

5<sup>th</sup> Asia-Pacific Summit on

# Cancer Therapy

July 20-22, 2015 Brisbane, Australia



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### Highly accurate and much earlier tests for cancer must save lives

Such tests have been established using low angle X-ray diffraction of hair, nails or skin for a number of cancers and other diseases. In all such tests a change, specific to the cancer or disease is superimposed on the pattern for control samples. The results for all such tests is a sensitivity of 100%, since there have been no false negatives and a specificity >99% since there are less than 1% false positives. These results are much higher than for any other test to date.

Since tests using transgenic mice have revealed that these tests can diagnose the relevant cancers and diseases much earlier than any other test, these false positives may not be false. Further to this should the cancer or disease be cured, the change disappears showing immediately whether the medical treatment has been successful. This talk will cover tests for prostate cancer and breast cancer. The results for prostate cancer indicate that this test can accurately determine whether the cancer is high or low grade and establish whether the cancer has invaded and by what method. The test for breast cancer accurately diagnoses all cancers but has different changes if the patient has a BRAC gene or not. Such tests can save lives

### Biography

Veronica J James completed her PhD in Physics from the University of NSW in 1971. Working in crystallography, she published 40 papers on the molecular structures of small organic crystals, before moving into the fibre diffraction studies of collagen and keratin. In this area she has carried out the diffraction study that produced the successful structure for hard  $\alpha$ -keratin and also pioneered the fibre diffraction diagnostic tests for breast, colon, prostate cancers and for Alzheimer's Disease. She was awarded an OAM for her Phones for the Deaf Program and her Advanced Physics Programs in 1996.

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