

Statistical Society of Australia

SSA Biostatistics & Bioinformatics Newsletter

Q1 2020

Welcome to our first newsletter of 2020!

In the wake of the crisis of this pandemic, the Biostatistics and Bioinformatics section committee hope you, your family, and your friends are keeping well. Many of you will have been experiencing challenging times and we hope you are managing to adapt to the new "normal" in your personal and working life.

This newsletter contains updates on the Australian Statistical Society and New Zealand Statistical Association Conference and our Biostatistics and Bioinformatics section mentoring program pilot. Also, we have included some resources that may be of interest for those whose research may have been impacted as a result of this pandemic. Finally, to help you "stay at home", check-out our selection of favourite statistical podcasts.

Stay safe and healthy!

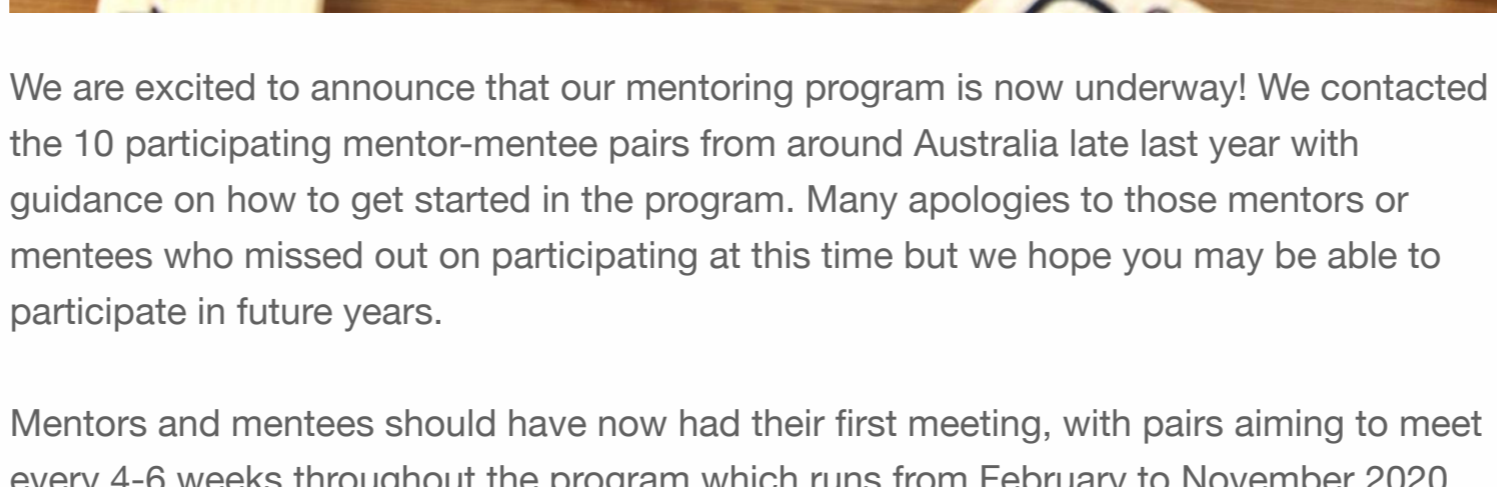
The SSA Biostatistics and Bioinformatics section committee

ANZSC Conference



After careful consideration and in light of the ongoing Coronavirus (COVID-19) developments, the conference organising committee had to make the difficult decision to postpone ANZSC 2020 & OZCOTS until next year, 5-9 July 2021. Government restrictions on meetings and travel as well as travel bans issued by universities, associations and companies would have made it impossible to hold a successful conference this July. Rescheduling the event will enable the organizers to provide the experience that our delegates, exhibitors and sponsors expect from a statistical conference held in Australia. More details can be found [here](#).

SSA Biostatistics & Bioinformatics section mentoring update



We are excited to announce that our mentoring program is now underway! We contacted the 10 participating mentor-mentee pairs from around Australia late last year with guidance on how to get started in the program. Many apologies to those mentors or mentees who missed out on participating at this time but we hope you may be able to participate in future years.

Mentors and mentees should have now had their first meeting, with pairs aiming to meet every 4-6 weeks throughout the program which runs from February to November 2020. We hope that this mentoring program will help support mentees in their career development and that both mentors and mentees will learn a lot through their participation. Mentors and mentees will be asked to complete surveys throughout the program to help us assess the benefits of being part of the program and to help us alter the program to meet the needs of participants. We're delighted that all mentors and mentees responded to the pre-commencement survey. It's great not to have missing data to contend with! We will keep you posted on the program throughout the year but we are very happy to have already received some positive feedback from participating mentees.

Since the COVID-19 pandemic has led to physical distancing, we have encouraged all mentors and mentees who were able to meet face-to-face to restrict their meetings to online or telephone meetings. Although mentoring discussions and priorities may have altered due to the pandemic, we feel it is important to continue with the mentoring program to ensure early-career biostatisticians and bioinformaticians have some support during this challenging time.

If you have any questions about our mentoring program, please do not hesitate to contact our coordinator, [Karen Lamb](#).

Resources related to COVID-19

Some of you may be experiencing an impact of the crisis in your professional life (e.g. contract, employment). We would like to draw your attention to the email sent by the SSA in March to support its members through the COVID-19 pandemic.

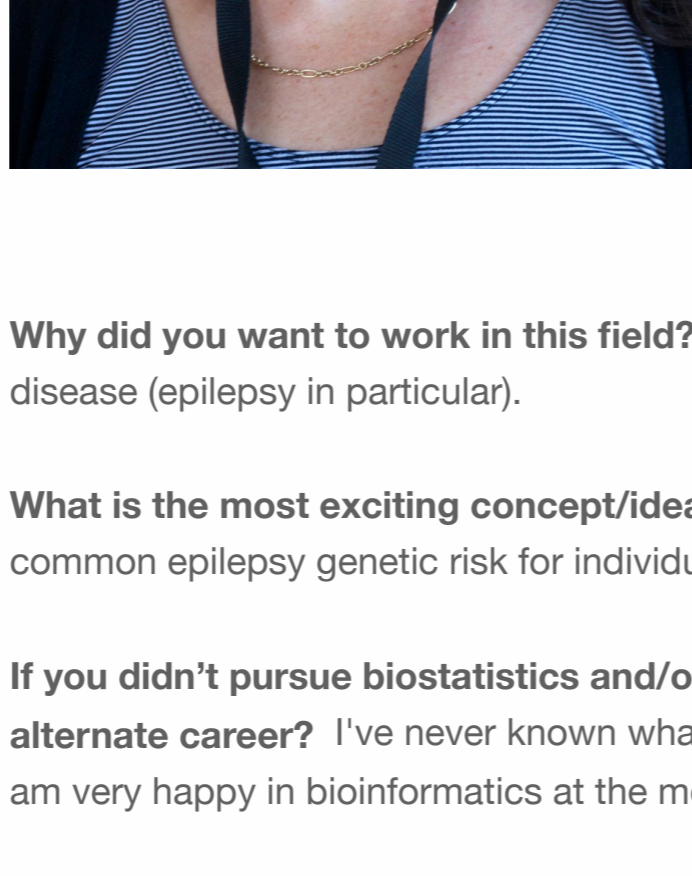
You may be engaged and involved in the consequences of the pandemic on clinical trials and observational studies either via ongoing or new projects. Our Section is actively collating resources on the methodological aspects that you may have to tackle, for example:

- When setting up a new clinical trial related to a treatment for COVID-19, the WHO has released a blueprint of the synopsis for such clinical trials.
- When discussing the impact of COVID-19 on ongoing clinical trials, the European Medicines Agency has drafted a [point to consider document](#).

This space is rapidly evolving. We welcome input from our member to help us collate a list of documents and publications on the topic of biostatistics and bioinformatics methodology to deal with the impact of the pandemic on both ongoing and new trials and studies. Please contact [Sabine Braat](#) or [Karen Lamb](#) if there is any resource you would like to share with other members of the Biostatistics and Bioinformatics Section.

Finally, the SSA has compiled some general [resources](#) on COVID-19.

Meet our mailing list



Name: Karen Oliver

Where do you currently work? Walter and Eliza Hall Institute of Medical Research (WEHI) and the University of Melbourne (UniMelb)

What field do you associate with, biostatistics or bioinformatics (or both)? Bioinformatics.

What are your background studies in and how did you join this field? Began my career as a clinical genetics research assistant at UniMelb. I wanted to be just like our gene finding collaborators at the WEHI so I studied MSc (Bioinformatics); now doing my PhD.

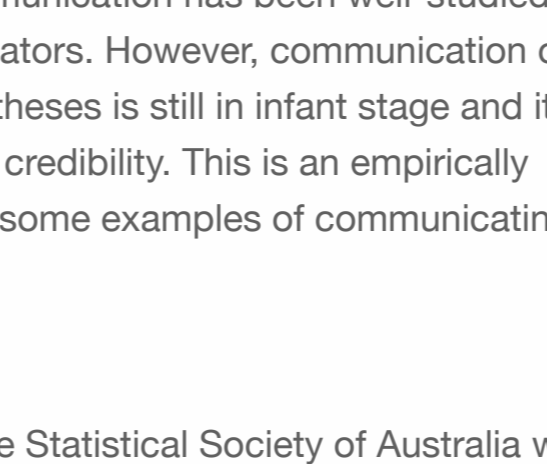
Why did you want to work in this field? To better understand the genetic basis to disease (epilepsy in particular).

What is the most exciting concept/idea upcoming in your work or field? The role of common epilepsy genetic risk for individuals and within families.

If you didn't pursue biostatistics and/or bioinformatics, what would have been your alternate career? I've never known what I wanted to be when I grew up; I still don't, but am very happy in bioinformatics at the moment.

Want to be featured in the next member profile?

We are always in need of more member profiles. It's a great way to get some exposure to our >200 readers. If interested, please contact [Nicole De La Mata](#).



SSA webinars and events

Communicating health risk and scientific uncertainty by Sir David Spiegelhalter

This was a wonderful presentation was the last webinar for the year 2019 and can be viewed [here](#). Some interesting things covered the creation of online interactive tools, including Predict for [breast cancer](#) and [prostate cancer](#). His presentation can be summarised as follows, risk quantification and communication has been well-studied, leading to recommendations for creating web calculators. However, communication of uncertainty about facts, numbers, or scientific hypotheses is still in infant stage and it needs to be communicated without losing trust and credibility. This is an empirically researchable issue. In this webinar Sir David shows some examples of communicating uncertainty using numerical and graphical means.

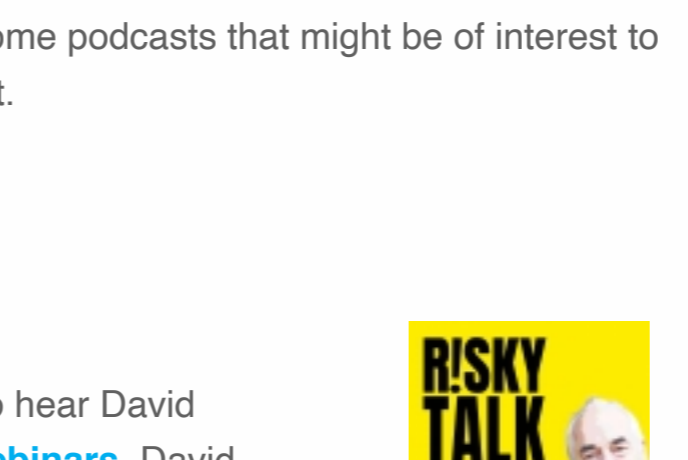
Queensland Branch biostatistics presentation

On the 9th June 2020, the Queensland Branch of the Statistical Society of Australia will be holding an online biostatistics presentation. This presentation will feature Susanna Cramb, a strategic research fellow at Queensland University of Technology. Susanna has an interest in investigating differences in chronic disease outcomes based on where people live. Dr Cramb is a fantastic presenter and this presentation will be well worth a listen. Keep an eye on the Queensland branch [Facebook](#) page for further information on this presentation.

More upcoming SSA webinars and events can be found [here](#).

Women in Mathematics Special Interest Group (WIMSIG)

The Women in Mathematics Special Interest Group (WIMSIG) has been a active special interest group of the Australian Mathematical Society since early 2013. In 2017, it held its first conference organised and presented by women only and showcased the research of women in Australian mathematical sciences - the first such conference in Australia.



The second WIMSIG conference was planned for 1-2 October 2020, to be held at the Monash University in Melbourne. However, the conference [has now been postponed until 28th September to 1st October 2021](#).

As with the first conference, presenters and organisers will be women only working in the field of mathematics but attendees of all genders are welcome and encouraged to attend to support their female colleagues. Committee members Nicole and Alysha have joined the conference organisers to ensure women in biostatistics and bioinformatics are well represented. Expressions of interest seeking potential female presenters in these fields will open early next year.

If you have any questions or suggestions for WIMSIG please let [Nicole De La Mata](#) or [Alysha De Livera](#) know.

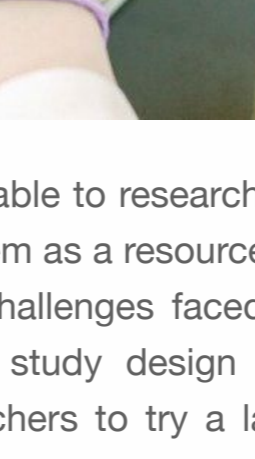
Podcasts



In previous newsletters we put together a list of interesting and entertaining statistics blogs (see our April 2019 and June 2019 newsletters [here](#) for a more extensive list). With this newsletter, we would like to start highlighting some podcasts that might be of interest to our mailing list.

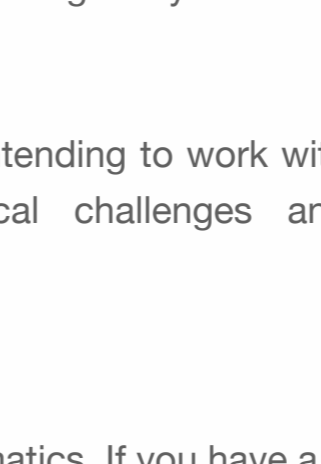
Risky Talk

Many of you may have been fortunate enough to hear David Spiegelhalter speak at one of the recent [SSA webinars](#). David Spiegelhalter is a phenomenal statistical communicator and has recently created a monthly podcast to better communicate risk. Episodes include discussions about genetic risk, statistics in the headlines and communicating climate change. All episodes are available [here](#).



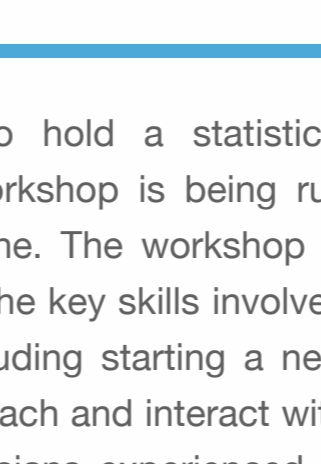
Causal Inference

That's correct, we really did mean causal inference. This podcast features discussions about statistics, epidemiology, data science and causal inference in an accessible (casual!) way. Hosted by Lucy D'Agostino and Ellie Murray, the podcast has featured guests such as Miguel Hernan and Elizabeth Stuart and would be of interest to any biostatisticians and bioinformaticians who want to know more about developments in causal inference and thinking. All episodes are available [here](#).



The Effective Statistician

The Effective Statistician helps statisticians (or maybe data scientists) both at a junior and experienced level. It covers topics relevant for those with and without administrative leadership positions. Examples arise from the health sector mainly, but statisticians or data scientists outside of this industry will surely benefit as well. All episodes are available [here](#).



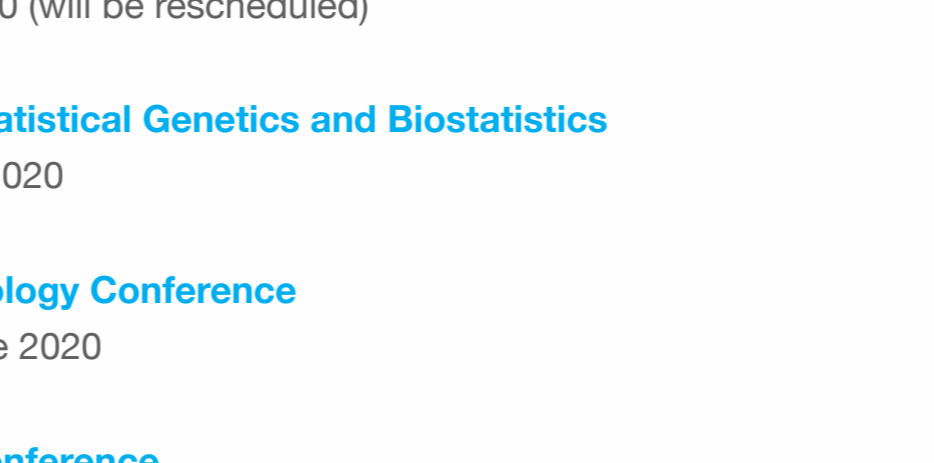
Do you have a favourite statistical podcast or blog?

We'd love to have your input to grow our lists. Perhaps you would be happy to provide a brief overview of your favourite statistical podcast or blog to feature on our mailing list. If so, please contact [Karen Lamb](#) with the details.

Featured articles

The emerging landscape of health research based on biobanks linked to electronic health records

In [this paper](#), Lauren J. Beesley and others describe the recent developments in research relating to the use of data linkage between biobanks and electronic health records (EHR) to create richer data sources.



The authors start by characterising the major biobanks currently available to researchers, describing the types of data they contain and the potential of using them as a resource for medical research. It is also noted however, that there are several challenges faced by researchers working with biobanks, as the traditional process of study design and hypothesis testing is often skipped, "there is a tendency for researchers to try a large number of analyses and broadly define their research question based on an analysis that shows something interesting".

Several statistical issues related to EHR-linked biobank data analysis are also described, including handling potential sources of biases such as selection bias, challenges in defining the phenome, misclassification, need for appropriate modelling techniques, dealing with missing data, multiple testing of hypotheses and heterogeneity between biobanks.

Overall, the article is a great resource for anyone working with, or intending to work with biobanks or large observational cohorts, raising the statistical challenges and considerations entailed in analysing such datasets.

Recent publication that you'd like to share?

We love learning about all things related to biostatistics and bioinformatics. If you have a recent publication (your own or other) that you'd like to have featured in our newsletter, please contact [Nicole De La Mata](#) with the details.

Statistical Consultancy Workshop

The biostatistics and bioinformatics committee are planning to hold a statistical consultancy workshop in Brisbane later in 2020. This full day workshop is being run following the great success of our previous workshop in Melbourne. The workshop is designed to provide participants with an understanding of some of the key skills involved in biostatistical consultancy. This will cover a range of topics including starting a new consultancy service, developing a consultancy service and how to reach and interact with different clients. The course will feature presentations from statisticians experienced in biostatistical consultancy, as well as an interactive panel session to allow participants to pick the brains of our experts!

This workshop is aimed at statisticians who provide statistical advice, analysis, and training to non-statisticians. This workshop will be of greatest interest to those wanting to start a consultancy, recent graduates, and early career researchers who are keen to develop their skills in this area.

Stay tuned for more information in upcoming newsletters.

Other upcoming events

There are a range of events of interest for biostatisticians and bioinformaticians taking place in 2020. Some of these events may have been impacted due to the crisis. Please always check out the conference website to ensure you have the latest update on whether a conference goes ahead or not.

[24th International Conference on Research in Computational Molecular Biology](#)
Padova, Italy, 10th-13th May 2020 (will be rescheduled)

[International Conference on Statistical Genetics and Biostatistics](#)
Vienna, Austria, 18th-19th June 2020

[7th International Statistical Ecology Conference](#)
Sydney, Australia, 22th-26th June 2020

[30th International Biometric Conference](#)
Seoul, Korea, 5th-10th July 2020 (will not proceed as planned)

[Intelligent Systems for Molecular Biology \(ISMB\)](#)
Montreal, Canada, 12th-16th July 2020 (closely monitoring the situation)

[41st Annual Conference of International Society for Clinical Biostatistics](#)
Krakow, Poland 23th-27th Aug 2020

If you would like to advertise any upcoming biostatistics or bioinformatics events to our mailing list, please contact one of our co-Chairs, [Sabine Braat](#) or [Jaimi Greenslade](#)

Closing comments

Our Section Committee is interested in biostatistics and bioinformatics and we are committed to assisting you with your career in biostatistics or/and bioinformatics. We are interested in hearing from our members, especially regarding ideas for future events, presentations, webinars or workshops held by the SSA Biostatistics & Bioinformatics section. We are interested in hearing about our members and how they became involved in biostatistics or bioinformatics.

Please contact us via our section co-Chairs, either [Sabine Braat](#) or [Jaimi Greenslade](#) regarding these or any other related queries.

If your colleagues would like to receive this newsletter, they can sign up via [mailchimp](#)

To view previous newsletters please see our [section's webpage](#).

Social media

We encourage all our members to follow our activities on our social media account links below. We actively promote upcoming events, job opportunities and relevant material. Our online community is growing with over 646 followers on Facebook and 396 on Twitter. If you have any material you would like us to promote on our social media outlets or share with the fellow members, please let [Sabine Braat](#) know.

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