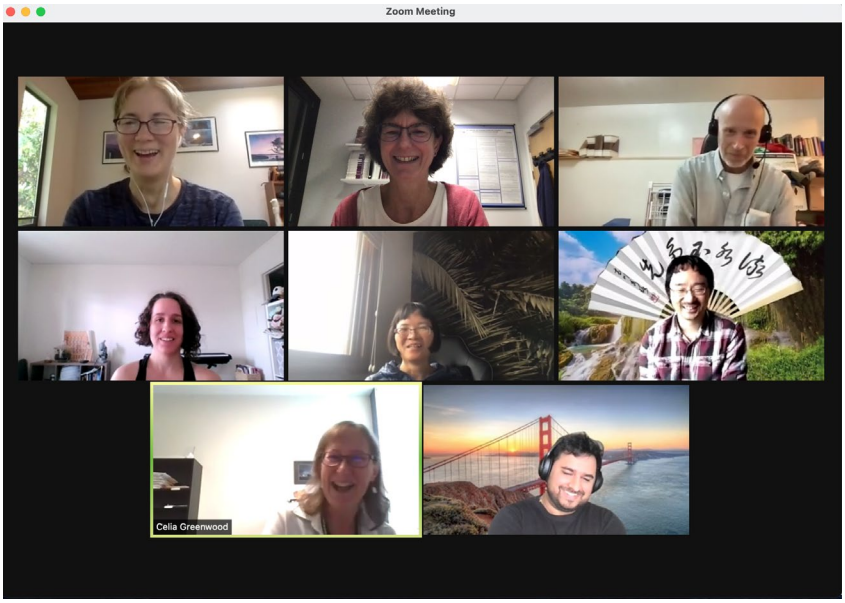
Congratulations to our prize winners:

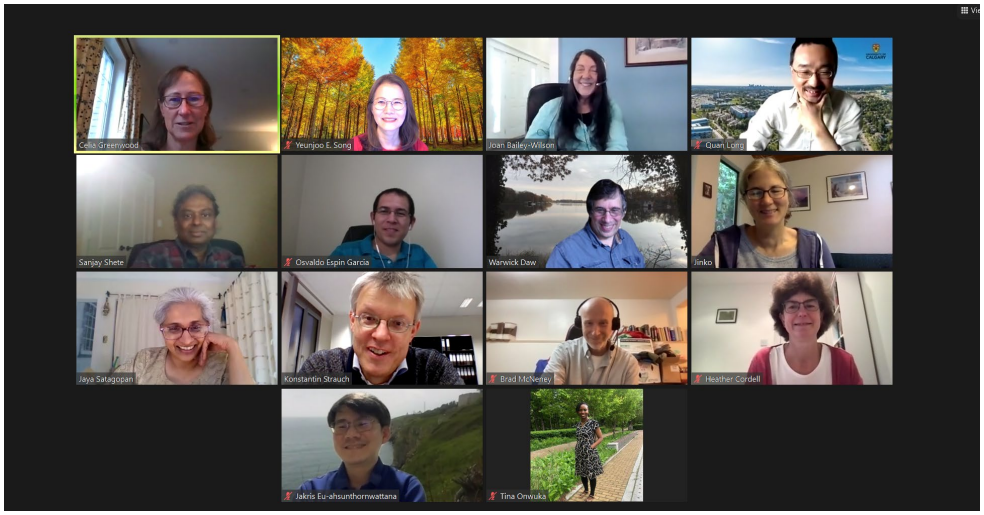


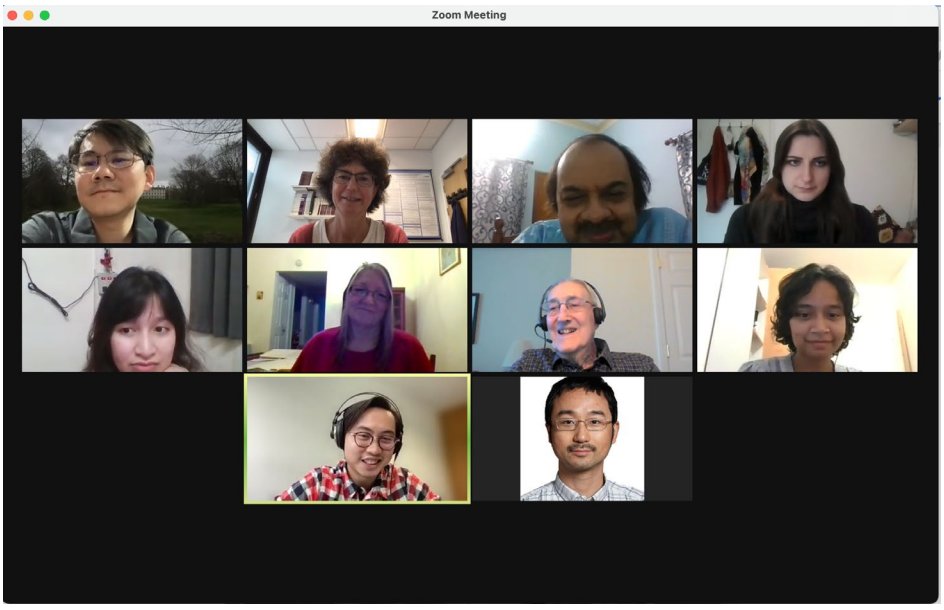




Thanks to all those who hosted and attended Zoom social sessions







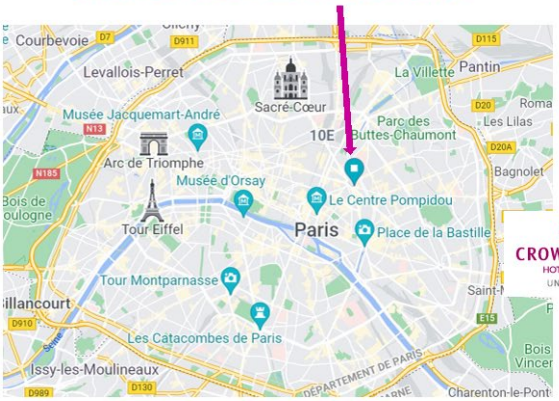
IGES 2022 in Paris
Save the dates and plan to attend!

INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY

Proposed dates and location

Wed 7- Fri 9 September 2022

Crowne Plaza Paris-République



CROWNE PLAZA HOTELS & RESORTS UN HÔTEL IHG

IGES 2026 in Canada
Make plans to attend in five years' time!

IGES 2026: October 17-19, 2026

Venue: the Estérel Resort in the Laurentides (driving time to Estérel from Montreal is 1:45)

We were very sorry to have to cancel the planned 2021 Annual Meeting at the Estérel resort outside of Montreal on account of the continued coronavirus pandemic. However, we have transferred our booking to October 2026 (in five years' time!) just prior to the planned American Society of Human Genetics meeting in Montreal (October 20-24 2026).

2021 IGES Officials

The names of all the IGES officials are available on our **website:**

https://www.geneticepi.org/organization

Current **officers** are: President: Heike Bickeböller; Past-President: Peter Kraft; President-Elect: David Balding; Treasurer: Julia Bailey; Secretary: Heather Cordell; Editor-in-Chief, Genetic Epidemiology: Sanjay Shete.

Board members comprise the officers and the following 6 people: Frank Dudbridge, Jinko Graham, Jaya Satagopan, Maggie Wang, Eleanor Wheeler and Ele Zeggini.

The **Education Committee** is co-chaired by Sarah Buxbaum and Wei Xu.

The **ELSI Committee** is chaired by Ronnie Sebro.

This year's **Publications Committee** is chaired by David Balding (ex-officio).

The **Scientific Program Committee** for 2021 is chaired by Corinne Engelman.

The **Young Investigators' Committee** is chaired by Ekaterina Yonova-Doing.

The **Communications Committee** is chaired by Heather Cordell (ex-officio).

Please refer to the above website for the current respective committee members.

The **Wiley/Genetic Epidemiology Liaison Committee** is chaired by Mike Province. Members are Sanjay Shete, Angelo Canty, and Alexander Wilson.

The **IGES webmaster** is Sarah Gagliano. The **IGES Facebook contact** is Elizabeth Blue, the **Twitter contact** is Priya Duggal and the **LinkedIn contact** is Han Chen.

Membership and conference administration is organized by Vanessa Olmo.

IGES Website: https://www.geneticepi.org
IGES Facebook page: https://www.facebook.com/geneticepi?ref=hl
IGES Twitter page: https://twitter.com/genepisociety
IGES LinkedIn page: https://www.linkedin.com/groups/12061041/

IGES Facebook page exclusively for Young Investigators:
https://www.facebook.com/pages/International-Genetic-Epidemiology-Society-Iges-Next-Generation/174416209303988?ref=hl

This November 2021 Pre-Election Newsletter was edited, proofread, and formatted by Heather Cordell