Recently, at the International Agency for Research on Cancer, Lyon, France.

At the International Biometric Conference, Freiburg, Germany, 2002, as IBS President with unknown colleague.

could keep Norm from his mountains. We found a picnic spot and this time 5 of us stayed back while Norm went for a hike. Gayle packed a lunch for him in one of those little metal children's lunch boxes, and off he went. After several hours, about when we were getting a little grumpy, Norm descended, happy, and with a lunch box full of snow for his girls. This was quintessential Norm Breslow, mountaineer and family man.

At the Agency, Norm found a lifelong collaborator in Nick Day, and a lasting love of all things Provencal. As this was at the beginning of the computer age, computing facilities were limited in Lyon, but the World Health Organization (WHO) in Geneva, Switzerland had just purchased an IBM 360. For the 50th anniversary history of IARC Norm wrote a charming description of his typical day "at the office". He would rise at 5 am, pack up his punch cards with data and FORTRAN code,

catch a train at the Gare des Brotteaux in Lyon, have breakfast at the Gare Cornavin in Geneva, take a bus to WHO headquarters, spend all day feeding cards to the 360, and re-board the train to Lyon in the evening.

Norm's amazing and productive career that followed has been chronicled elsewhere, including his service to the profession. This latter is exemplified by his term as President of the International Biometric Society from 2002-2003, a period marked by a financial turn-around of the Society and some emergency service occasioned by another untimely death in the profession. For me, I can only say how lucky and privileged I was to have been his student and colleague, and for my family, how fortunate we are to be in the orbit of the Breslows.

*John Crowley, WNAR President, 1987

Software Corner

SAS and R: The eternal Odd Couple in statistical programming

In recent years, the choice of an adequate tool for data analysis has become one of the most debated topics among statisticians and programming communities. Statisticians and data analysts are looking for the best, fastest and most advanced statistical software.

In many cases, one package cannot cover all data analysis requirements. SAS and R are among the top 5 popular statistical programs used in the world. Each has its strengths and weaknesses some of which are addressed briefly below.

(a) Daily use and ease of learning

SAS is easy to learn and includes the SQL procedure for those who already know SQL. For data management SAS is preferred since it is a more database-like tool. R requires more learning since it is a programming language which requires understanding code similar to C/C++. However, it gives additional flexibility to perform a more customized script.

For example, consider the task of merging several tables into one table. Programming this task in R can be more challenging than programming it in SAS (using Proc SQL), since in R the code is longer. Both statistical tools offer a friendly graphical user interface.

(b) Availability of statistical procedures and advancements

SAS has a powerful set of packages which cover almost the whole scope of statistical methods. However, it does not include advanced procedures such as procedures from machine learning methodology. Since SAS is software that must be purchased, any new statistical method must be tested and accepted by the enterprise before being included in the next release of the software. Conversely, R is open source, and therefore users can develop their own methodology, write packages and upload it to the CRAN repository (which has been designed for that purpose) whenever they like so that other researchers can use it free of charge. Due to its open nature, R acquires the latest features more quickly. However, sometimes these packages can include some programming/methodological bugs that can lead to erroneous results.

(c) Customer service support and community

SAS outperforms R with regards to the support system. It provides extensive online help documentation and expert technical support with available contact names to consult with in case of a problem. R has the biggest online community but no customer service support. Although R has online documentation, it is not always updated in tandem with development, and users usually rely on what others have written about the code in the programming communities.

(d) Computational resources when dealing with huge data sets and complex statistical procedures

In the era of big data, one needs to analyze (un)structured information of sizes that can exceed one terabyte. These big data can be handled by both R and SAS. However, the two packages are different in the allocation of memory when analyzing *king size* data with small-medium capacity computers. For each step, SAS processes large databases reading and writing them to the hard disk of the computer whereas R loads the information into the main memory (RAM memory). Therefore when handling terabytes of data SAS is faster than R which is more likely to be out of memory. However, recently both packages have improved in their capabilities and options for parallel computations.

(e) Availability/Cost

R is open source software and free to use: it just needs to be downloaded from the website, installed on the computer and the program is ready to use. SAS, on the other hand, is commercial software and purchasing a single license is quite expensive for individuals. This could be a reason why R is rapidly gaining in popularity. R is more commonly used in academic institutions whereas SAS is commercially-oriented software and is used by some of the big organizations, even though Google and Microsoft have started to incorporate R in their Business Intelligence departments.

To summarize, much advice has been given on this topic. R has shown that it would be an appropriate choice with respect to availability and when using advanced statistical methodology. SAS seems to be more efficient in the handling of large datasets. As can be seen, there is a trade-off between the availability of modern statistical techniques and the efficiency in getting the results. From my point of view, young researchers should start learning R – in this way, they can improve their programming skills! For advanced users, a combination of both programs would possibly be the best option. I admit that I am an R-SAS or SAS-R user; I would not imagine a scientific world without any of them. SAS and R behave like Jack Lemmon and Walter Matthau in the *The Odd Couple:* they try to get along in spite of their differences. Now, you have the choice: SAS, R… or both?

Urko Aguirre Larracoechea **(Spanish Region)**

Region News

Australasian Region (AR)

Introducing AR incoming President, Samuel Müller

At the Australasian Region's AGM, Samuel Müller was elected President for 2017-18. Samuel writes… *It is a great honour to be able to serve the IBS-AR as the next President. As many of you do not know me personally, I will briefly introduce myself. I am currently an Associate Professor in the School of Mathematics and Statistics at the University of Sydney. I love statistics and its applications, the creativity and openness of my colleagues, and the social aspects that come with the collaborative nature of our profession. Currently my research is very diverse, from learning more from different 'omics platforms in improving the prediction of disease outcome of cancer; using regularisation methods to identify what microbes explain obesity; to more theoretical work on model selection in mixed models, generalised estimating equations or in studying the bootstrap for dimension reduction, to mention just some of my ongoing projects.*

Samuel Müller (University of Sydney), Incoming President of the Australasian Region (2017-18).

My vision for the Australasian Region of the IBS is that it is the natural networking and meeting platform for all with a passion for biometrics and its related fields. My three key objectives for the next four years are 1) to increase the standing of women in the society overall, 2) to increase the attractiveness of IBS-AR for mid-career researchers through recognition of their work, and 3) to increase the value of the society for early career professionals through mentoring and career development opportunities. These objectives build on the excellent work done by the current President, Ross Darnell and his predecessors.

E.A. Cornish Award Awardees 2015

Established in 2011, the *E.A. Cornish Award* is presented by the Australasian Region in recognition of a member's considerable contribution to biometry and the society. The award is named after Alf Cornish, the Region's first Vice-President and IBS President from 1956 to 1957. At the 2015 IBS-AR conference dinner in Hobart the two most recent awardees, Kaye Basford and Brian Cullis, were named. Congratulations!

Kaye Basford is Professor of Biometry in the School of Agriculture and Food Sciences, University of Queensland (UQ). She was President of the UQ Academic Board (2012-2014) and Head of the School of Land, Crop and Food Sciences (2001-2010), and has obtained an extensive publication record through research at the interface of applied statistics, quantitative genetics and plant breeding, co-authoring two books (McLachlan and Basford 1988, Basford and Tukey 1999) and supervising over 25 research higher degree graduates.