



## SSA Biostatistics & Bioinformatics Newsletter

Q1 2022

Welcome to the SSA Biostatistics and Bioinformatics Newsletter for Q1 2022



Welcome to the first SSA Biostatistics and Bioinformatics (BnB) section newsletter for 2022. The world we live in today is one that asks us to see it through different lenses. The situation at the humanistic level with the war in Ukraine paints a dire picture of what power concentrated in one person can do. On the other hand, we see the efforts of better (real) humans come to light in trying to aid those in need.

The Covid pandemic has been put on the back burner for many state governments and for many media outlets too; on September 9 2021 in NSW (to pick one day/site) it was news to have ~1400 new cases. Today, with ~20,000 new cases, you can only find the number by purposely searching online. Once again, the translation of information ends up playing a bigger role than the actual measurement and creation of such information. Food for thought for our profession. Borrowing from the last newsletter "As much of the country faces higher numbers of cases and ignored uncertainty, it is important that we foster every opportunity for increased connection among biostatisticians and bioinformaticians across the country".

We can make life brighter, and on that aim, we are happy to share with you our first 2022 SSA BnB newsletter. The new committee has started to get on track, and we are looking forward to making this a great year for the section. We extend our gratitude to the committee members whose terms came to an end in December: Alysha De Livera, Nicole De La Mata, and Murthy Mithrithy who were amazing for the section and in helping with the transition to the new committee members. You may see that we have a "new" initiative of lunchtime seminars organised by the section, keep your eye out for news of these. Also be on the lookout for the new BnB banner that is currently in development!

Smiles to all.  
A.N.A on behalf of the SSA BnB committee

### COVID19 Webinar Feedback

The B&B Section hosted a workshop on the 30th March titled "COVID-19: Unexpected Opportunities and Lessons for Australia's Biostatistics, Bioinformatics and Epidemiological Community".

The speakers were

- **Prof Adrian Esterman**, Adrian is Chair of Biostatistics and Epidemiology at the University of South Australia, a position he has held for the past seventeen years. His career includes five years as a WHO staff member based in Geneva and two years as a staff member in the WHO European office in Copenhagen. He was for many years Principal Epidemiologist for the SA Department of Health until moving to academia.
- **Gideon Meyerowitz-Katz**, Gideon Meyerowitz-Katz is an epidemiologist working in public health in western Sydney, primarily chronic disease, and is completing his PhD with the University of Wollongong in diabetes epidemiology.

The session was extremely well attended, and we would love feedback from those who attended. Feel free to get in touch with our webinar coordinator [taya.collyer@monash.edu](mailto:taya.collyer@monash.edu)

Watch this space for more exciting Webinars and events each quarter organised by the B&B Section. Save the dates: June 29th, September 28th, December 14th.

### Careers Corner

#### Lecturer and Senior Lecturer - Biostatistics (University of Sydney)

- Two academic continuing positions (Lecturer and Senior Lecturer)
- Teaching and research in Biostatistics at the Sydney School of Public Health
- Full time (part time may be considered), continuing positions with a base salary ranging from \$110K p.a. - \$135K p.a. + 17% superannuation

Applications Close: Thursday 14 April 2022 11:59 PM  
For more information [click here](#)

#### Senior Postdoctoral Researcher - Bioinformatics (University of Sydney)

- Full time fixed term one year
- Opportunity to develop and conduct research as part of overall projects on behalf of the group Leader and senior postdoctoral scientists within the group
- Academic Level B, Base Salary \$110,856 - \$131,639 + 17% superannuation

Applications Close: Monday 18 April 2022 11:59 PM  
For more information [click here](#)

### Upcoming Events

**What's It Going to Take to Get Your Study Started? Pilot and Feasibility Studies**  
**Organisation:** MACH EMCR Research Design Webinar Series  
**Date:** 6th April

MACH (Melbourne Academic Centre for Health) is pleased to present a four-part webinar series exploring research design tailored specifically for early and mid-career researchers. The series will be conducted by experts from the University of Melbourne's Methods and Implementation Support for Clinical and Health research Hub (MISCH) team from February-June 2022.

**Linked Sensitive Data - a Beginners Guide**  
**Organisation:** Australian Sensitive Data Interest Group  
**Date:** 6th April  
**Time:** 12-1 AEST

Many of our life experiences, from the moment we are born until our death generate data that is collected and used for a range of purposes. For example, information is routinely collected when you go to school, visit a hospital, when you get married or when you have a baby. This data is collected by different organisations. This data is sensitive and if brought together (linked) can be a valuable tool for research. This presentation will include examples of linked data used for research, how data is routinely linked in Australia and how to access linked sensitive data.

About the speakers: Felicity Flack is the Manager, Policy and Client Services for Australia's national data linkage infrastructure, the Population Health Research Network. She has extensive experience in the development, coordination and operation of national data linkage systems particularly the navigation of cross-jurisdictional legislative, policy and ethical issues. She also has many years of experience in research ethics including working as a research ethics manager as well as being a member and Chair of a human research ethics committee. Felicity is a Churchill Fellow.

**WEBINAR: Protection of genomic data and the Australian Privacy Act: when is genomic data "personal information"?**

**Organisation:** Australian Bio Commons  
**Date:** 6th April  
**Time:** 12-1 AEST

Professor Mark Taylor explores the relationship between the legal concept of genetic information and the concept of genomic data relevant to health and medical research, reflect on the characteristics of each, and the possibility of more clearly identifying the legal rights and responsibilities which attach to the use and disclosure of genomic data in the future.

**Australian Bioinformatics and Computational Biology Society National Seminar Series**

**Date:** 19th April  
**Time:** 12-1 AEST

A graph-based approach to capture genetic patterns of progression in melanoma patients Dr. Ismael Vergara, Melanoma Institute Australia and

A multi-omics approach to understanding how the gut microbiota shape immune responses Dr. Ryan Feargal, SAHMRI

**CPD 129-Introduction to Machine Learning for Health Data**  
**Organisation:** Statistical Society of Australia  
**Date:** 12-13 May  
**Time:** 5pm AEDT

SSA is proudly offering this 2 day course with Presenter Dr Oscar Perez-Concha, Centre for Big Data Research in Health, UNSW Sydney. This workshop introduces the basics for understanding and using machine learning algorithms.

**XXXI International Biometric Conference (BC 2022) - external event**  
**Date:** 10-15 July

Radisson Blu Latvija Conference & Spa Hotel  
Riga, Latvia  
International Biometric Conferences have been sponsored by the International Biometric Society (IBS) since 1947 and represent one of the major activities of the IBS. The Society organises a major international conference every two years.

### Meet our mailing list



**Name:** Max Moldovan  
**Where do you currently work?** I have recently joined the University of Adelaide for an independent original research position, relocating from a Senior Data Scientist role I held for the last two and a half years in the South Australian Health and Medical Research Institute (SAHMRI). Having been with SAHMRI for over seven years overall, it's a big move for me, requiring some courage.

**What field do you associate with, biostatistics or bioinformatics (or both)?** The answer is both. My most recent Data Scientist title would probably describe what I do the best.

**What are your background studies in and how did you join this field?** My Bachelor was in Management Science, and my Master was in Economics and Financial Econometrics. I obtained my PhD in Statistics from the University of Melbourne. Immediately after, I joined the Walter and Eliza Hall Institute of Medical Research (WEHI) as a Bioinformatics Officer. This is how I've joined the Medical Research field.

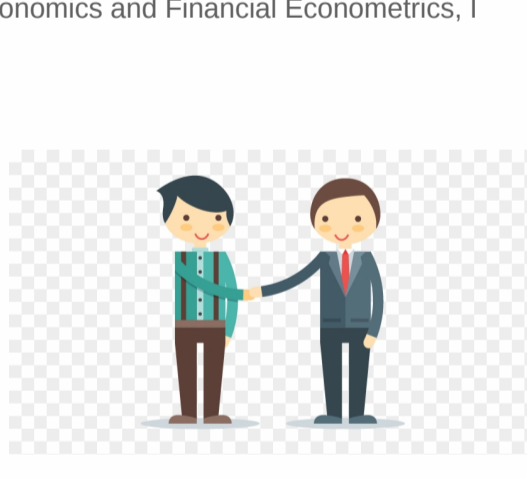
**Why did you want to work in this field?** My passion for discovery has brought me to the field. I have an almost supernatural intuition for the relevance of empirical patterns, and the ability to use a wide range of data analysis/visualisation/interpretation tools makes it feel at home within Life Sciences.

**What is the most exciting concept/idea upcoming in your work or field?** Establishing causality from retrospective and routinely collected datasets, in my view, is the next step along the functional medical discovery path. Talking causality, I mean causality in a sense beyond Mendelian Randomisation and "hypothesis-free" analyses. A sound theoretical concept is absolutely essential while looking at causal relationships.

**If you didn't pursue biostatistics and/or bioinformatics, what would have been your alternate career?** Giving my background in Economics and Financial Econometrics, I would most likely be a quant in a hedge fund.

**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 >500 readers. If interested, please let [Alberto Nettel-Aguirre](mailto:Alberto.Nettel-Aguirre) or [Nicola Armstrong](mailto:Nicola.Armstrong) know.



### Podcasts & Blogs



A range of biostatistics and bioinformatics blogs and podcasts have been listed in our [previous newsletters](#). Here we will be highlighting a couple of podcasts that might interest our mailing list readers.

#### Stats + Stories

2021 may not have been the year for conference travel, but that doesn't mean we can't stay connected. Alongside the Royal Statistical Society's annual conference, the Stats + Stories podcast has released a series of episodes including the role of statisticians in public engagement during the COVID-19 pandemic.



#### Biostats & Clinical Trial Design

In this episode of Learning Bayesian Statistics, Professor Frank Harrell shares his career journey as a biostatistician and the role of Bayesian modelling for making the most of data collected by clinical trials. You can listen to the episode [here](#).



#### CSIRO Transformational Bioinformatics

Keep up to date with the latest bioinformatics research from Australia's nation science and innovation agency. This [blog](#) includes posts on the latest scientific publications from the Transformational Bioinformatics group, including expert commentaries about proposed solutions and their impact on the field. The blog also regularly posts an explainer-series, covering aspects on cloud-based computing and its role in advancing genomics research.



#### Do you have a favourite statistical podcast or blog?

If you would be happy to provide a brief overview of your favourite statistical podcast or blog to feature on our mailing list, please contact [Kylie-Ann Mallitt](mailto:Kylie-Ann.Mallitt) with the details.

### Featured articles

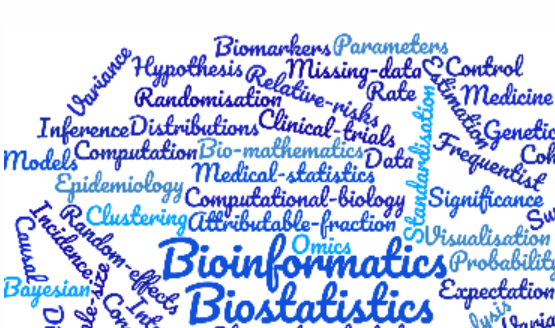
**An Introduction to Second-Generation p-Values.**  
Jeffrey D. Blume, Robert A. Greevy, Valerie F. Welch, Jeffrey R. Smith & William D. Dupont (2019), An Introduction to Second-Generation p-Values, *The American Statistician*, 73(sup1), 157-167

After the ASA Statement on p-values, many papers discussing their merits or defects have been published. One of the critiques to p-values is the use of them as a separator of whether data are informative of effects, even if departing from the dichotomy of "significant/non significant". In this paper Blume et al. discuss the issue that p-values are still based on one point hypothesis, while useful/practical information is most of the time based on a range of values that, for practical purposes, are equivalent. Not only is the discussion presented, they construct their Second Generation P-Values (SGPV) based on these interval hypotheses and as a way to address practical interpretability to "data supporting hypothesis". Their approach allows one to do without adjustments for multiple comparisons, among other rather nice qualities. The use of SGVP is illustrated in the analysis of snips associated with prostate cancer.

#### 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 [Nicola Armstrong](mailto:Nicola.Armstrong) with the details.

### Closing comments



Our Section is interested in biostatistics and bioinformatics and we are committed to assisting you with your career in these fields. We are interested in hearing from our members, especially regarding ideas for events, presentations, and/or workshops. We hope you enjoyed reading about upcoming events.

We hope all our members stay safe and well through the rest of 2022.

If your colleagues would like to receive this newsletter, they can sign up via [mallchimp](mailto:mallchimp)

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 on Facebook and Twitter! If you have any material you would like us to promote on our social media outlets or share with fellow members, please let [Kylie-Ann Mallitt](mailto:Kylie-Ann.Mallitt) or [Nicola White](mailto:Nicola.White) know.



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