**Research Summary**

Fibre diffraction of hair can be used as a totally non-invasive screening test for breast cancer for women of all ages. *(with Professor John Kearsley [Cancer Care, St George Hospital, Sydney], Dr B.E. Willis [Eastmoreland Hospital, Portland Oregon], Dr Osmo Räsänen, [Breast Cancer Centre, Turku, Finland]*)

Fibre diffraction is able to diagnose the presence of these cancers at an earlier stage than any other cancer. *(with Dr Terry Robertson, Dr Alex Boyd and Professor John Papadimitriou, [Division of Pathology, School of Surgery and Pathology University of WA]*)

Fibre diffraction of hair can be used as a totally non-invasive screening test for colon cancer. *(with Dr Adrian Polyglase [Monash University Medical School, Victoria]*)

Fibre diffraction of hair can be used as a totally non-invasive screening test for liver cancer. *(with Dr Gary Abrams [University of Alabama, Birmingham], Dr Morris [St George Hospital, Sydney, NSW]*)

Fibre diffraction of hair may be used as a relatively inexpensive, non-invasive gene test. *(with Professor Rodney Scott [Molecular Genetics and Cytogenetics, Hunter Area Pathology Service, NSW]*)

Chemical Analysis to determine the origin of the change in the α-keratin structure of hair in breast cancer. *(with Dr Gary Corino [CSIRO Fibre Technology, Geelong, Victoria]*)

Fibre diffraction of hair can be used as a totally non-invasive screening test for Alzheimer's Disease. *(with Dr Terry Robertson and Professor John Papadimitriou [Division of Pathology, School of Surgery and Pathology University of WA]*)