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Notre Dame's Collaborative Research Network (CRN) and UWA School of Population Health Invites you to hear how:

Comparisons within randomised groups can be very misleading

Prof Martin Bland

Professor of Health Statistics, University of York, England

Abstract:
Rather than comparing the randomised groups in a clinical trial directly, researchers sometimes look at the change in the measurement between baseline and the end of the trial; they test whether there was a significant change from baseline, separately in each randomised group. They report that this difference is significant in one group but not in the other, and conclude that this is evidence that the groups, and hence the treatments, are different. Several examples will be given, including a recent trial which received wide publicity, in which participants were randomised to receive either an "anti-ageing" cream or a placebo. We will show by simulation and theoretically that this approach is fundamentally flawed and capable of giving alpha errors as high as 50%.

Prof Bland is the author of *An Introduction to Medical Statistics*, and co-author of *Statistical Questions in Evidence-based Medicine*, as well as more than 230 refereed journal articles. In 2007 Martin became an ISI Highly Cited Researcher, and in 2008 was awarded the Senior Investigator Award of the National Institute for Health Research. Martin is currently working on clinical trials in wound care, hazardous alcohol use, depression, irritable bowel syndrome, and stroke prevention.

Date: **Thursday 28th November 2013**
Time: **4.00 – 5.00 pm, with refreshments**
Venue: **UWA Boatshed,** (corner of Stirling Highway/Mounts Bay Rd, car park 23, Hackett Dr, Crawley, Nedlands)

RSVP to Hayley Coppinger for catering purposes
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The University of Notre Dame CRN project is supported through the Australian Government's Collaborative Research Networks program