Methodological approaches in clinical trials of biomarkers for personalising treatment of advanced cancers

Dr Chee Lee

When: Thursday 22nd March, 2012
3:30pm – 4:30pm

Where: Level 5 Training Room, Medical Foundation Building
92-94 Parramatta Road, Camperdown

Biography
Dr Lee is a staff specialist in medical oncology at St George Hospital and the Sutherland Hospital; and a visiting medical oncologist at St George Private Hospital. He also works as a research fellow at the National Health and Medical Research Council (NHMRC) Clinical Trials Centre at The University of Sydney. Dr Lee obtained his medical degree (with honours) from The University of Sydney in 2000.

He completed his clinical fellowship training in internal medicine and medical oncology at St George and Prince of Wales Hospitals, and is a fellow of the Royal Australasian College of Physicians (2009). He has a Masters degree in both in medical science (2004), and in biostatistics (2009).

In 2009, Dr Lee was awarded the National Breast Cancer Foundation doctoral scholarship to undertake his PhD at the NHMRC Clinical Trials Centre. His thesis, entitled “Methodological Approaches in Clinical Trials of Biomarkers for Personalising Treatment of Advanced Cancers”, has led to several publications in major oncology journals including the Journal of Clinical Oncology, British Journal of Cancer and the Journal of the National Cancer Institute.

Abstract:
This research examines the use of biomarkers in personalising cancer treatment for patients with advanced cancers. Biomarkers, in the broadest sense, refer to patient characteristics, psychometric factors, and molecular and genetic markers that can be measured and evaluated as indicators of normal or abnormal processes, or responses to anti-cancer treatments.

Using examples from trials in several advanced cancers—breast, ovary, colon and renal—various biomarkers were examined for their prognostic, predictive and surrogate values. Each example illustrates one or more important statistical, trial design and other methodological principles as well as providing new biological insights about these diseases and their optimal clinical management.