

**Report of February Meeting
Royal Society
Southern Highlands Branch**

**Speaker: Dr Anita Hoskins
 Garvan Institute**

Topic: Tomorrow's treatment for Cancer?

Dr Anita Hoskins was greeted by an audience of 50 when she arrived accompanied by the acting CEO of the Garvan Institute, Gabriella Lang, to address the February meeting of the Southern Highlands branch at 6.30pm on February 17th in the Drama Theatre, Frensham School, Mittagong.

Dr Hoskins' lecture focused on the latest developments in translational cancer research, particularly in the areas of breast and prostate cancer research. Translational research has transformed the way scientists research cancer today, driving new clinical therapies to reduce cancer incidence, morbidity and mortality. Research publications from the Garvan speak for the quality and quantity of medical research being conducted in the area of cancer and many other fields. Since 2005, research publications have numbered 995. In 2010 alone, scientists produced 195 publications.

The lecture described in detail the development and progression of cancer at the cellular level with particular emphasis on the Garvan's quest to find "Cancer's Achilles heel". Dr Hoskins discussed how targeted therapies are helping to deliver personalised medicine for all cancer patients, particularly in breast and prostate cancer sufferers. It was clear that as a result of these targeted therapies, the treatments of tomorrow will differ greatly from those in use now and in the past.

Sobering cancer statistics show that 1:2 men and 1:3 women will develop cancer during their lifetime, and that over 100 000 new cases were diagnosed in Australia in 2005. The number of new cases is projected to grow by over 3000 people per year. The rising incidence of cancer is largely due to increasing life expectancy in both males and females. In 2010, 1.5 million people worldwide were told that they had developed breast cancer.

Researchers into the ultimate goal of "personalised medicine" for cancer treatment through targeted therapies are currently facing problems on several fronts. These include the development of drug resistance, and the fact that these treatments do not work for all cancers or cancer subtypes. Examples of targeted therapies in use today include Trastuzumab (Herceptin) – breast cancer, Erbutix (Ceyuximab) – colorectal cancer, Imatinib (Gleevec) – chronic myeloid leukemia, Gefitinib (Iressa) – non-small cell lung

cancer, and PLX4032 – melanoma. Dr Hoskins said research must be aimed at identifying new targeted therapies and ways of identifying patients who will respond to those treatments. Incorporating a patient's molecular information, such as protein biomarkers in the blood or genes in tumours would be one way of guiding treatment decisions in such a personalised medicine approach.

Dr Hoskins concluded her lecture with comments on the significant progress that has been made in recent years in the treatment of breast and prostate cancer. Both now have 5-year survival rate exceeding 90%. She emphasised that we are in an age of discovery, and that the only way we will achieve personalised medicine will be through translational cancer research.

The audience showed their appreciation of the lecture through their wide-ranging questions, and their comments on the excellent presentation by Dr Hoskins. The vote of thanks was given by Anne Wood.

Anne Wood