### Quantitative Medicine Forum

**Title:**

“Overstating the Evidence – Double Counting in Meta-Analysis and Related Problems”

**Speaker:**

Prof Stephen Senn  
Professor for Statistics  
School of Mathematics and Statistics  
University of Glasgow

**Host:**

Dr. Tan Say Beng  
Associate Professor and Director  
Centre for Quantitative Medicine  
Duke-NUS Graduate Medical School  
Director, Biostatistics and Quantitative Epidemiology, SingHealth

**Date:**

Friday, 4 March 2011

**Time:**

12:00-1:00pm

**Venue:**

Duke-NUS Graduate Medical School Singapore  
Amphitheatre, Level 2  
8 College Road, Singapore 169857

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**Abstract:**

The problem of missing studies in meta-analysis has received much attention. Less attention has been paid to the more serious problem of double counting of evidence. Methods: Various problems in overstating the precision of results from meta-analyses are described and illustrated with examples, including papers from leading medical journals. These problems include, but are not limited to, simple double counting of the same studies, double counting of some aspects of the studies, inappropriate imputation of results, and assigning spurious precision to individual studies.

Some suggestions are made as to how the quality and reliability of meta-analysis can be improved. It is proposed that the key to quality in meta-analysis lies in the results being transparent and checkable.

Existing quality check lists for meta-analysis do little to encourage an appropriate attitude to combining evidence and to statistical analysis. Journals and other relevant organisations should encourage authors to make data available and make methods explicit. They should also act promptly to withdraw meta-analyses when mistakes are found.

**Biography:**

Originally from Switzerland, Stephen Senn has been Professor of Statistics at the University of Glasgow since 2003. He was Professor of Pharmaceutical and Health Statistics at University College London from 1995-2003. He has also worked in the Swiss pharmaceutical industry and for the National Health Service in England. He is the author of the monographs Cross-over Trials in Clinical Research (1993, 2002), Statistical Issues in Drug Development (1997, 2007), Dicing with Death (2003) and over 200 scientific publications. In 2001 Stephen Senn was the first recipient of the George C Challis award for Biostatistics of the University of Florida, in 2008 he gave the Bradford Hill lecture of the London School of Hygiene and Tropical Medicine and in 2009 was awarded the Bradford Hill medal of the Royal Statistical Society. He is a Fellow of the Royal Society of Edinburgh and an honorary life member of Statisticians in the Pharmaceutical Industry (PSI) and the International Society for Clinical Biostatistics.

*All are welcome to attend. No RSVP is required. Light refreshments will be served beginning at 11:45 outside the auditorium.*