



INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY

Newsletter – *February 2020 Post-Election Edition*

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Letter from the President
Peter Kraft



Dear IGES Members,

I hope your 2020 is off to a good start, and I wish you a healthy, happy and productive Year of the Rat!

Normally at this time of year I would remind you to get ready to submit your abstracts for the Annual Meeting before the deadline in a few months—but because our meeting is happening in

early July rather than October, abstract submission closed last Thursday, 6 February. I hope everyone who wanted to submit something was able to do so.

I am looking forward to seeing many familiar and many new faces at the Annual Meeting in Seoul, 1-3 July—the first IGES meeting in Asia! Please watch the IGES 2020 website for updates on the program and meeting logistics (e.g. early registration deadlines):

<https://iges.memberclicks.net/iges-2020>. Thanks to our Past-President Celia Greenwood and local organizing committees and IGES members in Hong Kong and Seoul—including Maggie Wang, Pak Sham, Yun Joo Yoo, Sungho Won and Taesung Park—for all their hard work making the transition from Hong Kong to Seoul on short notice as smooth as possible.

This year's meeting will feature a special session on biobanks, with representatives from several large international biobanks presenting and participating in a panel discussion. Thanks again to Celia for securing support from the Canadian Institutes of Health Research for this session. And thanks to Ching-Ti Liu and the Program Committee for inviting a set of international keynote speakers with diverse expertise so quickly.

The Educational Workshop on July 4 will focus on Best Practices for Polygenic Risk Scores (<https://iges.memberclicks.net/2020-educational-workshop>). Statisticians and epidemiologists from the University of Toronto McLaughlin Centre will introduce tools for the construction, validation and calibration of polygenic risk scores in both high-risk and population-based settings.

If you will attend this year's annual meeting, consider staying in Seoul for the International Biometric Conference on 5-10 July. IGES has organized an invited session on "Statistical Issues in Developing and Evaluating Polygenic Risk Models," featuring Sohee Park, Alica Martin, Frank Dudbridge, and myself, chaired by Celia Greenwood.

Please join me in congratulating our new President Elect, Heike Bickeboeller, and new Board Members, Frank Dudbridge and Jinko Graham. The strength of our society is in our members, so please consider joining a committee: the Communications Committee, Young Investigators Committee, ELSI Committee, or Education Committee. Contact the Committee Chair for more information (<https://iges.memberclicks.net/organization>).

Finally, on a personal note, I am honored and excited to start my term as IGES President. I have learned so much at IGES meetings and from IGES members—and not just genetics, biology, epidemiology, and maths, but also collegiality and collaboration. I am also glad to serve as President at a time when IGES is further expanding its international scope and membership.

I look forward to seeing many of you in Seoul!

Peter Kraft

2020 IGES President

Treasurer's Corner
Mariza de Andrade



I am pleased as Treasurer to share with IGES members that we remain in good financial standing, and that we will continue to be vigilant in our negotiations and management of resources to maintain this good standing.

I would like to remind IGES members that the 2020 IGES membership is open – please go to <https://www.geneticepi.org/membership-fees-2020> for details. Please encourage your colleagues and collaborators to join as well! Don't forget that IGES continues to offer additional categories of registration for members from low- or lower-middle- income countries.

As a reminder, IGES is a charitable and educational organization, and any contribution other than membership and meeting registration fee is tax-deductible. This can be done along with your membership renewal process. Your continuous support of IGES is appreciated!

This is my last year as the IGES treasurer after 8 years. The new treasurer will be elected in the first semester of 2020.

It was a pleasure for me to be the IGES treasurer.

Mariza de Andrade

Treasurer

Editor's Corner, Genetic Epidemiology
Sanjay Shete

Dear IGES members, as an official journal for our society, **with an impact factor of 2.5**, 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 January 2020 issue can be found here:

<https://onlinelibrary.wiley.com/toc/10982272/current>

Editor's pick paper from last two issues:

Combining sequencing data from multiple sources by Chen, Boehnke, Fuchsberger. See the link below.

<https://onlinelibrary.wiley.com/doi/10.1002/gepi.22261>

Summary statistics analyses can mistake confounding bias for heritability by Holmes, Speed, and Balding. See the link below.

<https://onlinelibrary.wiley.com/doi/10.1002/gepi.22259>

- Top-cited Genetic Epidemiology articles can be found here:

[https://onlinelibrary.wiley.com/doi/toc/10.1002/\(ISSN\)1098-2272.GEPI-top-cited](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>

AUTHOR SERVICES: Wiley has an updated list of services it offers our authors. For more information, please visit <http://authorservices.wiley.com>

We now 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

IGES 2020 Membership Drive

Dear IGES members,

Don't forget to renew your membership for 2020! Registration/renewal opened on November 1st 2019. The early-bird membership fee was available until January 31, 2020.

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 2020 IGES membership:

- Regular member **US\$130**, if paid by January 31, 2020 (early-bird)
- Regular member **US\$155** if paid on or after February 1, 2020
- Student and Post-Doctoral* member with online access to Journal **US\$68**, rate continues all year but please aim to pay by January 31, 2020
- Student and Post-Doctoral* member **without** online access to Journal **US\$25**, rate continues all year but please aim to pay by January 31, 2020
- 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 2019 Elections for 2021 President and 2020 Members of the Board of Directors Election Results

Thank you to all the members who cast their votes in the recent ballot. Here are the results of the 2019 Elections:

We congratulate **Heike Bickeböller** on her election as IGES President in 2021. Heike will take on the role of President-Elect in 2020.



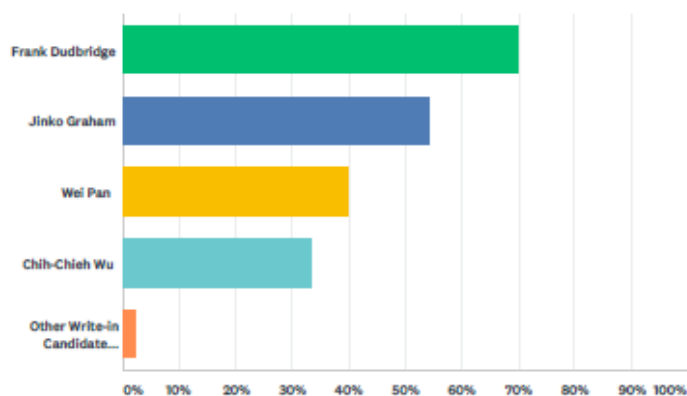
After an extremely close election, our congratulations also go to **Frank Dudbridge** and **Jinko Graham** on their election as members of the IGES Board of Directors to serve from January 1st 2020 to December 31st 2022.

2019 Election for 2020 Board Members and 2021 President

SurveyMonkey

Q2 Please select only 2 candidates from the list below to serve on the Board of Directors

Answered: 90 Skipped: 0



Congratulations to the successful candidates and thank you to everyone who stood for election for your candidacy and support of IGES.

[The ballot paper for these elections was 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].

Election of IGES Treasurer July 2020 - June 2023

Candidate: Julia Bailey

All current IGES members are eligible to cast their vote in the election of a new IGES Treasurer for the period of office of three years from 1st July 2020 to 30th June 2023, in accordance with the IGES Bylaws.

The ballot paper for these elections will be sent out by SurveyMonkey and the ballot will remain open for a period of 21 days. We anticipate opening the ballot on or before 1st March 2020. The results will be announced on the IGES website and published in the Post-Conference Newsletter.

The candidate nominated by the IGES Board of Directors for this position is:

Julia Bailey

Julia served on the IGES Board of Directors from 2016-2018, and she is now standing for election as Treasurer. Please find Julia's biosketch overleaf.

Additional nominations for the position of Treasurer can be made from any the IGES membership when supported by five members in good standing. Please send any additional nominations to iges@geneticepi.org.

[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].

Election of IGES Treasurer July 2020 - June 2023

Candidate: Julia Bailey

Julia N. Bailey is an Adjunct Associate Professor in the Department of Epidemiology at the University of California, Los Angeles. She has a joint appointment at the West LA Veterans Administration and is the Director of the Statistical Genetics Unit, Genetics/Genomics Epilepsy Laboratory. She has been involved in IGES since her second year of graduate school (1990). She has been on the membership committee (2000-2009), is an IGES ambassador to Latin America (2000-present), was on the education committee (2009-2010) and was chair (2010-2013), and was elected to the board of directors in 2016-2018. She is also very involved in the Genetic Analyses



Workshop, she has been a senior workshop leader since 2011 and a member of the GAW advisory board since 2014. Dr. Bailey's research involves localizing genes for epilepsy and PTSD. She collaborates with a consortium in Latin America and actively supports research in Honduras by collaborating on study designs, helping with analyses, and has just recently become an editor to a new journal 'INNOVARE revista de Ciencia y Tecnologia' from UNITEC University. Dr. Bailey is a historical reenactor and researches and creates historic costumes. She founded a company (Garb the World) during her post doc, to help pay off student loans and provide income for friends who could stitch and wanted to stay home with babies. Her friends ran the company and did production, but Dr. Bailey does all the bookkeeping. Dr. Bailey has the dedication to IGES and the bookkeeping skills to be treasurer.

Keywords: Helpful, outgoing, approachable, kind, forthright

Five selected publications:

1. Bailey JN, Almasy L (1995): A brute force dichotomization approach to quantitative trait linkage analyses. *Genetic Epidemiology* 12:719-722. PMID: 8787998.
2. Goenjian AK, Noble EP, Steinberg AM, Walling DP, Stepanyan ST, Dandekar S, Bailey JN (2014): Association of COMT and TPH-2 genes with DSM-5 based PTSD symptoms. *Journal of Affective Disorder*. 22;172C:472-478. PMID: 25451452.
3. Wight JE, Lin Y, Nguyen V, Tanaka M, Bai D, Aftab S, Patterson C, Durón RM, Medina MT, Bailey JN, Delgado-Escueta AV. (2016): Identification of Juvenile Myoclonic Epilepsy Loci in Chromosomes 16p13.3, 13q31.1, and 4q35.2 in Honduran Families: Linkage to Epilepsy and Encephalography Trait. *Molecular Genetics & Genomics Medicine* 23;4(2):197-210. PMID: 27066514.
4. Bailey JN, Patterson C, de Nijs L, Durón RM, Nguyen VH, Tanaka M, Medina MT, Jara-Prado A, Martínez-Juárez IE, Ochoa, Molina Y, Suzuki T, Alonso MA, Wight JE, Lin YC, Guilhoto L, Yacubian EMT, Machado-Salas J, Daga A, Yamakawa K, Grisar TM, Lakaye B, Delgado Escueta AV. (2017):

- EFHC1 variants in Juvenile Myoclonic Epilepsy: Reanalysis according to NHGRI and ACMG Guidelines for assigning disease causality. *Genetics in Medicine* 19(2):144-156. PMID: 27467453.
5. Bailey JN, Bai D, de Nijs L, Suzuki T, Medina MT, Serratosa JM, Duron RM, Alonso ME, Patterson C, Tanaka M, Wight JE, Lin Y, Martinez-Juarez IR, Ochoa A, Jara-Prado A, Guilhoto L, Yacubian M, Murayama M, Inoue Y, Kaneko S, Hirose S, Osawa M, Oguni H, Fujimoto S, Grisar TM, Yamakawa K, Lakaye B, Delgado-Escueta AV. Heterozygous variants in Intestinal Cell Kinase Impair Mitosis, Cell Cycle Exit and Radial Neuroblast Migration and cause Juvenile Myoclonic Epilepsy. *N Engl J Med*. 2018 Mar 15;378(11):1018-1028.

IGES 2020 in Seoul, South Korea
Registration is now open!



INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY Annual meeting 2020

July 1-4, 2020, Seoul, South Korea

- Special session on large biobanks
- Invited speakers from UK, China & USA

July 4th: Best practices for polygenic scores educational workshop



At the Global Education Center for Engineers Convention, Seoul National University.

For more information:
www.geneticepi.org/iges-2020

Combine your IGES trip with the **International Biometric Society meeting, July 5-10** ibc2020.org where IGES is sponsoring an invited session



<p style="text-align: center;">Committee Reports Latest news from IGES Committees</p>

This section contains current news and announcements from the IGES Committees. We often have vacancies to fill on IGES committees. If you are interested in joining an IGES Committee, please contact the relevant Committee Chair listed on the IGES website, or email us at iges@geneticepi.org.

Scientific Program Committee

The Program committee is developing a rich program for IGES 2020 including speakers from different continents. Invited speakers include Dr. Xihong Lin of the Harvard T.H. Chan School of Public Health, USA, a long-time IGES member and elected member of the National Academy of Medicine, USA; Dr. Zhengming Chen of the Nuffield Department of Population Health, Oxford University, UK, and lead principal investigator of the Kadoorie Biobank; Dr. Hongbing Shen, Nanjing Medical University, recently elected to the Chinese Academy of Engineering (CAE); Dr. Philip Awadalla, Ontario Institute for Cancer Research and Director of the Canadian Partnership for Tomorrow Project; and Dr. Geoffrey Ginsburg, Duke Centre for Applied Genomics and Precision Medicine, co-Chair of the International HundredK+ Cohorts Consortium. There will be a special session on large population biobanks including a discussion on the challenges and opportunities for working with large-scale biobank data.

Ching-Ti Liu
Scientific Program Committee Chair

Communications Committee

Members of the Communications Committee have been active in managing the IGES website, Facebook, LinkedIn and Twitter pages. We use these media to advertise not only IGES news and events, but also happenings in genetic epidemiology that may be of interest to IGES members. We also maintain a section on the IGES webpage on relevant job position openings.

This year we have continued our initiative of publicising monthly “highlighted” papers (in any journal) by IGES members, and an “Editor’s pick” paper from each issue of Genetic Epidemiology.

We are planning additional publicity centered around the upcoming IGES meetings in Seoul.

Heather J. Cordell
Communications Committee Chair

Young Investigators' Committee

We are busy planning events and resources for the 2020 annual meeting in Seoul. If you have ideas of events/activities you would like to see included, please contact us.

Student-Mentor Luncheon: As in previous years, there will be the Student-Mentor Luncheon (more information to follow). The lunch is a great possibility to receive career advice and network. Furthermore, job seekers and those searching for job candidates are invited to attend and please bring paper copies of your advertisements and CVs to share. Could senior investigators who are interested in participating as a mentor please contact the committee chair: Kate Yonova-Doing (ey246@medschl.cam.ac.uk).

Future Young Investigator Committee Members: the committee is recruiting additional members. Investigators interested in joining please contact the committee chair: Kate Yonova-Doing (ey246@medschl.cam.ac.uk).

Ekaterina Yonova-Doing
Young Investigators' Committee Chair

Education Committee

Members: Sarah Buxbaum, Todd Edwards (Co-Chair), Elizabeth Gillanders, Nadezda Lipunov, George Papanicolaou, Stephanie Santorico (Co-Chair), Tae-Hwe (Linus) Schwantes-An, Yan Sun, Wei Xu, Silke Szymczak

IGES 2020 Educational Workshop: The IGES 2020 Educational Workshop will be on Polygenic Risk Score (PRS) Best Practices, led by the University of Toronto McLaughlin Centre PRS Team.

- Day/time: July 4, 2020, 10am – 5pm
- Registration Fee: \$100 (non-trainee) and \$50 (trainee)

Being able to predict an individual's risk of common and rare conditions is regarded by many as the holy grail. Polygenic Risk Score (PRS) as a tool for prediction and early prevention of diseases has captivated the imagination of all aspiring to improve patient and population health. So has the potential of PRS as a tool in assessing causality or improving statistical power for new genetic discoveries.

The PRS, sometimes known as a genetic risk score or genome-wide polygenic score (GPS), is a weighted sum of the effect sizes of genetic variants on a given trait as estimated from a genome wide association study (GWAS). Since its early appearance in the mid 2000's, in the form of simple Genetic Risk Score, PRS tools have been increasingly popular and have been applied to a wide range of health outcomes and contexts. There are limitations in many current applications of PRS and outcome prediction. Sophisticated and robust approaches built on more realistic model assumptions that better reflect the complex etiology of health outcomes are what the University of Toronto McLaughlin Centre PRS team is dedicated to achieving.

The University of Toronto McLaughlin Centre PRS team of statisticians and epidemiologists will introduce in this workshop present-day PRS Best Practices, along with the team's perspective on methodological gaps that are limiting the robustness and scope of current PRS applications. The team will situate the role of PRS in both high-risk and population-based prevention approaches, with a focus on the latter. The construction, assumptions, validation and calibration of PRS tools will be presented, along with methodological and implementation limitations of current PRS tools, and the team's perspective on the PRS methodological innovation needs.

This is an introductory to intermediate level course. No prior experience with PRS is required but prior experience with the analysis and interpretation of GWAS studies is required.

This is a multi-pedagogical modular approach workshop that includes didactic, hands-on and panel discussion. Course materials will be provided for download by registrants prior to the course.



Coursera MOOC in Genetic Epidemiology: Bruce Weir completed his filming for the module on *Introduction to population genetics: models and assumptions*. We have resumed filming and editing at the University of Colorado Denver with the final two course modules to be filmed at the end of March. Our goal remains completion of all sections by the next IGES meeting.

2020 IGES Officials

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

<https://www.geneticepi.org/organization>

Current **officers** are: President: Peter Kraft; Past-President: Celia Greenwood; President-Elect: Heike Bickeböllner; Treasurer: Mariza de Andrade; Secretary: Heather Cordell; Editor-in-Chief, Genetic Epidemiology: Sanjay Shete.

Board members comprise the officers and the following 6 people: Frank Dudbridge, Liz Gillanders, Jinko Graham, Jaya Satagopan, Pak Sham and Ele Zeggini.

The **Education Committee** is co-chaired by Stephanie Santorico and Todd Edwards.

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

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

The **Scientific Program Committee** for 2019 is chaired by Ching-Ti Liu.

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 Web Site: <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 February 2020 Post-Election Newsletter was edited, proofread, and formatted by Heather Cordell