

Victorian Centre for Biostatistics**Seminar****Thursday 27th June****9.30am to 10.30am****Room 515, Level 5****Melbourne School of Population and Global Health****Melbourne University****207 Bouverie Street, Carlton****Design and Power Considerations for Cluster-Randomized Cross-over Designs (CRXO) with Bounded Discrete Endpoints****Associate Professor John Reynolds****Deakin University**

CRXO designs are not uncommon in public health research and bounded discrete endpoints, such as pain scales, are common. The justification of sample size (i.e. the number of clusters, periods and individuals) is generally based on power calculations that assume continuous-scale, normally-distributed, primary endpoints. In this talk, various approaches are reviewed and some simulation-based results are reported for the power of a conventional test procedure when it is “misapplied” to a bounded discrete endpoint.

John Reynolds joined the Faculty of Health at Deakin University in July last year as the Head of the new Biostatistics Unit. John has experience in the design, management and statistical analysis of clinical trials in oncology and experiments in the food and agricultural sciences. He previously held the position of Expert Statistician with Novartis Oncology, Basel, Switzerland and was the Lead Statistician for two new compounds (all indications) and two marketed compounds (in Chronic Myeloid Leukaemia). He was responsible for the quality of the work of a small team of biostatisticians and programmers located in Hyderabad and Paris, and liaised with clinical investigators located in Europe and the USA. Prior to working for Novartis, John was a Senior Statistician in, and Deputy Director of, the Centre for Biostatistics and Clinical Trials at the Peter MacCallum Cancer Centre (Peter Mac) in East Melbourne. As well as supporting research at Peter Mac, he was the Biostatistician for the Australasian Leukaemia and Lymphoma Group (ALLG). Before moving into oncology biostatistics, John was the Chief Biometrician in the Department of Natural Resources and Environment (NRE), Victoria.

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