

## Regional Newsletter, June 2014



## In this issue

DANIEL FAREWELL & MICHAEL SWEETING

Welcome to the June 2014 edition of the BIR newsletter. In addition to regular pieces from the BIR president and secretary, in this issue we meet our regional president-elect, John Matthews. There is a report from the recent meeting on Clinical Trials, and advance notice of upcoming society events. There are also requests for your feedback on a number of society matters, so do please get in touch with us. We wish you all a very pleasant summer!

## President's corner

SIMON THOMPSON

Some months ago, we organised a small survey of our newer members. The purpose was to ascertain their opinions on the activities and meetings of the British and Irish Region (BIR), and what might be done to increase their participation in these events. The survey was aimed at those who considered themselves "career-young", and some 62 members responded — we thank them for this.



The majority had joined BIR only in the last two years, with about half mentioning that they joined in order to attend a BIR or IBS event at a reduced cost. There were mixed responses on the virtues of a Facebook page or Twitter feed for BIR; nearly all received BIR information by email, and there was a view that social networking sites were more appropriate for personal than professional use. We asked what sort of organised social events for younger members might be organised by BIR or IBS

around their planned meetings. There was strong support for a drinks party or dinner especially for younger members. There were many other good individual suggestions made to an open question at the end of the survey, including making stronger links with the RSS Young Statisticians Section, involving younger members or PhD students in organising and promoting events, and aiming some events specifically at students.

So what is the BIR Committee planning to do in response to these opinions? First, we are trying to increase our visibility at the UK Research Students' Conference in Probability and Statistics, and at the UK Young Statisticians' Meeting. In particular, we hope that we can encourage more PhD students to join (which they can do for free) so that they will retain their membership and interest in BIR when they move into employment. Second, we are experimenting with providing more introductory sessions in the mornings for our usual half-day afternoon meetings. These introductory sessions are aimed at the career-young, but I guess many other people will find them useful too! Third, we will try to organise some drinks, informal lunches or dinners around these events, aimed exclusively at younger members. Lastly, we are keen to recruit a student member (as well as other younger members) onto the BIR Committee, so that the views of younger members can have a more direct influence on our activities. If you are keen to join the Committee in this capacity, we would be delighted to hear from you.

We would welcome feedback on these initiatives, as well as other suggestions you may have on how we can enhance the value and relevance of the BIR for younger members. Meanwhile, I wish all those attending the IBC in Florence an enjoyable and fruitful conference, and look forward to welcoming you to the BIR meetings planned for later this year.

## Clinical Trials: Past, Present & Glorious Future?

ROSEMARY DAHLQVIST & SHEILA BIRD

More than two hundred guests gathered at the John Snow Lecture Theatre, London School of Hygiene and



Tropical Medicine (LSHTM), and dedicated an afternoon to celebrating the history, achievements and challenges of randomized controlled trials. The meeting was the finale of a series that marked the centenary of the MRC Biostatistics Unit, and was jointly organized by the Royal Statistical Society (Medical Section), the International Biometric Society (British and Irish Region) and PSI (Statisticians in the Pharmaceutical Industry).



L-R: Linda Sharples, Stuart Pocock, Peter Armitage, David Spiegelhalter, Stephen Senn, Iain Chalmers, Vern Farewell, Sheila Bird (Photography: Rosemary Dahlqvist).

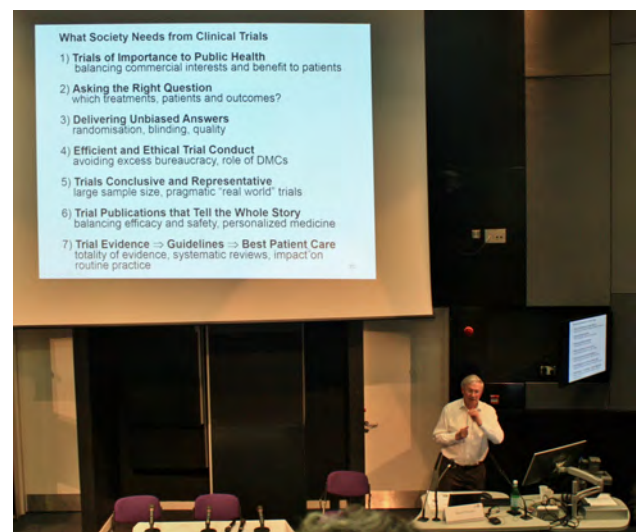
The “Clinical Trials: Past, Present & Glorious Future?” meeting saw an opening trio of talks – thoughtful, engaging and reflective – on Randomized Controlled Trials:

- Linda Sharples, with “Clinical trials are not enough”, explained how clinical trials are undoubtedly useful but when we want to make decisions about treatment policies they provide only partial information about the question of interest. This is the reason why combining clinical trials with other sources of observed or elicited information is necessary for a complete decision analysis but this involves further model assumptions.
- Stephen Senn, in his talk “Some are wise and some are otherwise: a defence of randomisation”, used his sense of humour to engage the audience and explained that “the only guarantees that randomisation brings are guarantees in probability but to assume that that makes it valueless is to make the same error as supposing it is not in a casino’s interest to have a fair roulette wheel”. Then he described how confusion regarding this has led many to overlook what should be obvious.
- David Spiegelhalter attempted to answer the question “Why aren’t all clinical trials Bayesian?”, taking ac-

count of the limited impact of Bayesian methods over the last 30 years. His quest led to another question: why should they be?

After a tea break, the audience heard from Sir Iain Chalmers about “UK Medical Research Council and Clinical Trials, 1934-1960” and how alternation between experimental and conventional treatment in the late 19th century had evolved into randomization. The seminal contribution was that of Bradford Hill, Medical Research Council’s Statistical Research Unit’s director, and his then-staff (including Peter Armitage, Richard Doll, Ian Sutherland, John Knowelden, Donald Reid) in the pioneering “British controlled trial”. However, Hill would himself also have acknowledged the important contributions of D’Arcy Hart and Marc Daniels, as did Iain and, from the audience, Dr David Hill, son of Austin Bradford Hill.

This opened the way for the delightful and memorable 3-way conversation between Vern Farewell, Peter Armitage and Iain Chalmers on Armitage’s way-in to biostatistics, how his work in sequential medical trials had come about and the key 1959 Vienna conference (under the chairmanship of Austin Bradford Hill) on controlled clinical trials.



Stuart Pocock delivers the 23rd Bradford Hill Memorial Lecture (Photography: Rosemary Dahlqvist).

The meeting concluded with the 23rd Bradford Hill Memorial Lecture, this year jointly organised by the BSU and the LSHTM. Stuart Pocock, LSHTM’s current Professor of Medical Statistics, offered a very engaging lecture on “Controversies, calamities and celebrations in clinical trials research”. He was introduced by Peter Armitage,





not only one of his predecessors as Professor of Medical Statistics at the School but also Pocock's PhD supervisor.

Pocock's lecture offered a critical review of clinical trials recent practice, focussing on examples in cardiology, and covering several controversies. He concluded that while there's much to celebrate in clinical trials research there is also definite room for improvement. Improvement was needed urgently in the European regulation of medical devices and also in how drug regulator authorities too-readily based licence-restrictions on specific subgroups.

The vote of thanks was proposed by Professor Sheila Bird of the MRC Biostatistics Unit — Stuart's first PhD student.

## Secretary's corner

SUE WELHAM

As is traditional at this time of year, I am making a plea for nominations for new members of the BIR Committee. Two places will become available from the AGM (14 November) and each position is elected for three years. The role requires attendance at two committee meetings per year (usually in April and October in London, but attendance can be by telephone) and active participation in the activities of the region, which can include organisation of scientific meetings (usually in collaboration with other committee members or societies) and wider promotion of the society among biometricians in all fields. If you are interested or require any further information, please [contact me](#) or any other member of the committee.

## IBC 2014, 6-11 July, Florence

The 27th IBC in Florence is fast approaching and with a packed scientific and social programme it is promising to be a great conference. For more details please visit <http://www.ibs-italy.info/ibc-2014.html>. We look forward to seeing you there. Arrivederci!

## IBC 2014 Bursaries

MARK BREWER

The British and Irish Region once again joined forces with the Fisher Memorial Trust (FMT) to offer bursaries to PhD students to support attendance at the International Biometric Conference, this year being held in Florence in July. Six awards of up to £250 were made via

a competitive application process. The six successful applicants this year were: Emily Dennis, Natoya Jourdain (both University of Kent); Markus Elze, Kirsty Hey (both University of Warwick); Anestis Touloumis (University of Cambridge); and Hannah Worthington (University of St Andrews). Thanks are due to Mike Kenward of the FMT for assisting with the assessment of the applications.

## By way of introduction...

JOHN MATTHEWS



*John Matthews, incoming president of the IBS-BIR*

I wasn't expecting anything special in my Inbox when I opened my email late one evening last September, but there was a message from James Carpenter asking me to stand as Simon Thompson's successor as President of the British & Irish Region. It was certainly not until well into the following day that the shock wore off. No professional medical statistician could fail to be both honoured and daunted by being asked to hold this office, when those who have gone before include the likes of Fisher, Yates and Bartlett. I did my PhD at LSH&TM with Michael Healy, followed by three years as a post-doc in Oxford with Peter Armitage before I moved to Newcastle University, where I have been an academic medical statistician since 1987, so I am squarely on the biostatistical wing of the Region. However, we are in a very exciting era for biometrical analyses of all kinds, and the scope for synergies between all the disciplines represented in the Region means that we should take full advantage of our diversity. The meeting on Big Data in September is one such initiative and I look forward to being associated with many more.



## Summer Meetings

SUE WELHAM



*Summer meetings: see you next year?*

The Region has traditionally held “Summer Meetings” at venues involved in quantitative biological research. In recent years, we have visited the Sport Science Department at Medway Park (2012), NUIG’s Aquaculture Research Facility near Galway (2011), the Royal Botanic Gardens in Edinburgh (2010) and Down House (home of Charles Darwin, 2009). All of these events have included high quality scientific meetings with talks from both biometricians and scientists involved in collecting and analysing data, but attendance has sometimes been low. Last July we hosted the Channel Network Conference in St Andrews and this July sees the IBC in Florence, so we have taken a break from our summer meeting tradition. Should we resume summer meetings next year? If you have ideas for a venue for a meeting next summer, or if you would like to host a meeting next summer, then please contact a committee member — we can give help and support in setting up the meeting and finding suitable speakers.

## Statistics for big data

The IBS-BIR will hold a meeting on the theme of “Big Data” on September 17 2014 in London. The aim is to bring together a set of researchers with applied and/or theoretical work in large scale dataset analysis. The meeting will try to highlight links and shared methodological challenges across different research areas. The four confirmed speakers for the afternoon are:

- Thore Graepel, Microsoft Research Cambridge: Analysis of data from social media, in particular “Facebook likes”
- Jaakko Peltonen, Aalto University, Helsinki: Large dataset visualisation and interactive search

- Thomas Thorne, University of Edinburgh: Analysis of large scale genomics datasets
- Finn Lindgren, University of Bath: Statistical methods for very large datasets

Registration costs (which include refreshments) are £25 for IBS members, £10 for IBS student or retired members (student membership of IBS is free), and £40 for non-IBS members. For membership information, visit <http://bir.biometricsociety.org/membership>.

The four talks will be held from 1.30pm in the Roberts Building Lecture Theatre, Room 106 on the UCL Main (Gower Street/Bloomsbury) Campus. The nearest underground stations are Euston Square, Warren Street or Russell Square (all within 5 minutes walk), while the closest overground stations are Euston (5 minutes walk) and Kings Cross (15 minutes). For directions to the Main Campus visit <http://www.ucl.ac.uk/maps>.

The lecture theatre is in the Roberts Engineering building, which is immediately on the left as you enter the South Entrance to campus at Malet Place, off Torrington Place, indicated by the red spot on [this map](#).

## About the speakers...



Thore Graepel is currently a principal researcher at Microsoft Research Cambridge leading the Online Services and Advertising and Applied Games group. His group’s work is focused on the application of large scale machine learning and probabilistic modelling techniques to a wide range of problems including online advertising, web search, and games. Particular interests are for the game of Go and the quest for developing a Go engine that plays as good as the best human players. More recently, he has been investigating crowdsourcing, collective intelligence and social networking data. <http://research.microsoft.com/en-us/people/thoreg/>

Jaakko Peltonen is an adjunct professor at Aalto University in the Department of Information and Computer Science, and also an associated professor of statistics at University of Tampere. Jaakko’s group research Statisti-





cal Machine Learning and Bioinformatics and interests include probabilistic generative and information-theoretic methods and formalisms such as information retrieval based dimensionality reduction, especially for application in visualization, clustering, and bioinformatics. In the past, Jaakko has also programmed computer games and is most well-known for a graphical interface for the computer role-playing game NetHack, called Falcon's Eye, as well as composing soundtrack music. <http://users.ics.aalto.fi/jtpelto/>

Thomas Thorne is currently a Chancellor's Fellow in the School of Informatics at the University of Edinburgh. His research interests focus on applications of statistical methodologies to problems in Systems Biology and Bioinformatics, including graphical modelling of gene regulatory networks, statistical analysis of protein-protein interaction networks, building flexible biological models using Bayesian nonparametrics and GPGPU methods for large scale inference. <http://homepages.inf.ed.ac.uk/tthorne/>

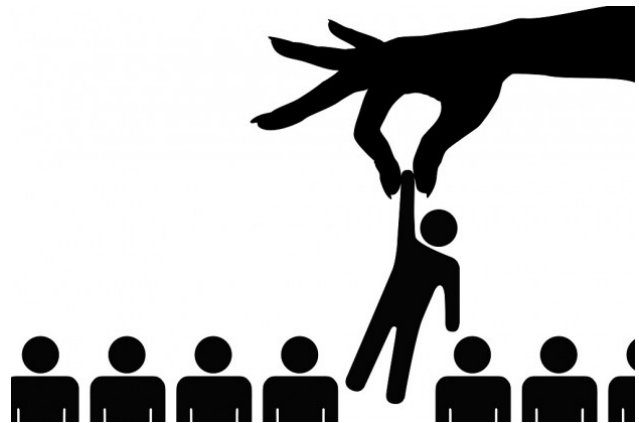
Finn Lindgren is a reader in Statistics at the Department of Mathematical Sciences, University of Bath. His research topics include computational statistical inference, spatial modelling, Bayesian hierarchical modelling, Gaussian Markov random fields and stochastic partial differential equations, while he is also interested in applications in climate modelling, ecology, general environmetrics and geostatistics. <http://people.bath.ac.uk/fl353/>

## Mendelian Randomisation: Past Success and Future Challenges

MICHAEL SWEETING

The IBS-BIR are pleased to announce a meeting on the topic of Mendelian Randomisation (MR) taking place on

Friday 14th November at the London School of Hygiene and Tropical Medicine. Professor Simon Thompson (University of Cambridge) will open the afternoon meeting with his Presidential Address and talk about extending the basic methods of MR. A number of distinguished researchers in the field of MR will then speak on its success over the past 10 years and the statistical challenges and controversies that remain. Speakers include Dr Vanessa Didelez (University of Bristol), Professor John Thompson (University of Leicester) and Professor George Davey-Smith (University of Bristol).



The meeting will be preceded in the morning by an introductory session on Instrumental Variables and MR to be given by Dr Richard Emsley (University of Manchester) and Dr Stephen Burgess (University of Cambridge). The morning session is specifically aimed at career-young researchers and students wishing to learn the basics of the MR approach, although all registrants are welcome to attend.

A full programme will be released shortly on the BIR website together with further information on how to register.





## International Biometric Society, British and Irish Region

RENEWAL OF MEMBERSHIP for ..... (name)

MEMBERSHIP CATEGORY: Please check

- FULL member ☐ (Annual Subscription 40 pounds sterling) Full benefits of the Society including electronic subscription to Biometrics, Journal of Agricultural, Biological, and Environmental Statistics (JABES) and the Biometric Bulletin, voting privileges and the right to hold elective office.
- RETIRED member ☐ (Annual Subscription 20 pounds sterling) All the rights of Full Membership. The retired category is open to anyone who has been a member for at least 10 years, and who is no longer in paid employment (working less than 0.2FTE).

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