Seminar Program

Director's Lecture Series

Professor Michael Good

Professor David Penington

Professor Leroy Hood

Professor Michael Good

Professor Michael Good is a longstanding colleague and friend. Following outstanding PhD studies with Professor Gus Nossal from 1980 to 1983 and postdoctoral studies at the US National Institutes of Health, Michael joined the Queensland Institute of Medical Research, leading a major program in malaria research. He has been a frequent collaborator over the ensuing years, particularly in his role as the Director of the CRC for Vaccine Technology. We were most delighted, therefore, when he was appointed the Director of QIMR in 2000, following the retirement of Professor Laurie Powell. It was a special pleasure to welcome him as our special Guest Lecturer on 12 July 2000 to share his vision for "Vaccine research and other exciting challenges at the Queensland Institute of Medical Research".

Professor David Penington

The medical research community should be better informed about the increasing problems with drug addiction in our community. It was therefore a great privilege to have Professor David Penington, former Vice-Chancellor of The University of Melbourne, to speak to us about this important issue on 6 July 2000. Professor Penington has spearheaded several key enquiries about drug addiction and advised successive Victorian Governments about policies aimed at reducing the impact of illicit drugs on both individuals and society, fearlessly calling for radical new solutions. His memorable lecture, "The enigma of public policy on illicit drugs", was both moving and immensely challenging.

Professor Leroy Hood

It was an honour to host the visit on 14 May 2001 of Professor Leroy Hood, Director of The Institute for Systems Biology in Seattle. Professor Hood, a member of our Scientific Advisory Council, is recognised as one of the world's leading scientists in molecular immunology, genomics, proteomics and biotechnology. He was in Melbourne to give a lecture in the Alfred Deakin Lecture Series organised by the Melbourne Festival. Professor Hood spent a day meeting with our scientists and spoke to a capacity audience about his vision for a systems approach to biology in the 21st century. His new Institute brings together biologists, chemists, engineers, computer scientists and applied physicists to tackle major issues in biological research, a cross-disciplinary approach we are seeking to nurture here at the Institute and in Bio21.

Institute Seminars

2000-2001 Institute Speakers

Professor Don Metcalf
Cancer and Haematology Division
SOCS-1 protects the body from fatal interferon-dependent T-lymphocyte and macrophage autoaggression (7/00)

Dr Yacine Laabi
Molecular Genetics of Cancer Division
The genetic rearrangement provoking haemopoietic lineage deviation in Max41 mice (7/00)

Dr David Vaux
Molecular Genetics of Cancer Division
BIRps after lunch (7/00)

Dr Emanuela Handman
Infection and Immunity Division
Virulence factors in Leishmania (8/00)

Professor Ian Wicks
Reid Rheumatology Laboratory
Molecular targets in human disease – the case of TNF in rheumatoid arthritis (8/00)

Dr Jose Villadangos
Immunology Division
Control of antigen presentation in dendritic cells: roles of proteolysis and protein trafficking (8/00)

Dr David Tarlinton
Immunology Division
Treading the tightrope of tolerance: lose your balance and lose the lot (8/00)

Dr Steve Gerondakis
Immunology Division
Rel/NFκB and oncogenesis (9/00)

Ms Anita Holdsworth
Genetics and Bioinformatics Group
Battling a weighty problem: identifying genes which regulate body weight (9/00)

Dr Elizabeth Coulson
Development and Neurobiology Group
How Chopper kills – p75NTR and neuronal cell death (9/00)

Dr Stèphane Vandenabeele
Immunology Division
Human dendritic cell populations and their markers (10/00)

Dr Jacqui Montgomery
Infection and Immunity Division
Leishmania major proteophosphoglycans: investigation of a complex multigene family (10/00)

Dr Anne Verhagen
Molecular Genetics of Cancer Division
The little devil of death (11/00)

Dr Michael Reed
Infection and Immunity Division
Erythrocyte binding antigens and *Plasmodium falciparum* invasion – a targeted approach (11/00)

Dr Andy Villunger
Molecular Genetics of Cancer Division
Regulation of haematopoietic cell death – Fas, JNK, Bcl-2 and whatever else matters (11/00)

Ms Marina Carpinelli
CRC for Cellular Growth Factors
Skeletons in the mutagenesis closet (12/00)

Professor Ken Shortman
Immunology Division
How to get it all wrong and still learn about dendritic cells (2/01)

Dr Li Wu
Immunology Division
T lymphocyte development (3/01)

Dr David Tarlinton
Immunology Division
B lymphocyte development and function (3/01)

Dr Warren Alexander
Cancer and Haematology Division
Development and function of myeloid cells (3/01)

Ms Vanessa Marsden
Molecular Genetics of Cancer Division
The search for the true initiator caspase (3/01)

Dr Brendan Crabb
Infection and Immunity Division
Functional and immunological insights into *P falciparum* MSP-1: A leading malaria vaccine candidate (4/01)

Professor Peter Colman
Biomolecular Research Institute/WEHI
Three-dimensional immunology (4/01)

Dr Lorraine Robb
Cancer and Haematology Division
Interleukin 11 and female fertility (4/01)

Dr Emanuela Handman
Infection and Immunity Division
Immune responses to parasitic infections (4/01)

Dr Doug Hilton
Cancer and Haematology Division and The Cooperative Research Center for Cytokine Signalling
SOCS Box Proteins – From a single negative regulator of cytokine signalling to dozens of E3 ubiquitin ligases? (3/01)

Dr Tom Brodnicki
Genetics and Bioinformatics Division
Genomic analysis of the immune system (5/01)

Dr Lynn Corcoran
Immunology Division
Control of the immune system by transcription factors (5/01)

Dr Tom Kay
Autoimmunity and Transplantation Group
Autoimmune diseases (5/01)

Dr Arun Kamath
Immunology Division
Dendritic cells: Lessons from lifespans (5/01)

Dr Hamsa Puthalakath
Molecular Genetics of Cancer Division
BMF: A new BH3 only protein and its regulation by myosin V motor complex (5/01)

Dr Phillipe Bouillet
Molecular Genetics of Cancer Division
Inactivation of bim prevents the consequences of the loss of Bcl-2 (5/01)

Dr Grant Morahan
Genetics of Bioinformatics Group
Evidence for IL12B as a type 1 diabetes susceptibility gene and for its role in human evolution (5/01)

Dr Stephen Nutt
Immunology Division
Multiple roles of FGF signalling during Xenopus gastrulation (5/01)

Ms Rachel Richardson
Cancer and Haematology Division
Characterisation of the WSBs, members of the SOCS family of proteins (5/01)

Dr Gary Myers
Australian Genome Research Facility
Microarray resources at the AGRF (6/01)

Mr Ben Croker
Cancer and Haematology Division
Rac2, the haemopoietic-specific GTPase, is required for multiple lymphocyte functions (6/01)

Dr Ray Norton
Structural Biology Division
Protein NMR: Structure, function and structural genomics (6/01)

Dr Manuel Baca
Cancer and Haematology Division
Exploring the SH2 domain specificity of the SOCS protein: Finding the shoe that fits (6/01)

2000-2001 Visiting Speakers

Professor David Penington AC
Chairman, Drug Advisory Council of Victoria
The enigma of public policy on illicit drugs (7/00)

Professor Jack Marchalonis
Department of Microbiology and Immunology, University of Arizona, USA
Of sharks and men (7/00)

Professor Michael Good
Queensland Institute of Medical Research
Vaccine research and other exciting challenges at the Queensland Institute of Medical Research (7/00)

Professor Glenys Thomson
Department of Integrative Biology, University of California, USA
HLA population genetics and disease studies (7/00)

Dr David Sacks
Laboratory of Parasitic Diseases, The National Institutes of Health, USA
Re-examination of murine models of cutaeneous leishmaniasis in the context of sandfly transmitted infections (7/00)

Dr Regina Rabinovich
Director, The Malaria Vaccine Initiative of the Gates Foundation, USA
MVI: Strategic Approaches (7/00)

Dr Teresa Gunn
Stanford University, USA
The role of Mahogany/Attractin in pigmentation and body weight regulation (7/00)

Dr Michael Halford
Angiogenesis Laboratory, Ludwig Institute of Cancer Research, Melbourne
Defective craniofacial development and Eph receptor crosstalk in RYK-deficient mice (8/00)

Dr Bernard Callus
Dana Faber Cancer Institute, USA
The regulation of JAK/STAT signalling and the function(s) of Drosophila SOCS (8/00)

Dr Robyn Slattery
The John Curtin School of Medical Research, Australian National University, Canberra
Role of -2m/Class I MHC in IDDM (8/00)

Bill Pickering
FB Rice & Co, Patent Attorneys, Melbourne
Patenting in the biological sciences (9/00)

Kennith Brasel
Associate Staff Scientist, Immunex, Immunobiology Group, Seattle, USA
Generation of murine dendritic cells from Flt3 ligand supplemented bone marrow cultures (9/00)

Dr Richard Stanley
Yeshiva University, Albert Einstein College of Medicine, New York
Regulation of macrophages by CSF-1 (9/00)

Dr Peter Currie
MRC, Human Genetics Unit, Western General Hospital, Edinburgh, Scotland
Hedgehog signalling (10/00)

Dr Jean-Laurent Casanova
Hopital Necker, Paris, France
Mendelian susceptibility to mycobacterial infection: defects of IL-12-dependent IFNγ-mediated immunity (10/00)

Professor David Williams
Howard Hughes Medical Institute, Indiana University School of Medicine, USA
The Rho GTPase, Rac2, plays a unique role in haematopoietic cell function and survival (10/00)

Professor Harvey Lodish
Whitehead Institute for Biomedical Research, USA
Signaling by the erythroproietin receptor (10/00)

Dr Andrew Sinclair
Murdoch Childrens Research Institute, Melbourne
New genes for boys (10/00)

Dr Phil Hodgkin
Centenary Institute of Cancer Medicine and Cell Biology, Sydney
Resolving immunological contradictions with the cellular calculus (10/00)

Dr John Kickman
Institut de Recherches Servier, Paris, France
Initiation of sequential conformational changes in Bak and Bax proteins by cellular damage signals (10/00)

Dr Nancy Hynes
The Frederick Miescher Institute, Basel, Switzerland
The EGF family of receptor tyrosine kinases: a signalling network with an important role in breast cancer (10/00)

Dr Ruben Baler
Laboratory of Molecular and Cellular Regulation, National Institute of Mental Health, Bethesda, Maryland, USA
Transgenic knock-down of the fos-related antigen-2 in the rat pineal gland (11/00)

Grace Wong
Director of Reproductive Genomics, Head of Functional Genomics, Serono Reproductive Biology Institute, USA
Identification of cytokines and hormones inducible anti-apoptotic genes by oligo and cDNA microarrays (11/00)

Professor Richard Simpson
Joint Protein Structure Laboratory, Ludwig Institute for Cancer Research, Melbourne
Proteomics; emerging opportunities for the post-genome era (11/00)

Professor Gerry Melino
University of Rome, Italy
More rooms at the p53 inn: activity of p73 (11/00)

Dr Frederic de Sauvage
Genentech Inc., USA
Vertebrate hedgehog signal transduction (11/00)

Dr Adam Hart
Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada
The Fli-1 transcription factor is required for megakaryopoiesis and endothelial development and is hemizygously deleted in patients with thrombocytopenia (11/00)

Dr Ian Clark
Division of Biochemistry and Molecular Biology, Australian National University, Canberra
Malaria and sepsis as examples of systemic inflammatory disease (11/00)

Professor Georges Grau
Department of Physiology, Universitè de la Mèditerranè, France
Immunopathological mechanisms of the neurovascular lesion in cerebral malaria: experimental and clinical data (11/00)

Dr Terry Mulhern
Department of Biochemistry and Molecular Biology, University of Melbourne
ATM out of service: DNA damage repair and the protein mutated in ataxia telangiectasia (12/00)

Professor Jack Gauldie
Professor and Chairman, Department of Pathology and Molecular Medicine, McMaster University, Canada
Dendritic Cell Vaccines for anti-tumour and anti-self responses (12/00)

Dr Robert Anderson
Research Fellow, Nuffield Department of Medicine, Oxford, UK
A single transglutaminase-modified peptide is the dominant A-gliadin T-cell epitope in coeliac disease (12/00)

Dr Pamela Stanley
Albert Einstein College of Medicine, New York, USA
Glycan functions in development, cancer and *Notch* signalling (12/00)

Dr Penelope Brockie
Department of Biology, University of Utah, Salt Lake City, USA
Genetic analysis of glutamate receptors in *C elegans*. How do worms regulate their movement? (12/00)

Professor John F Kearney
Professor of Microbiology, University of Alabama at Birmingham, USA
Divergent functions of the isoforms of terminal deoxynucleotidyl transferase (12/00)

Dr Ruth Kluck
La Jolla Institute for Allergy and Immunology, San Diego, California, USA
Role of mitochondria and cytochrome c in apoptosis (1/01)

Professor Stefan Thor
Assistant Professor of Neurobiology, Harvard Medical School, USA
Specification of neuronal identities in the Drosophila nerve cord (1/01)

Dr Michael Karin
University of Pharmacology, University of California, San Diego, USA
I regulation of NF-B dependent and independent functions (2/01)

Dr Andrew L Mellor
Associate Director, Institute of Molecular Medicine and Genetics, and Chief, Program in Molecular Immunology, Medical College of Georgia, USA
Tryptophan: Fuelling the fires of T cell dependent immunity (2/01)

Dr Geoff Hill
Mater Medical Research Institute, Brisbane
Cytokine dysregulation in graft-versus-host disease: Implications for GVL and vaccine responses (2/01)

Professor Robert Eisenman
Member, Division of Basic Sciences, American Cancer Society Research Professor, Fred Hutchinson Cancer Research Center, USA
Mad about repression (2/01)

Dr Karsten Buschard
Bartholin Instituttet, Copenhagen, Denmark
Sulfatide – a beta-cell glycosphingolipid with several functions including a chaperone action on insulin (2/01)

Dr Peter Stock
Associate Professor of Surgery, University of California, San Francisco, USA
Beta cell replacement – pancreas transplant vs. islet cell (3/01)

Dr Matthias von Herrath
Scripps Clinic, La Jolla, California, USA
Regulatory properties of lymphocytes and APCs in a model for type I diabetes (3/01)

Professor Anne Kelso
Queensland Institute of Medical Research
T lymphocyte function (3/01)

Professor James Darnell
The Rockefeller University, USA
STATS: Transcriptional regulation and biological impact (3/01)

Dr Ken Winkel
Director, Australian Venom Research Unit, Melbourne
Venomous creatures at WEHI – Charles Kellaway and Neil Hamilton Fairley (4/01)

Dr Michael De Veer
The Learner Research Institute, Cleveland, Ohio, USA
The role of interferon and dsRNA responsive pathways in activation of the innate immune response (4/01)

Professor Robyn O'Hehir
The Alfred Hospital, Melbourne
The immunology of allergic reactions (4/01)

Professor Peter Doherty
St Judes Childrens Research Hospital, Memphis, Tennessee, USA
Immune responses to viruses (4/01)

Dr Theo Hagg
Associate Professor, Department of Anatomy and Neurobiology, Dalhousie University, Halifax, Canada
Neurotrophic factor-based strategies for neural repair (4/01)

Professor Nagata
Osaka University, Japan
Breakdown of chromosomal DNA during apoptosis and another developmental process (4/01)

Professor Suzanne Crowe
Monash Medical School, Alfred Hospital
HIV and the immune system (5/01)

Professor Leroy Hood
President and Director of the Institute for Systems Biology, Seattle, Washington, USA
Integrating genomics and proteomics for systems biology (5/01)

Professor Leroy Hood
President and Director of the Institute for Systems Biology, Seattle, Washington, USA
The adventures of an American scientist in K-12 science education (5/01)

Dr Carina Dennis
Senior Editor, Nature, *Washington DC, USA*
How to get published in *Nature* (5/01)

Dr Sarah Ogilvy
The Babraham Institute, Babraham, UK
Attempts to identify the functions of different CD45 isoforms (6/01)

Charles R Cantor
Chairman, SEQUENOM's Scientific Advisory Board, San Diego, USA
New genome strategies will find the genes responsible for major human diseases (6/01)