



**Translational Program Grants
2005- 2008**

Translational Program Grants

Commencing January 2007

Grant: Use of proteomic analysis to improve the management of colorectal cancer (CRC).

Description: This grant aims to improve the management of colorectal cancer (CRC), one of the most common cancers in NSW by incorporating the use of proteomics. Proteomics measures alterations in proteins in disease in a similar way to which genomics assesses changes in genes. This program will be located in: ANZAC Research Institute, APAF, St. Vincent's/Garvan Institute of Medical Research, RPAH

The Program Grant was awarded to:

Administering Institute : ANZAC Research Institute

Research Institute: ANZAC Research Institute, Australian Proteome Analysis Facility, Macquarie & Sydney University Nodes, St. Vincent's/Garvan Institute of Medical Research, Royal Prince Alfred Hospital

Chief Investigators:

- **Prof Stephen Clarke**, The University of Sydney, Sydney Cancer Centre, SSWAHS
- **Prof Elie Leslie Bokey**, The University of Sydney, Concord Hospital, SSWAHS
- **Professor Mark Baker**, Australian Proteome Facility, Macquarie University
- **Dr Mark Molloy**, Australian Proteome Facility, Macquarie University
- **Dr Matthew McKay**, Australian Proteome Facility, Macquarie University
- **A/Prof Pierre Chapuis**, The University of Sydney, SSWAHS
- **Dr Lisa Horvath**, Sydney Cancer Centre, SSWAHS, Garvan Institute of Medical Research
- **Dr Betty Lin**, Department of Anatomical Pathology, Concord Hospital, SSWAHS
- **Dr Charles Chan**, Department of Anatomical Pathology, Concord Hospital, SSWAHS
- **Dr Maija Kohonen-Corish**, Garvan Institute of Medical Research
- **A/Prof Graham Robertson**, Concord Hospital
- **Dr Philip Beale**, Sydney Cancer Centre, SSWAHS
- **Prof Richard I Christopherson**, The University of Sydney, School of Molecular & Microbial Biosciences
- **Prof C Soon Lee**, Royal Prince Alfred Hospital, Department of Anatomical Pathology
- **Dr Angela M Hong**, Royal Prince Alfred Hospital, Department of Radiation Oncology
- **Prof Michael J Solomon**, Royal Prince Alfred Hospital, SOURCE.

Grant Reference: 06/TPG/1-02

\$3,745,500 over 5 years

Grant: Anti-mitochondrial cancer drugs.

Description: This grant is awarded to aid in the production of a unique class of synthetic organoarsenical compounds that can be used to treat cancer. They target the power supply of cancer or cancer supporting cells by disrupting their mitochondria. The compounds are protected by a suite of national phase patents and our most advanced drug (GSAO) will be tested in a 'first in man' clinical trial in cancer patients early in 2007 in the United Kingdom. The goal is to capture the field of anti-mitochondrial cancer drug development and to lead the world in its application. This funding will support preclinical and clinical testing of an analogue of GSAO called PENAO, and establish a high-throughput screen for new drugs that target cancer cell mitochondria. This research will be located in the Centre for Vascular Research and School of Biotechnology and Biomolecular Science, University of NSW

The Program Grant was awarded to:

Administering Institute: University of NSW

Research Institute: University of NSW, Consortium for Rational Cancer Therapeutics, Children's cancer Institute Australia

Chief Investigators:

- **Prof. Philip Hogg**, University of New South Wales
- **Prof. Robyn Ward**, St. Vincent's Hospital
- **Prof. Ian Dawes**, University of New South Wales
- **Dr. Richard Lock**, Children's Cancer Institute Australia
- **Dr. Paul de Souza**, St George Hospital

Grant Reference: 06/TPG/1-03

\$3,747,812 over 5 years

Grant: Novel gene-targeted therapies for basal cell carcinoma.

Description: This funding will develop novel, gene-specific inhibitors of BCC, using an extensive and unique range of in vitro and in vivo model systems, for pre-clinical and clinical evaluation toward improving therapeutic outcomes in Basal cell carcinoma patients. BCC is the most common malignant skin neoplasm. Australia has the highest rate of BCC in the world and its incidence is increasing at a rate of 5% annually. There is an acute need for alternative strategies to treat these cancers particularly as the population ages and current treatment modalities are not sufficient. Molecular-targeted therapy (i.e. targeting critical genes in cancer cells) has the potential of being more effective and less toxic than current chemotherapeutic regimens and less disfiguring than surgery, particularly for patients with multiple facial malignancies. This research will be located in the Centre for Vascular Research and School of Biotechnology and Biomolecular Science, University of NSW

The Program Grant was awarded to:

Administering Institute: University of NSW

Research Institute: University of NSW, University of Sydney

Chief Investigators:

- **Prof Levon Khachigian**, Centre for Vascular Research, UNSW and Department of Haematology, Prince of Wales Hospital, Sydney
- **Prof Ross Barnetson**, Melanoma and Skin Cancer Research Institute, University of Sydney
- **Prof Gary Halliday**, Melanoma and Skin Cancer Research Institute, University of Sydney
- **Prof Colin Chesterman**, Centre for Vascular Research, UNSW and Department of Haematology, Prince of Wales Hospital, Sydney.

Grant Reference: 06/TPG/1-04

\$2,957,349 over 5 years

Commencing in 2005

Grant: Sydney Melanoma Unit Translational Research Program

Description: A multi-disciplinary team of high calibre researchers have been wholly or partly responsible for some of the most important developments in diagnosis and treatment of Melanoma including the genetic causes of Melanoma through a collaborative work spanning many countries. This program aims to support two major lines of work with immediate relevance to melanoma care. First, a clinic dedicated to the surveillance of people at very high risk of melanoma will be established and used to test the performance of current best practice techniques in skin examination and the evaluation of

suspicious moles. It will also assess how and when genetic testing should be considered and will specifically study the psychological consequences of being at high risk of melanoma and having a genetic test. The second major aim is to make use of new technologies for studying gene expression (usage) in melanoma. It is clear that apparently similar melanomas can have different behaviours according to which genes are in use, but these studies have not yet been properly linked to patients and their course with the disease.

The Program Grant was awarded to:

Administering Institute: The University of Sydney

Research Institute: The Sydney Melanoma Unit Translational Facility

Chief Investigators:

- **Dr Graham Mann**, Westmead Millennium Institute;
- **Prof John Thompson**, Sydney Melanoma Unit;
- **Prof Richard Kefford**, Westmead Hospital;
- **Dr Richard Scolyer**, Royal Prince Alfred Hospital;
- **A/Prof Scott Menzies**, Sydney Melanoma Diagnostic Centre, Sydney Cancer Centre.

Grant Reference: 05/TPG/1-01

\$3,750,000 over 5 years

Grant: Molecular targeted therapy: pathways to drug discovery.

Description: Despite advances in multi-agent chemotherapy, cancer remains a major cause of mortality in our community. However, molecular-targeted therapy (i.e targeting critical genes in cancer cells) has the potential of being more effective and less toxic than current chemotherapeutic regimens. In this regard, one of the most exciting new approaches to the identification of potential new pharmaceutical agents is the high-throughput screening of small molecule chemical libraries. This Program represents a combined approach aimed firstly at defining novel molecular targets in specific pathways required by the cancer cell, and, secondly, using this information to design and isolate small molecule inhibitors of these targets. The entire Program is focussed on the development of new clinical tools to improve the therapeutic outcome of cancer patients. Current and ongoing affiliations with major national and international paediatric oncology clinical trials groups will help facilitate the translation of preclinical research directly into the clinic.

The Program Grant was awarded to:

Administering Institute: The University of New South Wales

Research Institute: Children's Cancer Institute Australia for Medical Research

Chief Investigators:

- **A/Prof Glenn Marshall**, Children's Cancer Institute Australia for Medical Research,
- **A/Prof Murray Norris**, Children's Cancer Institute Australia for Medical Research,
- **Prof Michelle Haber**, Children's Cancer Institute Australia for Medical Research.

Grant Reference: 05/TPG/1-03

\$3,383,211 over 5 years

Grant: Identification and validation of molecular markers of prognosis and therapeutic responsiveness in prostate cancer.

Description: This grant was awarded to a collaboration of multi-disciplinary, multi-institutional researchers to establish a systematic pipeline that will allow the efficient translation of biomarker discoveries in Prostate Cancer to phase III clinical confirmatory analysis.

This program is designed to address two of the most important clinical questions in prostate cancer treatment both of which incorporate the concept of tailoring treatment to the individual patient. First, the ability to predict which patients with localised PC are at highest risk of developing metastatic disease and require aggressive therapy (i.e. radical prostatectomy +/- adjuvant therapy); and secondly, the ability to predict which patients with hormone-refractory metastatic disease will respond to current chemotherapeutics.

The Program Grant was awarded to:

Administering Institute: Garvan Institute of Medical Research

Research Institute: Garvan Institute of Medical Research

Chief Investigators:

- **Associate Professor Susan Clark** , Garvan Institute of Medical Research;
- **Dr Susan Henshall** , Garvan Institute of Medical Research;
- **Professor Pam Russell** , Oncology Research centre, Prince of Wales Hospital;
- **Dr Lisa Horvath**, Sydney Cancer Centre, Royal Prince Alfred Hospital;
- **Professor Robert Sutherland**, Garvan Institute of Medical Research;
- **Dr James Kench**, Institute of Clinical Pathology and Medical Research, Westmead Hospital;
- **Professor C-Soon Lee**, Central Sydney Laboratory Service, Royal Prince Alfred Hospital;
- **Dr Peter Molloy**, CSIRO Molecular Science;
- **Associate Professor John Grygiel**, Department of Medical Oncology, St. Vincent's Hospital;
- **Associate Professor Phillip Stricker**, Department of Urology, St. Vincent's Hospital;
- **Associate Professor Michael Boyer**, Sydney Cancer Centre, Royal Prince Alfred Hospital.

Grant Reference: 04/TPG/1-07

\$3,750,000 over 5 years
