

2012

ANNUAL REPORT





MISSION

The Asbestos Diseases Research Institute aims to improve the diagnosis and treatment of asbestos-related diseases and at the same time to contribute to more effective measures to prevent exposure to asbestos.



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OVERVIEW

WHO WE ARE

The Asbestos Diseases Research Institute (ADRI) is the first stand-alone research institute tackling the still increasing epidemic of asbestos-related diseases. The ADRI was established by the Asbestos Diseases Research Foundation (ADRF), a charitable, not-for-profit organisation. The ADRI located in the ADRF's Bernie Banton Centre on the Concord Hospital campus which was officially opened in January 2009 by the then Prime Minister, the Hon. Kevin Rudd.



WHAT WE DO

The ADRI's primary objective is to make asbestos-related disease history, and to provide a better future for all those Australians unfortunately exposed to asbestos.

KEY STATISTICS

Australia is among the countries with the highest incidence of asbestos cancers in the world. The two most prominent ones are Malignant Mesothelioma and Lung Cancer. Mesothelioma, almost uniquely elicited by asbestos exposure, was a 'seldom' diagnosis before the 1960's. However, this aggressive cancer has become a relatively frequent diagnosis and more than 8,191 cases of mesothelioma have been reported in Australia from 1945 to 30 June 2004.¹ These numbers are expected to continue to rise in the coming decade; a tragic consequence of intensive use of asbestos and its products in Australia in the previous century. Mesothelioma presents itself several years after the first exposure to asbestos and unfortunately the disease is currently increasingly diagnosed in individuals exposed to asbestos in a non-occupational setting (home renovation). The number of lung cancers induced by asbestos cannot be accurately defined but it is generally assumed that for every case of malignant mesothelioma there must have been two cases of lung cancer associated with asbestos exposure.

There is no complete/reliable data, but it is generally accepted that asbestos is present in a significant percentage of homes/buildings constructed or substantially renovated from 1945 to 1987. This level of contamination with asbestos underscores the importance of adequate preventive measures. Information on new cases of mesothelioma is collected nationally by the Australian Institute of Health and Welfare and 661 new cases of malignant mesothelioma were reported in 2008¹. The Australian Mesothelioma Registry (AMR) was launched in 2010 will soon be able to provide a more complete description of the Australian mesothelioma epidemic.

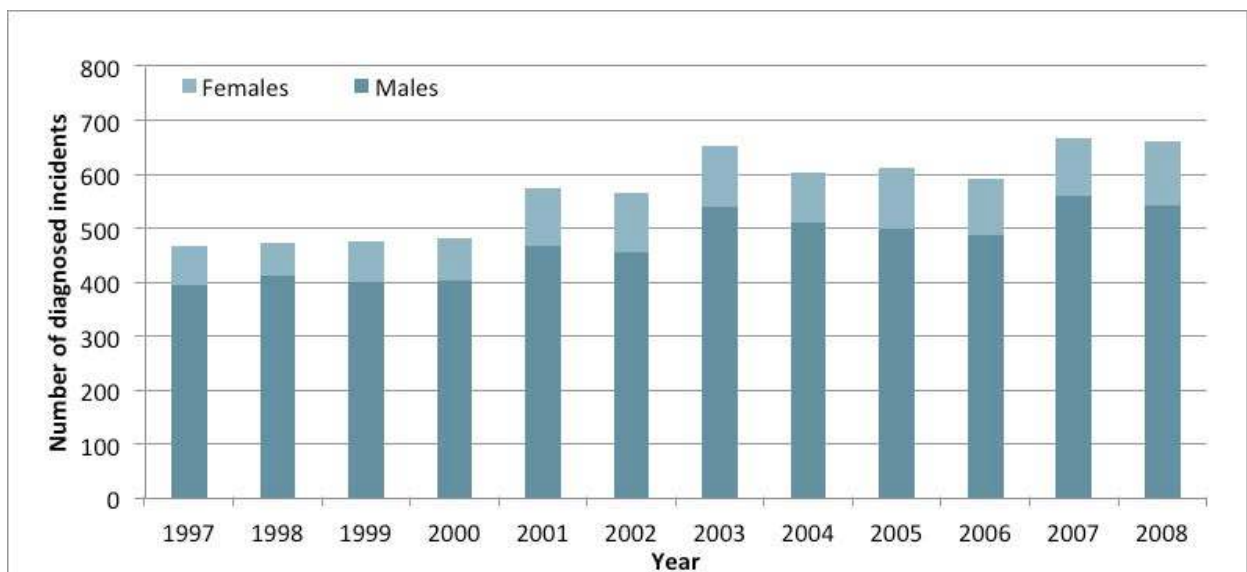


Figure 1: Diagnosed incidents of mesothelioma: by gender, 1997–2008¹

¹ Asbestos Management Review Report June 2012. <http://www.deewr.gov.au/amr>

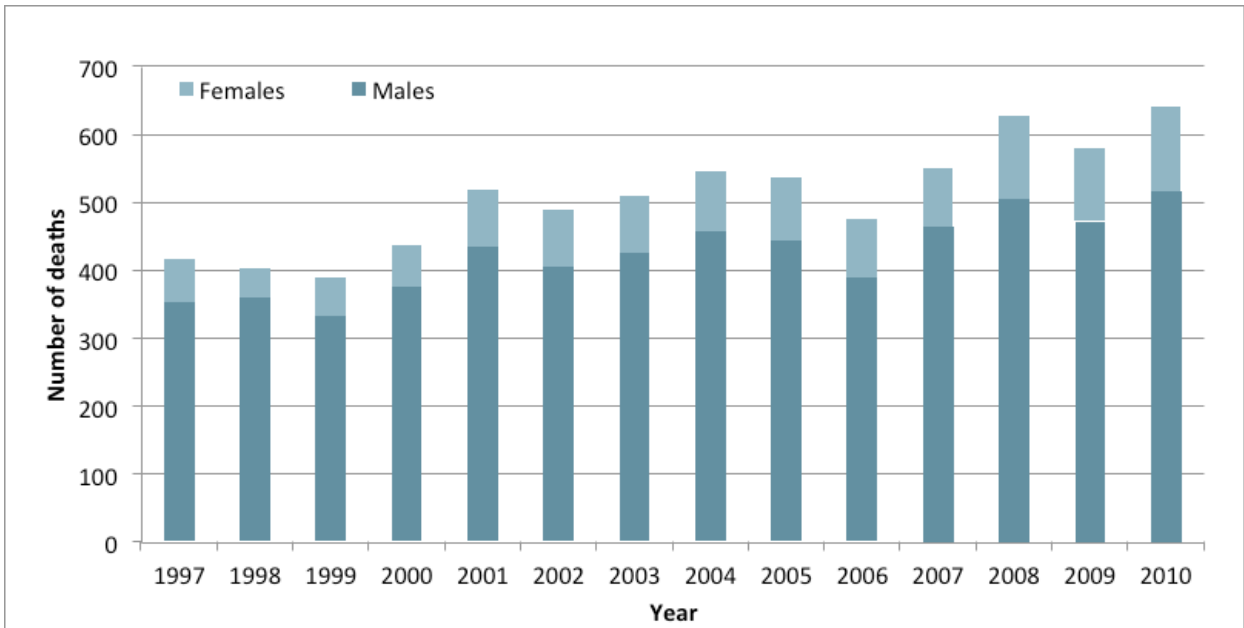


Figure 2: Deaths due to mesothelioma: by gender, 1997–2010¹

In addition to the direct human and medical cost, malignant mesothelioma in Australia has been estimated to lead to expenditures of ~\$8.4 billion over the next 30 years, revealing the major economic impact of asbestos exposure. Despite some improvement in the treatment of malignant mesothelioma in the last 10 years the overall prognosis of patients with this diagnosis has remained poor. It is therefore critical that we invest in research and increase our understanding of the specific biology of asbestos cancers in order to achieve significantly better outcomes.

OUR STAKEHOLDERS

The ADRI has established a close collaboration with patients suffering from asbestos-related diseases, their families and friends, their carers, medical practitioners, allied health workers, researchers, law firms (Slater & Gordon, Turner Freeman) and supporting and government organisations: among them Asbestos Diseases Foundation of Australia (ADFA), the Dust Diseases Board, Cancer Council of NSW, the Cancer Institute of NSW, Cancer Australia and NHMRC. ADRI is a member of Sydney Catalyst.

2012 HIGHLIGHTS

Dr Steven Kao was awarded the Premier's Award for Outstanding Cancer Research Scholar at the Annual Cancer Institute of NSW Premier's Awards for Outstanding Cancer Research in 2012

ADRI researchers awarded Young Investigator Award at international mesothelioma conference

ADRI researcher awarded the 2012 Concord Repatriation and General Hospital Early Career Researcher Prize for 2012

ADRI Researcher awarded best poster prize for Early Career Research at the Sydney Cancer Conference 2012

An ADRI publication 'Reid G, Kirschner MB, van Zandwijk N. Circulating microRNAs: association with disease and potential use as biomarkers' was awarded one of the Top 25 Hottest Articles for 2011 in Critical Reviews in Oncology/Hematology.

Launch of 'Betty, the ADRI House' during Asbestos Awareness Week to raise awareness about the dangers of asbestos.

Appointment of Ambassadors for Asbestos Awareness Week - Lindsay Farris, Scott McGregor, John Jarratt and Don Burke.



After retiring as President of the Dust Diseases Tribunal of New South Wales and as a judge of the District Court in November 2011, I was delighted to accept the invitation to become the Chair of the Board of the Asbestos Diseases Research Foundation. The appointment took effect in February 2012. The honour of working with the Members of this significant body, in co-operation with the Asbestos Diseases Research Institute, and the confidence of those who made the nomination are much appreciated.


The Foundation promotes and facilitates research into asbestos diseases with the aim of assisting those who suffer as a result of exposure to asbestos. It also promotes awareness of the risks of contracting, and of preventing, asbestos and other dust diseases. The Foundation is authorised to operate the Institute, and to raise funds for research and the operation of its research facilities.

The constitution of the Foundation was reviewed during 2012 and a number of amendments were made. Significant among these was the reduction to two of the Board members appointed to represent the Dust Diseases Board. Other events occurring during 2012 included the appointments of Mrs Sylvia Kidziak AM as Deputy Chair and of Professor Colonel Robert Lusby as the representative of the ANZAC Health and Medical Research Foundation to the Board of our Foundation. Professor Lusby replaced Professor David Handelsman who resigned from the Board in August. Mr Gary Miller was appointed to the Board as the representative of the SLHD. Professor Ben Freedman, who was the representative of the University of Sydney, resigned from the Board in November. As at the date of this report he has not been replaced.

In 2012 the Institute succeeded in attracting peer reviewed research funding. Such funding is limited to research only. Operating and infrastructure costs must be funded independently and for this purpose the Board is actively seeking alternatives to provide for non research costs, including the payment of employees' salaries, electricity, insurance and other necessary outgoings. Without such funds the Institute will be unable to continue its mission to improve the diagnosis of malignant mesothelioma, and to find new preventive measures for all asbestos related diseases. The Board will continue to seek funds to support research activities of the Institute.

The Institute is now in its fourth year of operation, having opened in 2009. Professor Nico van Zandwijk and his team of able and dedicated researchers and the administrative staff of the Foundation are worthy of gratitude and congratulations for their devotion to all aspects of its work. On behalf of the Board I convey its gratitude and congratulations.

John O'Meally AM RFD
Chair



It gives me great pleasure to present the 2012 Annual Report of the Asbestos Diseases Research Institute (ADRI). This is the fourth year of ADRI since opening in January 2009. In a relatively short space of time significant progress has been made and 2012 was an especially important year as after three years of hard work the Guidelines for the Diagnosis and Treatment of Malignant Pleural Mesothelioma (MPM) were completed. The basis of this ADRI initiative was formed by extensive searches of the world's medical literature along specific questions regarding the diagnosis and treatment of MPM. After reviewing more than 18,000 publications, 2304 scientific articles were subjected to a grading system according to the rigorous criteria of the National Health & Medical Research Council (NHMRC) to formulate evidence-based recommendations for the management of patients suspected of, or diagnosed with, MPM. Fifty experts from all over Australia contributed by defining the most important questions around diagnosis and treatment and a steering committee reviewed all the evidence collected with the aid of the ADRI secretariat that gave absolute priority to this project; the aim of the Guidelines is to provide optimal care for every Australian diagnosed with MPM. However, we wouldn't have been able to complete this impressive work without a major contribution from the Biaggio Signorelli Foundation and we feel privileged to receive the support of this foundation, dedicated to the cure and eradication of MPM.

In the laboratory there was also significant progress. The development of our diagnostic microRNA marker for MPM was published in the *Journal of Thoracic Oncology* and became one of our important publications of 2012. Together with 12 other peer-reviewed publications, 15 international conference presentations, nine posters presentations, seven local presentations, and three research awards and six travel awards it confirms that the impact of ADRI's research is rapidly increasing. We were also pleased to learn that Dr Glen Reid's publication 'Reid G, Kirschner MB, van Zandwijk N. Circulating microRNAs : association with disease and potential use as biomarkers' published in *Critical Reviews in Oncology/Hematology* was the most viewed articles for 2011 in this journal.

MicroRNAs constitute a major focus of ADRI's current research program. After identifying a potential diagnostic microRNA, another microRNA has been identified that has the potential to bring us a novel treatment approach. A series of experiments in tumour (mesothelioma) bearing animals showed that targeted nanotherapy with a microRNA was highly effective and in 2013 we will make great efforts to advance this form of therapy to the early clinical trial stage.

The two microRNA discoveries wouldn't have been possible without the dedication of the ADRI research team, lead by Dr Glen Reid and the ADRI Biobank that is steadily increasing its collection of materials supporting translational research.

ADRI continued to apply for research grant funding during the year and was awarded seven grants, including a large Translational Project Grant from Cancer Institute NSW and three project grants for the Dust Diseases Board of NSW. ADRI was also awarded 'Administering Institution' status by NHMRC allowing us to apply directly the NHMRC for funding and the associated infrastructure support.

In Australia houses built or renovated during the period from 1945 to 1987 can be significantly contaminated with asbestos. This level of contamination underscores the importance of asbestos awareness campaigns. In 2012 Asbestos Awareness Week campaign was bigger and better than the previous year. A candle light tribute



was held with Asbestos Diseases Foundation of Australia (ADFA) members as part of the campaign to honour the many Australians who have been victims of asbestos.

The Australian Mesothelioma Registry (AMR), supported by Safe Work Australia, and a joint initiative of the Cancer Institute NSW (CINSW), ADRI, Monash University, the School of Public Health at the University of Sydney and the Western Australian Mesothelioma Registry has produced its first full report and the data confirms earlier indications that the number of mesothelioma cases associated with asbestos exposure in a non-occupational setting is increasing. Therefore it is important that ADRI's research team has been strengthened in 2012 by the appointment of epidemiologist, Dr Matthew Soeberg, a postdoctoral research fellow who has a conjoint position at the University of Sydney's Cancer Epidemiology and Services Research (CESR) group. Matthew is involved in the translational research project grant (CINSW). Detailing and monitoring the Australian Mesothelioma epidemic is an important research subject with the potential to contribute to more effective preventive approaches in Australia.

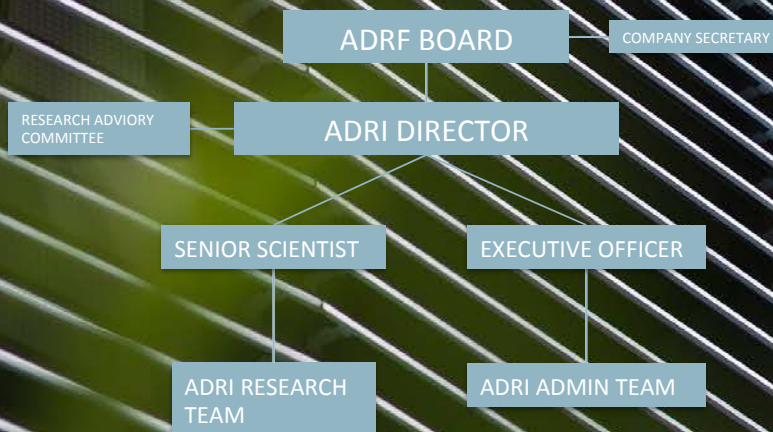
This report also provides the opportunity to thank those people, who make the institute work efficiently. The skills and commitment of Victoria Keena, and Ross Flemons, can't be praised enough. Grateful thanks obviously must also go to the ADRF Board, headed by Mr John O'Meally AM RFD, with support from the Deputy Chair, Ms Sylvia Kidziak. I would also like to thank Drs Andrew Penman and Christopher Clarke for their continued support and hard work, particularly in regard to the Guidelines. Finally the constructive relationship with the Sydney Local Health District (SLHD) and Concord Hospital should be mentioned. It was a privilege to work with Dr Teresa Anderson, Chief Executive, SLHD, and Mr Matthew Swanborough, General Manager of Concord Hospital, in 2012.

Professor Nico van Zandwijk
Director

OUR PEOPLE & GOVERNANCE

ORGANISATIONAL STRUCTURE

The ADRI Research Team has grown steadily since the opening of the Bernie Banton Centre in 2009. The growth of the research team is dependent on peer-reviewed grant funding and through the hard work and dedication of the team our success is increasing. The research team is supported by a small administrative team and both groups report to the ADRI Director, who reports to the Asbestos Diseases Research Foundation.



The Asbestos Diseases Research Foundation (ADRF) was established in 2006 as a charitable, not-for-profit organisation dedicated to assist and support the research efforts into asbestos and other dust-related diseases. The Foundation established and operates the Asbestos Diseases Research Institute (ADRI).

ABN 79 121 168 867

CORPORATE GOVERNANCE STATEMENT

The Board of the Foundation consists of the independent chairperson invited by the Minister for Industrial Relations (or appropriate Minister), two members from the Workers Compensation Dust Diseases Board; and nominees from the University of Sydney, ANZAC Health & Medical Research Foundation, Sydney Local Health District, Asbestos Diseases Foundation of Australia Inc., Unions NSW, and past and present manufacturers and suppliers of asbestos or dust-containing goods. In 2012 Mr John O'Meally AM RFD was appointed Chair of the ADRF and Ms Sylvia Kidziak AM as Deputy Chair. Col. Professor Robert Lusby replaced Professor David Handelsman as the representative of the ANZAC Health & Medical Research Foundation. The vacant position representing the SLHD was filled by Mr Gary Miller. Professor Ben Freedman resigned as representative of The University of Sydney and this position is currently vacant.

ADRF BOARD



Mr John O'Meally AM RFD
Chair

John O'Meally was appointed a judge in New South Wales in 1979. He retired as President of the Dust Diseases Tribunal and from the District Court in November 2011. Before his appointment to the bench he was an acting judge of the National Court of Papua New Guinea. He has been a judge of the High Court of Antigua and Barbuda in the Supreme Court of the Eastern Caribbean and an acting judge of the Supreme Court of NSW. Between 1995 and 2003 he was a member of the Standing Committee on Judicial Education for the Judicial Commission of NSW. He was commissioned in the Australian Army Legal Corps in 1968 and in 1979 became Chief Legal Officer (Active Reserve) of the 2nd Military District. Between 1995 and 2000 he was the Honorary Colonel of the Australian Army Legal Corps. He has been a Consultant to the Governments of St Lucia (West Indies) and Solomon Islands (Western Pacific). John O'Meally is a member of the Council of the Australian Section of the International Commission of Jurists (ICJ) and President of the NSW Branch. He has been a member of ICJ Delegations to East Timor and Papua New Guinea. He is an Associate Member of the Thoracic Society of Australia and New Zealand and a member of the Australia and New Zealand Society of Occupational Medicine. He is also a member of the Crime and Justice Reform Committee. In 2011 he was awarded the Thoracic Society Medal. In the same year he was appointed to the Advisory Council of the John Hulme Research Institute for Global Irish Studies at the University of NSW.

Appointed 22 February 2012

Ms Sylvia Kidziak AM
Deputy Chair

Ms Kidziak is Managing Director of SL Engineering, a Councillor on the NSW Business Chamber Sydney North Regional Council and held the position of Principal Consultant, Occupational Health, Safety and Environment Policy at Australian Business Ltd for 26 years. She is Chair of the ARPANSA Radiation Health and Safety Advisory Council and Member of the NSW Workers Compensation and Workplace Occupational Health and Safety Advisory Council. Ms Kidziak was formerly a Commissioner on the Australian Safety and Compensation Council and the National Occupational Health and Safety Commission, Board Member of the NSW Cancer Council, a Director on the NICNAS Industry, Government Consultative Committee, Chair of the Occupational Health, Safety and Rehabilitation Council of NSW and Chair or Member of various other state and federal government Councils and Committees concerned with health and safety matters. Ms Kidziak has received several awards for her work which has included extensive advice on policy and technical issues relating to health and safety, medical research and specifically asbestos. Reappointed: 16 May 2012

Mr Paul Bastian

Paul Bastian was appointed National Secretary of the Australian Manufacturing Workers' Union in March 2012, having previously held the position of National President since January 2010. Paul commenced his employment with the AMWU in 1981 and in 1997, was elected State Secretary of the NSW Branch. He is a shipwright by trade and completed a Law Degree while studying part time at the University of Technology, Sydney. Paul has worked throughout the manufacturing industry, in the construction, shipbuilding and metals industries, in both metropolitan and regional areas of the state. He is an Executive Board Member of APHEDA he represents the AMWU on a number of Government and ACTU bodies and was a member of the NSW

Manufacturing Council and the NSW Workers Compensation Advisory Council. He has a long history of involvement with community and union campaigns against asbestos and has represented the AMWU and International Metalworkers Federation (IMF) at numerous international asbestos Conferences. Appointed: 28 November 2007

Mr Brian Eichhorn

Mr Eichhorn has worked in manufacturing industries all his working life. For the past thirty (30) years he has held senior positions in Human Resources Management. Mr Eichhorn has qualifications in Human Resources and Occupational Health and Safety. He is a trustee of his company's superannuation fund. Resigned 16 May 2012

Professor Ben Freedman

Professor Ben Freedman is Professor of Cardiology at the University of Sydney. He was previously Head of Department of Cardiology at Concord Repatriation General Hospital and is now Head of the Vascular Biology Laboratory of the ANZAC Research Institute. Professor Freedman's research interests include ischaemia, acute coronary syndromes, heart failure, and inflammation and thrombosis in atherosclerosis. He is the author of well over 100 papers, articles and book chapters, is on the editorial board of a number of cardiology journals and was Scientific Chairman of the World Congress of Cardiology in 2002. Resigned: 14 November 2012

Professor David Handelsman

Professor Handelsman has been Director of the ANZAC Research Institute since its inception in 1998. He is an international expert in Andrology, the study of male reproductive health, medicine and biology. While studying for his PhD, he established the first clinical Andrology centre in Australia, which

has now become the first Australian hospital Andrology Department. David has served as adviser to the WHO Human Reproduction Programme, Secretary of the International Society of Andrology and President of the Endocrine Society of Australia. He was awarded the Susman Prize from the Royal Australasian College of Physicians in 1994 and the inaugural AMA Men's Health Award in 2003. He was promoted to a Personal Chair at the University of Sydney in 1996 to become the first Professor in Andrology in Australia. He is a director on the ANZAC Health and Medical Research Foundation. Resigned: 3 August 2012

Mr Dave Henry

Mr Henry has been the Occupational Health and Safety Officer for the NSW Branch of the Australian Manufacturing Workers' Union (AMWU) since 2003. He represents workers in relation to both OH&S and workers' compensation matters and is responsible for development and implementation of AMWU policy, representing the union at all levels of industry and government. Prior to this he was an industrial organiser with the union from 2001. He is the Chairman of the Industrial Health and Research Foundation and a board member of the New South Wales Dust Disease Board. Mr Henry is a WorkCover approved training provider. Resigned: 16 May 2012

Col. Professor Robert Lusby

Professor Lusby is Head of the Clinical School at Concord Repatriation General Hospital and Associate Dean of the Sydney Medical School, University of Sydney. In addition, he is the Head of Vascular Surgery at Concord Hospital. Professor Lusby is a Colonel in the Royal Australian Army Medical Corps, now on the inactive reserve list. He has served in Rwanda with the United Nations Peacekeeping Force, in Bougainville with the Peace Monitoring Group and in 1999 he served with the INTERFET forces in East Timor. In addition, he was

the Consultant Surgeon to the Australian Defence Force.

Appointed 3 August 2012

Ms Rita Mallia

Ms Mallia is the President of the Construction, Forestry, Mining and Energy Union (CFMEU) (NSW Branch), Construction and General Division. Prior to 2011 she was Senior Legal Officer of the Union. Rita is a member of the NSW Dust Diseases Board and is a Director of United Super Pty Ltd.

Reappointed: 20 August 2009

Mr Gary Miller

Gary Miller is the Director, Operations, Sydney Local Health District and is a registered nurse with both mental health and general nursing experience. He also holds a Bachelor of Business with a major in Management. He has extensive experience in the management of health services and previously held the position of General Manager, Concord Repatriation General Hospital. Prior to that appointment he was the General Manager at Canterbury Hospital and he has previously held a number of senior positions with the then Central Sydney Area Mental Health Service and at Rozelle Hospital. He has also been a director on the ANZAC Health and Medical Research Foundation. Appointed 22 February 2012

Mr Barry Robson

Barry Robson is the President of the Asbestos Diseases Foundation of Australia (ADFA) and President of the Blacktown and Mt Druitt Cardiac Support Group. He is a life member of the Maritime Union of Australia and the St Mary's Baseball Club. Appointed: 28 November 2007

Mr Sean O'Sullivan

Sean O'Sullivan joined James Hardie as Vice President – Investor & Media Relations in December 2008. In this role Sean is responsible for all matters relating to the corporate affairs for the group

including government relations. Sean is a member of the James Hardie's Group Management Team and reports to the company's CEO. For the eight years prior to joining James Hardie, Sean was Head of Investor Relations at St. George Bank, where he established and led the investor relations function. Sean's background includes thirteen years as a funds manager for GIO Asset Management managing domestic and global asset portfolios. Mr O'Sullivan's final position at GIO was General Manager of Diversified Investments where his responsibilities included determining the asset allocation for funds under management. After leaving the GIO, Sean worked for Westpac Banking Corporation in funds management sales. He has a Bachelor of Arts majoring in economics from Sydney University and an MBA from Macquarie Graduate School of Management.

Appointed 19 October 2011

Professor Nico van Zandwijk

Nico van Zandwijk earned his medical degree at the University of Amsterdam, The Netherlands, in 1973 and wrote his thesis on "Pulmonary injury elicited by blood" in 1976. He was editor of the Haematology section of *Excerpta Medica* until 1980, and received licences in internal medicine and pulmonary medicine in 1979 and 1981, respectively. In the same year he was appointed Assistant Professor of the Academic Medical Centre, Amsterdam and became Consultant Physician at the Netherlands Cancer Institute, Amsterdam. From 1985 to 2008 he was Head of the Department of Thoracic Oncology at that Institute. Professor van Zandwijk has served as Secretary (1982-1988) and Chair (1988-1994) of the European Organisation for Research and Treatment of Cancer (EORTC) Lung Cancer Group. He has chaired a number of boards and committees including: the Scientific Board of the clinical section of the Netherlands Cancer Institute; a National Advisory Board for new lung cancer medications, and a State Council on asbestos related disease. He has also been a member of the Advisory Board of

the Thoracic Section of the French National Cancer Institute (INCA). Professor van Zandwijk was a Board Director of the International Association for the Study of Lung Cancer (2005-2009) co-chaired the World Lung Cancer Conference (WLCC) 2011 and, is a Member of the Core Program Committee for the WCLC 2013, and member of the national Asbestos Management Review Panel. He was Study Coordinator of several international studies, and has authored or co-authored more than 250 peer-reviewed international papers and chapters. In 2007 the Asbestos Diseases Research Foundation, Bernie Banton and the University of Sydney recruited Nico van Zandwijk to the position of ADRI Director and Professor, Sydney Medical School.

Appointed: 29 July 2008

Mr Colin Goldrick Company Secretary

Colin is a past Partner and now Special Counsel with the legal firm of Goldrick Farrell Mullan, heading up their Business and Technology practice group. He also acts as legal counsel to the Foundation. Colin has been a lawyer since 1996, specialising in intellectual property, corporate advisory and commercial law. Prior to that Colin worked in the Information Technology industry for almost 15 years, holding positions ranging from technical support, through to sales and business unit management. He has also worked as a management consultant with CSC, consulting with companies on implementing business change. He advises a number of companies on compliance and governance issues.

Reappointed: 16 May 2012



OUR EXECUTIVE

Professor Nico van Zandwijk - Director

Professor Nico van Zandwijk, Director of the Asbestos Diseases Research Institute (ADRI), is Professor of Medicine at the University of Sydney. In 2007 he joined ADRI after a long career in thoracic oncology in Europe. In 1985 he founded the department of thoracic oncology at the Netherlands Cancer Institute and made major contributions: to the identification of prognostic factors in lung cancer and malignant mesothelioma; to chemoprevention studies in lung cancer; and major national and international clinical trials. He served as secretary (1982-1988) and chair (1988-1994) of the EORTC Lung Cancer Cooperative Group. He chaired the Dutch Guidelines Committee for Diagnosis and Treatment of Lung Cancer and State Committees on Asbestos-related diseases, and Asbestos & Lung Cancer of the Dutch Health Council (2002-08). He was a member of the Board of Directors of the International Association for the Study on Lung Cancer (IASLC) (2005-09) and the advisory board of the Thoracic Oncology Section of the French National Cancer Institute (INca) (2006-2008) and co-chaired the (IASLC) World Conference on Lung Cancer 2011 in Amsterdam and is a member of the Core Program Committee for the WCLC 2013 in Sydney. He has been plenary speaker at ASCO and IASLC meetings and currently serves on the editorial board of Cancer Prevention Research, a journal of the AACR. He is a member of the National Lung Cancer Advisory Group of Cancer Australia and the National Asbestos Management Review Panel. He has authored or co-authored more than 250 peer-reviewed international scientific papers and book chapters and has long-standing collaborations with investigators from other states in Australia, Europe, Canada, the US, Japan and Korea.

Ms Victoria Keena – Executive Officer

Victoria Keena joined the ADRI in August 2008 as a Senior Consultant after many years as the General Manager of the Woolcock Institute of Medical Research. Victoria assisted with fitout and development of the ADRI since it opened in January 2009. She has had extensive hands-on experience in the administration of a medical research institute. She has been involved with a variety of funding programs and awards to support science and medical research, such as NH&MRC, ARC, and infrastructure support programs such as the NSW Medical Research Support Program. Victoria has written peer-reviewed journal articles, published annual reports, edited scientific publications and has co-authored a number of books, including: Peat J, Elliott E, Baur L, Keena V. Scientific writing: easy when you know how. London: BMJ Books 2002. Victoria is also currently the Executive Officer for the development of Guidelines of the Diagnosis and Treatment of Malignant Pleural Mesothelioma which will be published in 2013.

Professor Nico van Zandwijk



OUR RESEARCH TEAM

Dr Glen Reid – Senior Scientist

Dr Glen Reid was appointed ADRI's Senior Research Scientist in April 2009, and he established the Institute's cell and molecular biology labs. His research focuses on the identification of new markers and molecular targets for malignant mesothelioma. Previously he was Principal Investigator, Head of RNAi Product Development for Genesis Research & Development Corporation in New Zealand where he led a cancer RNAi discovery program. He was awarded a PhD from the University of Göttingen in Germany, after which completed his postdoctoral studies with Professor Piet Borst at The Netherlands Cancer Institute in Amsterdam, where his main focus was on the characterization of multidrug resistance proteins.

Ms Marian Barker – Biobank Officer

Marian Barker joined ADRI as Biobank Officer in December 2010. Having completed her Masters in International Public Health at Sydney University in 2000, Marian took up an AYAD position as health educator in Bangkok with the Office of Primary Health Care, a division of the Thai Ministry of Health. She later coordinated an online Directory of Clinical Databases at the London School of Hygiene and Tropical Medicine, University of London. Marian returned to Sydney in 2004 and worked part time at the Workers Compensation Dust Diseases Board of NSW, contributing research to several asbestos related diseases projects.

Dr Ngan Ching Cheng – Molecular Biologist

Ngan Ching Cheng completed her PhD at the University of Amsterdam, The Netherlands, on neuroblastoma tumour suppressor genes. She then worked on mouse models of Fanconi Anaemia and Fragile X syndrome at the Free University of Amsterdam, the Netherlands Cancer Institute and Erasmus University, Rotterdam. Since her relocation to Sydney in 2001 she has been working on experimental therapies for neuroblastoma using the TH-MYCN mouse model at the Children's Cancer Institute. She is now engaged at the ADRI to work on novel treatments for mesothelioma.

Dr Yuen Yee Cheng – Molecular Biologist

Yuen Yee Cheng joined ADRI as a Research Fellow in March 2010. She completed her PhD at the Chinese University of Hong Kong where she starts her research in epigenetic alterations in gastric cancer. She then undertook two years of Postdoctoral training at the University of Hong Kong. Epigenetic gene regulation has been the major focus of Dr Cheng's research efforts her research in epigenetic alterations in cancer has been published in prestigious international journals. At ADRI, Dr Cheng continues her epigenetic study as well as focusing on microRNA profiling of malignant mesothelioma.

Dr Glen Reid and the research team



Dr Christopher Clarke – Senior Clinical Advisor

Christopher Clarke commenced practice as a Consultant Thoracic Physician in 1976. His special interest has been occupational lung disease. He has held appointments at a number of public hospitals in Sydney including Visiting Medical Officer in the Department of Thoracic Medicine at Concord Hospital until December 2008. Dr Clarke now works under the MSOAP-ICD program as a thoracic physician in Walgett, Brewarrina, Bourke and Orange. He is the employee nominated member of the Medical Authority of the Workers Compensation (Dust Diseases) Board of NSW .He is an Authorised Medical Specialist for the NSW Workers Compensation Commission. He is a past President of the Thoracic Society of Australia and New Zealand.

Mrs Rebecca Hyland - Database Coordinator

Rebecca Hyland joined the ADRI in 2012 on a part-time basis to assist with the development of the Biobank database. Rebecca has a Masters of International Public Health and has experience in the management and maintenance of clinical databases. Rebecca previously had been the Clinical Database Coordinator of the Ovarian Cancer Study at the Garvan Institute and was a Research Officer at the Dust Disease Board of NSW. Rebecca has co-authored a number of papers asbestos-related diseases.

Dr Steven Kao – Research Fellow

Dr Steven Kao, is a medical oncologist at Royal Prince Alfred and Liverpool Hospitals. He completed his PhD at the ADRI and focused his research on predictive and prognostic factors in malignant mesothelioma. Steven has a wide clinical, translational and psycho-social research interest in thoracic cancers including malignant mesothelioma and asbestos-related lung cancers. He was awarded the Premier’s Award for Outstanding Cancer Research Scholar from the Cancer Institute, NSW.

Dr Michaela Kirschner - The Swift Family Bequest & Mr Jim Tully Fellow

Michaela Kirschner commenced as a Postdoctoral Fellow at the Asbestos Diseases Research Institute in September 2009. Having completed her teaching degree in biology and chemistry, Michaela performed her PhD thesis at the University of Heidelberg and the German Cancer Research Centre in Heidelberg, Germany (2005-2009). The focus of her PhD thesis was on preclinical studies on the anti-metastatic effects of drugs in lung cancer and the identification of potential drug target genes. The main focus of Michaela’s work at the ADRI is to investigate whether microRNAs can be detected in the blood of mesothelioma patients. By assessing the microRNA content of blood from mesothelioma patients a number of microRNAs have been identified that may act as a marker of diseases. This research is supported by The Swift Family Bequest & Mr Jim Tully Fellowship.

Dr Michaela Kirschner



Dr Anthony Linton - the Biaggio Signorelli Foundation Fellow

Anthony Linton is an oncology fellow at Concord Hospital and started his PhD at the ADRI building on the research success of the ADRI to identify new bio-markers and potential targets for new treatment approaches for malignant mesothelioma. Dr Linton has completed a review on the epidemiology of mesothelioma and in particular on the consequences of occupational and environmental asbestos exposure. Dr Linton is supported by the Biaggio Signorelli Foundation.

Dr Lyn Schedlich – Cellular Biologist

Lyn Schedlich joined ADRI as a Research Fellow in September 2009. Her previous appointment was as Head of the Gene Regulation Laboratory in the Hormones and Cancer Group at the Kolling Institute of Medical Research. Lyn has many years of experience as a cancer cell biologist with a particular interest in cell imaging and flow cytometry. Lyn left ADRI in September 2012 to enjoy her retirement.

Dr Matthew Soeberg - Epidemiologist

Matthew Soeberg is a postdoctoral research fellow working on Part I of the ADRI's Cancer Institute NSW Translational Program Grant. He is employed through University of Sydney's Cancer Epidemiology and Services Research (CESR) group and is based at the Cancer Institute of New South Wales. He will help to develop epidemiological research projects using mesothelioma cancer registry and other data. Matthew completed his PhD at the University of Otago, Wellington in July 2012. Matthew's PhD examined trends and inequalities in cancer survival in New Zealand, 1991-2004, using relative survival and excess mortality rate modeling with linked Census, cancer registry and mortality data. Matthew has a strong interest in maximising the relevance of epidemiological research to policy, practice and improved patient outcomes.

Miss Subothini Srikanan – Research Assistant

Miss Subothini Srikanan started working at ADRI on the 13th of February 2012. She has been investigating whether treatment of mesothelioma cell lines with small molecule inhibitors is capable of sensitizing them to currently used chemotherapeutic drugs. Currently she is generating mesothelioma cell lines that are resistant to chemotherapeutic drugs such as Cisplatin, Pemetrexed, Gemcitabine and Vinorelbine for the DDB grant. In addition to this she is also involved in general laboratory maintenance.

Dr Anthony Linton



Ms Marissa Williams – Research Assistant

Marissa Williams commenced work at ADRI in February 2012 as a research assistant. She completed her undergraduate degree of Forensic Biology in Biomedical Science at the University of Technology Sydney and went on to undertake an honours project in paediatric oncology at the Tumour bank, Westmead Children’s Hospital. This project was based on drug resistance mechanisms of a childhood cancer to novel therapeutics. At ADRI she assists in the investigation of a multitude of projects, mostly looking at the effects of microRNA reintroduction into cell lines. She hopes to pursue a PhD in this area in the near future.

Ms Casey Wright – Research Fellow

Casey completed her Bachelor of Science at the University of Queensland in 2004 and was awarded first class honours in 2006. In August 2007, Casey undertook a PhD program entitled “Genomic characterisation of asbestos-related lung cancer” at The Prince Charles Hospital where she was a recipient of an NHMRC Biomedical Postgraduate Scholarship. These studies focussed on investigating gene expression profiles, copy number variations and methylation profiles in asbestos-related lung cancer. Casey has presented her work at several international and national meetings and has received several prizes and awards. She has written and been involved with several publications investigating asbestos fibre counting in lung cancer patients, gene expression profiles in asbestos-related lung cancers, and CYP1A1 polymorphisms in lung cancer. Casey is passionate about contributing to research that can potentially revolutionize treatment options, provide greater understanding of biology and provide better quality of life for sufferers of mesothelioma.

Ms Marissa Williams



OUR ADMINISTRATION TEAM

Mr Justin Crosbie – IT Officer

Justin Crosbie joined ADRI in 2009 as the Information Systems Manager. He has completed a Science degree in Information Technology at the University of Technology, Sydney. Justin has previous experience working an information technology consultancy firms and also works for the ANZAC Research Institute on the Concord Campus.

Mr Ross Flemons - Accountant

Ross Flemons joined the ADRI in December 2009 as part time Accountant. His previous position was as Finance Manager at the Woolcock Institute of Medical Research where he worked for 14 years. Ross is CPA qualified and has vast experience with all financial matters relating to independent medical research organisations, including reporting, budgeting, payroll, compliance and financial management.

Ms Kim Mattock – Receptionist

Kim Mattock joined the ADRI in April 2010 as the Receptionist/Administrative Assistant of the Bernie Banton Centre. Kim previously worked in varied administration roles and fields, both corporate and government. Joining ADRI is a return to the Concord Hospital campus for Kim; in a 'previous life' she worked for various specialists throughout the Hospital.

Mrs Jenny Weismantal - Volunteer

Jenny Weismantal joined the ADRI in 2011 as a Volunteer through the Concord Hospital Volunteers. Jenny has a Bachelor of Business in accounting and has assisted the Administration Team in many tasks including the development of the grants calendar and cataloguing of samples from the Australian Mesothelioma Surveillance Program. Jenny has also participated in the development of the Guidelines for the Diagnosis and Treatment of Malignant Pleural Mesothelioma as a consumer representative.

Ms Kim Mattock



OUR ACHIEVEMENTS

RESEARCH REPORT

The ADRI's research is focused on translational, clinical and epidemiological aspects of asbestos-related diseases. New insight will be translated into more effective ways of prevention, better diagnostic and therapeutic procedures and novel treatment approaches.

MicroRNAs as biomarkers for malignant mesothelioma

Michaela Kirschner

The accurate diagnosis of malignant mesothelioma is particularly difficult and often depends on the availability of a tumour biopsy. To overcome this problem, the potential of using proteins detectable in the blood of patients as markers for (early) diagnosis has been investigated, but none of these have reached the accuracy required for routine clinical use. Recently it has been shown that a class of small molecules, microRNAs, are detectable in both serum and plasma and that those microRNAs have great potential to serve as biomarkers. At ADRI we explore whether such microRNAs could serve as novel diagnostic markers for mesothelioma. One of those microRNAs, miR-625-3p, is present at significantly higher levels in the blood of mesothelioma patients and is able to discriminate those patients not only from healthy controls, but also from patients with asbestosis. These data suggest that miR-625-3p could serve as a novel blood-based diagnostic marker for malignant mesothelioma. Ongoing research in this area is further validating the value of this as well as other microRNAs as novel diagnostic markers for malignant mesothelioma. In addition to investigating microRNAs as potential diagnostic markers for malignant mesothelioma we are also investigating the potential prognostic value of microRNAs expressed in tumour tissue.

MicroRNAs as therapeutic targets in malignant pleural mesothelioma (MPM)

Glen Reid

As part of our studies into the use of microRNAs as biomarkers for MPM, we observed a significant downregulation of an entire microRNA family in MPM tumour samples and cell lines. When the expression of these microRNAs were restored in cell lines using 'mimics'; growth was inhibited and cells were sensitised to chemotherapy. The microRNA family members' exhibit significant sequence homology and together are predicted to target many of the genes found to be aberrantly over-expressed in MPM. This observation provides the opportunity to correct expression of multiple genes with a single therapeutic microRNA. In pre-clinical models we have demonstrated that tumour growth can be inhibited by systemic administration of microRNA mimics, providing the first evidence for a therapeutic application of microRNAs in MPM.

Ms Casey Wright

New targets for MPM therapy: a pre-clinical assessment of Cilengitide

Ngan Ching Cheng

Integrins are membrane adhesion molecules mediating cell-cell and cell-extracellular matrix interactions via binding to their ligands e.g. collagen, laminin, fibronectin, fibrinogen, vitronectin etc. The combination of the 18 alpha and the 8 beta subunits form the 24 members of the integrin family. They are crucial for tissue architecture, motility, and response to their environment. Unsurprisingly, they are implicated in cancer development and progression: activation of certain integrins is associated with tumour invasion and metastasis. Activation of integrins has been implicated in mesothelioma. Therefore we investigated the activity of integrin inhibitors in models of mesothelioma. Cilengitide is a synthetic peptide that inhibits all alpha v beta 5 integrin complexes, and we have analysed the response to Cilengitide in 11 mesothelioma cell lines. Overall cytotoxicity in these cells is low, in line with literature reports on other cancers, but Cilengitide causes cell detachment and strongly reduced tumour cell migration from 3D spheroids. The potential of Cilengitide in mesothelioma treatment will be explored further in pre-clinical models.

Long Noncoding RNAs in Malignant Pleural Mesothelioma

Casey Wright

Malignant Pleural Mesothelioma (MPM) is an aggressive disease that is often diagnosed at an advanced stage and is characterized by the long latency period between initial exposure and diagnosis (vis. 20-40 years). At present there are few molecular biomarkers for MPM, and no markers to detect the disease at an early stage. As part of the ADRI research program, we have been investigating the potential of long noncoding RNAs (lncRNAs) to serve as biomarkers in MPM. These pieces of genetic code have already been shown to have a role in a myriad of cancers including lung, colorectal, and breast, and represent potential new biomarkers for mesothelioma. Preliminary work has identified a panel of six lncRNAs that demonstrate higher levels of expression in MPM cells/tissues compared to a normal mesothelial cell line and benign pleura. This data is tantalising and suggests the possibility that lncRNAs may play a role in MPM. As many of these lncRNAs are currently uncharacterised, functional work is currently underway to ascertain what their potential role is in MPM.



Tumour Suppressor Genes in Mesothelioma **Yuen Yee Cheng**

The relationship between promoter DNA hypermethylation and inflammation has been documented in many forms of cancer, including MPM. It is possible that asbestos exposure contributes to MPM formation through this relationship, because it is known that asbestos induces continuous inflammation instead of directly transforming primary human mesothelial cells in tissue culture. The chronic inflammation caused by exposure of serosal surfaces to asbestos fibres is likely to represent a central factor in the carcinogenesis of MPM and this in turn may be mediated through epigenetic changes. Global DNA methylation has been investigated in MPM and a number of genes were methylated at varying frequencies, with the extent of methylation correlating with self-reported asbestos exposure and lung fibre burden. Dysregulation of epigenetic transcriptional control, particularly aberrant promoter DNA methylation and histone modifications, is a fundamental feature of human malignancies. We study the involvement of different signaling pathways of these so-called epigenetic regulation of potential Tumour Suppressor Genes in mesothelioma which will hopefully lead to new therapeutic targets. The identification of inflammatory-induced (epigenetic) changes in the serum of patients may also assist in the early detection of mesothelioma.

New targets and prognostic markers in MPM

Anthony Linton, Yuen Yee Cheng, Glen Reid

Following an RNAi screen to identify potential targets for therapy in MPM, we have assessed a number of targets involved in the cell division and tumour growth, including PLK1, CDC2, NDC80 and Beta 3 Tubulin. PLK1 expression in a large surgical retrospective cohort of patients diagnosed with MPM was associated with a significant alteration in prognosis. Furthermore, inhibition of PLK1, CDC2 and NDC80 in mesothelioma cells was shown to result in a marked change in cancer cell growth. Such results support the further investigation of therapeutic agents targeting these in animal models and human trials. Despite promising data in patients with lung cancer, Beta 3 tubulin expression and inhibition, has no measurable impact on the growth of mesothelioma cells. Further research will focus upon assessing this target in combination with the inhibition of other genetic targets.

Dr Yuen Yee Cheng

CLINICAL RESEARCH

Long-term survivors in MPM

Anthony Linton, Nico van Zandwijk

The prognosis of patients diagnosed with malignant pleural mesothelioma (MPM) has long proven difficult for clinicians to predict. Similarly our abilities to accurately identify which patients will respond to chemotherapy or surgical interventions remain limited. With the co-operation of the NSW Dust Diseases Board, I am performing the largest analysis to date of long survivors with MPM. Despite a prognosis of only 9-12 months in the community at large, approximately 20% of patients diagnosed with MPM survive over 20 months. Gathering data from the medical and surgical records of 1100 patients diagnosed between 2002 and 2009, I seek to identify the clinical and pathological prognostic factors suggestive of such prolonged survival. This study will provide valuable assistance to diagnosing clinicians, patients and their families.

Predictive and prognostic markers for Malignant Mesothelioma

Steven Kao, Nico van Zandwijk, Glen Reid

Despite a poor prognosis in general, the survival of individual mesothelioma patients may show significant variation. The ADRI Biobank has enabled us to identify novel biomarkers that improve prognostication and maybe also predict response to therapy. The Neutrophil-to-Lymphocyte Ratio (NLR) which was for the first time investigated as a marker for mesothelioma at the ADRI is now accepted (through validation studies by other research groups) as an accurate prognostic marker and prospective validation is currently underway.

Chemotherapy Utilisation for Malignant Mesothelioma patients

Steven Kao, Nico van Zandwijk, Janette Vardy, Haryana Dhillon

From our previous pattern of care study, we determined that around 54% of the mesothelioma patients in NSW received chemotherapy. We are currently estimating the proportion of mesothelioma patients that should have received chemotherapy at least once during the course of their illness, based on the best available evidence, so that we can determine whether chemotherapy for malignant mesothelioma is under-utilised. Further study will be conducted to assess the potential barriers to the uptake of chemotherapy in mesothelioma patients.

Psychosocial Research in patients with Malignant Mesothelioma

Janette Vardy, Steven Kao, Haryana Dhillon

One of the important treatment goals in the management of mesothelioma is to reduce the high symptom burden that accompanies this disease. There is however a paucity of data on quality of life (QoL) of mesothelioma patients and the unmet needs for both patients and carers. A plan to investigate the relationship between QoL, systemic symptoms (such as fatigue, anorexia and cachexia) and inflammatory markers is underway. We will also explore the psychological and unmet needs of caregivers and families of patients with mesothelioma.

Guidelines for the Diagnosis and Treatment of Malignant Mesothelioma

Nico van Zandwijk, Victoria Keena, Christopher Clarke and a National Steering Committee chaired by Andrew Penman, former CEO of the NSW Cancer Council

One of the major barriers to providing high quality care for patients with cancer is the lack of standardisation or consistency of care during diagnosis and treatment and MPM is no exception. Currently in Australia there are no guidelines specifically written for the diagnosis and treatment of MPM. During the last three years ADRI and a national team of experts have searched the world's medical literature to answer specific question regarding the diagnosis and treatment of MPM. The evidence (2304 articles) has been subjected to a rigorous criteria set by the National Health and Medical Research Council of Australia, allowing for the formulation of recommendations for daily clinical practice. The guidelines developed by ADRI provide health professionals with reference standards to review their own practice, and assist care teams in planning clinical treatment pathways. The Guidelines also provide patients and their families the necessary information to appraise their diagnostic and treatment options.

The Guidelines for the Diagnosis and Treatment of Malignant Pleural Mesothelioma will be open for Public Consultation in January-February 2013. Comment on the Guidelines will be collated and addressed before submission to the HNMRC for approval under section 14A of the National Health and Medical Research Council Act 1992. It is anticipated that completed Guidelines will see their final publication mid 2013.



ADRI Biobank

Marian Barker Glen Reid, Yuen Yee Cheng, Sonja Klebe, IT Garvan, Nico van Zandwijk

Biobanks are a critical link in translational research. The availability of large collections of patient samples and corresponding clinical data is an essential element of bio-molecular research and its translation into medical, scientific, economic and societal benefits.

The ADRI Biobank, supported by CSR, provides researchers with high quality biospecimens and data in order to improve the diagnosis and treatment of malignant mesothelioma and to contribute to effective preventative measures. Due to the relatively small number of mesothelioma patients at each hospital, no single centre in NSW can collect enough material for translational research projects. The establishment of the Mesothelioma Biobank at the ADRI has provided the infrastructure for a centralised biospecimen repository to support vital translational research, such as the ability to rapidly examine novel targets for drug therapy, and acts as a unique resource for novel technologies such as deep sequencing proteomics.

As of December 2012, 115 patients had consented to donate to the Biobank, resulting in:

- > 75 tissue samples, collected according to protocol, and
- > 65 blood samples, processed and stored as:
 - cytokines (≈250 samples),
 - proteomics (≈ 1000 samples)
 - buffy coat (white blood cells and platelets).

We believe that the development of a comprehensively annotated bio-resource of mesothelioma tissue and blood specimen, collected to uniform Standard Operating Procedures, will have tremendous potential to facilitate research into mesothelioma and other asbestos-related disease. Given the problems that will be encountered in Australia and elsewhere in the world over the next decades, due to asbestos present in our environment and the poorly controlled use of asbestos in developing countries, the ADRI Biobank is essential to future research.

During 2012 preparations were made to allow ADRI to contribute to The Cancer Genome Atlas (TCGA), a major undertaking aims to produce a complete picture of the genome of malignant mesothelioma. A/Professor Sonja Klebe and Dr Yuen Yee Cheng have been instrumental in completing the quality control steps needed for this project.

Ms Marion Barker

The Australian Mesothelioma Registry ADRI

The Australian Mesothelioma Registry (AMR) www.mesothelioma-australia.com was established to collect information about people with mesothelioma. The AMR is set up as a stand-alone database containing information about people diagnosed with mesothelioma from 1st July 2010 in Australia, including information about asbestos exposure.

The aim of the AMR is to:

- monitor the number of new cases of mesothelioma; and
- collect detailed information about people with mesothelioma and their occupational and environmental asbestos exposure.

Historically Australia has collected national mesothelioma incidence data for many years, the ability to estimate patterns of exposure in an 'at risk population' has been limited. The AMR provides a national resource for researchers to conduct further analysis with the aim of identifying preventable risk factors to assist in reducing mesothelioma in the future.

The AMR is funded by Safe Work Australia and its development and operation is overseen by a consortium of organisations including some of Australia's leading experts in asbestos-related diseases and cancer registration. The Cancer Institute NSW is responsible for the management of the AMR. The AMR has developed a relationship with the Cancer Registry of each state and territory in Australia to provide the AMR with information about each person with mesothelioma.

The following organisations have a role in the AMR:

- Safe Work Australia
- Cancer Institute NSW
- The Monash Centre for Occupation and Environmental Health, Monash University
- The Hunter Valley Research Foundation
- Asbestos Diseases Research Institute
- The Cancer Epidemiology and Health Services Research Group, The University of Sydney
- The University of Western Australia and the Western Australian Cancer Registry
- Other State and Territory Cancer Registries (ACT, NSW, NT, QLD, SA, TAS, VIC)

The AMR collects information about cases of mesothelioma to:

- Better understand the relationship between asbestos exposure and mesothelioma.
- Better understand the nature and levels of asbestos exposure that can result in mesothelioma.
- Identify the groups of workers exposed to potentially dangerous levels of asbestos and to prevent that exposure.
- Assist the development of policies to best deal with the asbestos still present in our environment (mainly our built environment).
- Provide information to assist researchers in undertaking investigations with the aim of preventing mesothelioma in the future.
- Identify other potential exposures that may cause mesothelioma.

The AMR published its first annual report 'Mesothelioma in Australia 2011' in 2012.

Dr Matthew Soeberg has been appointed as postdoctoral research fellow to help develop epidemiological research projects using AMR and other data. His research is funded through the ADRI's Translational Programme Grant from the Cancer Institute of New South Wales. Matthew is employed through the University of Sydney's Cancer Epidemiology and Services Research (CESR) group and is based at the Cancer Institute of New South Wales.

australian
mesothelioma
registry

Prevention through Education Nico van Zandwijk, Victoria Keena and Glen Reid

As a man-made disease, asbestos-related diseases are by definition preventable. However, the number of new cases of mesothelioma and deaths from asbestos-related cancers continue to rise. The mining and the intensive use of asbestos, and its products in the previous century, has had a traumatic impact on Australia as it is now one of the countries with the highest incidence of malignant mesothelioma in the world. The increasing incidence of mesothelioma reinforces the pressing need to increase awareness about the dangers of asbestos through education.

The ADRI and the Asbestos Education Committee (an initiative supported by WorkCover NSW, the ACTU and James Hardie Industries) joined forces again this year for Asbestos Awareness Week (26-30th November). The aim of the 2012 Asbestos Awareness Week campaign was to educate handymen, women, homeowners, DIYers and their children about the risks of exposure to asbestos fibres while undertaking renovations or maintenance in and around the home.

Houses built or renovated in Australia during the period from 1945 to 1987 can be significantly contaminated with asbestos. To prevent future asbestos exposure the 2012 Asbestos Awareness Week campaign launched 'Betty, the ADRI House'. 'Betty' is a purpose built model house demonstrating areas in the home where asbestos might be found. Over the next twelve months, 'Betty' will tour cities as well as rural and regional areas throughout NSW raising awareness of the dangers of asbestos in the home.

Also launched during the 2012 Asbestos Awareness Week was the Model Asbestos Policy for NSW Councils. Prepared by the Local Government and Shires Associations of NSW (LGSA) together with the Heads of Asbestos Coordination Authorities (HACA), the Model Asbestos Policy will assist councils to develop a comprehensive asbestos policy for their Local Government Area.

During 2012 Asbestos Awareness Week the inaugural national candle light tribute was held at Hickson Road Reserve, opposite the Sydney Opera House, to honour the many Australians who have been victims of asbestos. For further information on asbestos awareness visit the AsbestosAwareness.com.au website.

RESEARCH SUPPORT

During 2012 the ADRI's Research Program was supported by both peer and non peer-reviewed grants.



PEER-REVIEWED GRANTS

Dust Diseases Board Research (DDB) & Community Support Grant - MicroRNAs as Biomarkers for Malignant Mesothelioma

Kirschner MB, Reid G, Badrian B, Mutsaers S.

Diagnosing and staging mesothelioma is difficult, especially in its early stages, and this has hindered the development of a generally accepted stage-related approach. We have recently identified microRNAs (miRs) that are present at higher levels in the serum of patients with malignant mesothelioma, and that may represent valuable markers for the malignant mesothelioma diagnosis. This research project will extend our observations and validate the diagnostic value of these candidate markers in larger groups of patients. We will further investigate the ability of the same miR candidates to serve as a marker for early detection using serial samples collected over the past 20 years as part of the Asbestos Review Program (WA). Finally, our findings will be applied to the detection of cell-free microRNAs in pleural effusion fluids as an aid to accelerated diagnosis.

Dust Diseases Board Research (DDB) & Community Support Grant - Chemotherapy utilisation for malignant mesothelioma patients – optimal rate, barriers to access and patient preferences

Kao S, Ng W, Vardy J, Dhillon H, van Zandwijk N, Blinman P.

Malignant mesothelioma remains a substantial burden for Australian society despite the ban on asbestos production. NSW has the highest number of malignant mesothelioma diagnosis in Australia. The outcome of this research will address some of the major unmet needs for patients with malignant mesothelioma and determine potential deficiencies in health care services which may provide direction for improvements or restructuring of health care for patients with malignant mesothelioma. Determination of the optimal chemotherapy utilisation rate in malignant mesothelioma will allow comparison to our recent data on actual utilisation rates in Australia. If chemotherapy is under-utilised, ways to reduce the gap between established best evidence and current clinical practice will need to be determined.

Dust Diseases Board Research (DDB) & Community Support Grant - Using proteomics to improve prognostication and prediction in malignant mesothelioma


Reid G, Molloy M, Kao SC-H, van Zandwijk N, Clarke S.

Clinical management of mesothelioma is hampered by a lack of molecular biomarkers for diagnosis, prognosis and predicting response to therapy. There are few treatment options that give increased survival, and the best response rates to chemotherapy are around 40%. Identifying those patients who would benefit from available treatments would be an advance. We have identified plasma proteins present at higher levels in patients with malignant mesothelioma that seem to be associated with survival. We plan to confirm these studies and validate these protein markers in additional patient samples. The intrinsic and acquired drug resistance of malignant mesothelioma is a further clinical problem that we will address using proteomics techniques. Observations made in in vitro studies of drug resistant malignant mesothelioma cell lines will lead to better understanding of drug resistance in malignant mesothelioma. These findings have the potential to be translated into clinical practice allowing doctors to better predict response to therapy, another unmet need in clinical management of malignant mesothelioma.

Cancer Australia Priority-driven Standard Project Grant -The use of RNAi to identify new therapeutic targets for malignant mesothelioma

Reid G, Klebe S, van Zandwijk N.

Chemotherapy response rates remain poor in malignant mesothelioma, and despite some improvements in survival with the current standard of pemetrexed with cisplatin, new targets are needed. Trials with targeted molecular therapies have been largely unsuccessful, suggesting an alternative approach is required. We have used an RNAi-based screen to search for potential new gene targets in malignant mesothelioma. This has identified genes that when inhibited, affect proliferation and drug sensitivity in malignant mesothelioma cells. In two cases this has identified targets with histopathological subtype-specific effects. These data suggest that RNAi-based screens have the potential to identify targets for further pre-clinical development in malignant mesothelioma. The aim of this project is to further characterise novel targets

A scientist with dark hair, wearing a white lab coat and white gloves, is working in a laboratory. She is holding a green spray bottle in her right hand and a clear plastic bottle in her left hand. The background shows laboratory equipment and shelves with various bottles.

Cancer Institute NSW Translational Program Grants - Translating malignant mesothelioma research into better outcomes for patients and their families

van Zandwijk N, Reid G, Vardy J, Kao S, Pavlakis N.

This grant brings together an experienced multidisciplinary research team dedicated to improving the health outcomes for patients with mesothelioma. The research projects will provide greater opportunities for more efficient prevention and better outcomes for mesothelioma patients. Part 1 of the project will describe the nature of the current Australian malignant mesothelioma epidemic and draft guidelines for the diagnosis and treatment of malignant mesothelioma. Part 2 will develop new tools for diagnosis, for prediction of prognosis and response to therapy. Part 3 will investigate new drugs by exploiting increased knowledge of the molecular characteristics of malignant mesothelioma and part 4 will address 'quality of life' of malignant mesothelioma patients. Together these four parts provide great opportunities for more efficient prevention and better outcomes for malignant mesothelioma patients.

and chemotherapy combinations that potentiate drugs already in use. The identification of new and subtype-specific therapies will lead to improved outcomes for mesothelioma patients.

NON-PEER-REVIEWED SUPPORT



Biaggio Signorelli Foundation

In 2012 the Biaggio Signorelli Foundation (www.biaggiosignorelli.org.au) has continued to generously support major ADRI projects:

1. Development of National Guidelines for Mesothelioma

The Guidelines for the Diagnosis and Treatment of Malignant Pleural Mesothelioma have been developed to reduce the variability of care in Australia for mesothelioma patients. The ADRI has initiated the development of national guidelines as there were no specific guidelines for Australia for the diagnosis and treatment of malignant pleural mesothelioma. The guidelines have been developed in line with the National Health & Medical Research Council of Australia criteria and will be open for Public Consultation in January - February 2013.

2. Fellowship – (Dr Anthony Linton)

Dr Anthony Linton, an oncology fellow, has started his PhD at the ADRI in 2011 and he has continued to work on biomarkers and potential targets for new treatment approaches for mesothelioma. In 2012 Dr Linton presented the results from his research at the International Mesothelioma Interest Group (iMig) conference in Boston. Dr Linton was awarded a Young Investigator Travel Award for his presentation on 'The prognostic role of expression of polo-like kinase₁ (PLK₁) and cell division control 2 (CDC₂), two potential therapeutic targets in malignant pleural mesothelioma.'

Miss Subothini Srikanan

3. Fellowship – (Casey Wright)

Casey Wright submitted her PhD in early 2012 entitled "Genomic characterisation of asbestos-related lung cancer" at The Prince Charles Hospital in Brisbane where she was a recipient of an NHMRC Biomedical Postgraduate Scholarship. Since starting at ADRI, Casey has been investigating the potential of long non-coding RNAs (lncRNAs) to serve as biomarkers in malignant pleural mesothelioma. Casey was awarded a Vojakovic Fellowship and presented her research findings on 'The expression of long noncoding RNAs in malignant pleural mesothelioma' at the International Mesothelioma Interest Group (iMig) conference in Boston in September 2012.



ADFA – Fellowship Cheng YY.

During 2012 the Asbestos Diseases Foundation of Australia (ADFA) awarded ADRI a further funding (\$10,000) to support Dr Yuen Yee Cheng's research into malignant mesothelioma. Dr Cheng presented the results from her research at the International Mesothelioma Interest Group (iMig) conference in Boston in September 2012. Dr Cheng was awarded a Young Investigator Travel Award for her presentation on 'ZIC₁ acts as a tumour suppressor gene and is silenced in malignant pleural mesothelioma.'



CSR – Biobank

In 2012, CSR Limited continued to support ADRI's Biobank. This invaluable collection provides ADRI's research team with a range of specimen types, including: tissue, plasma, serum, buffy coat and pleural fluid proteins. The collection of samples continues to be a formidable task. The Biobank's clinical database is being managed and maintained by an experienced team who collect and accurately document every sample. Thanks to CSR's support the Biobank continues to grow and is an important resource for the ADRI's on-going research program.

Merck KGaA Cilengitide: Pre-clinical studies in Malignant Mesothelioma

Cilengitide, a cyclic RGD peptide derivative, is an antagonist of the $\alpha v\beta 3$ and $\alpha v\beta 5$ integrins with clinical application in the treatment of glioblastoma and other solid tumours. The study aimed to characterise the expression of integrin subunits and receptors in malignant mesothelioma cell lines and to determine the effects of cilengitide treatment on malignant mesothelioma cell biology, both in vitro and in vivo.



We would like to thank James Hardie Industries SE who has again contributed \$500,000 to the ADRI so that we can continue to conduct medical research into the diagnosis and treatment of asbestos-related diseases.

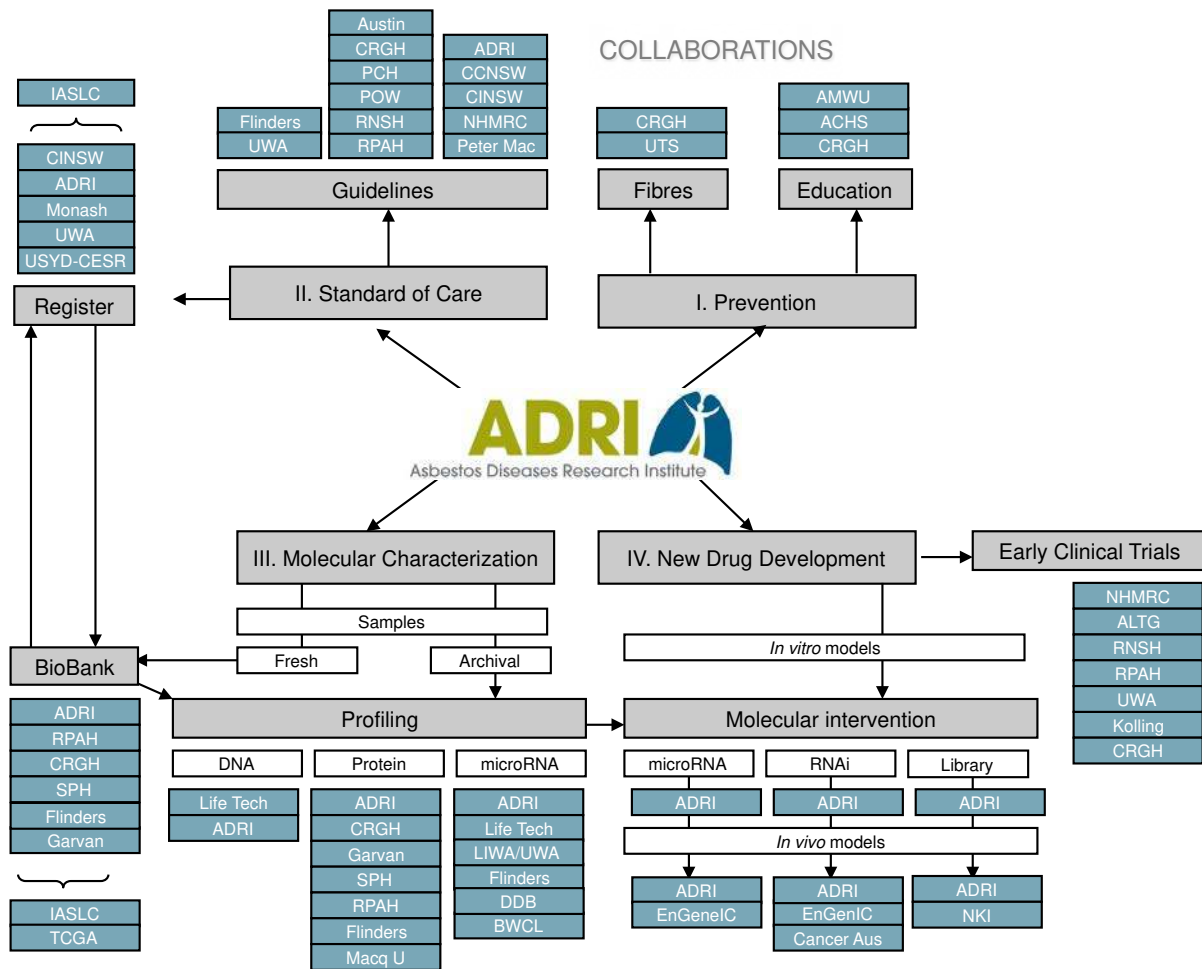
Astellas: Preclinical studies of the survivin suppressant YMI55 in mesothelioma

Survivin is a protein that is normally expressed during development and aberrantly re-expressed in many cancers. As this protein is not expressed in normal adult tissue, it represents a target for cancer therapy. Astellas have developed a compound, YMI55, that suppresses transcription of survivin and has anti-tumour effects in a range of cancer types. In collaboration with Astellas, we are investigating the effects of YMI55 in pre-clinical models of mesothelioma.

ANZ Trustees Foundation - Swift Family Bequest & Mr Jim Tully Fellowship Kirschner M.

The research of Dr Michaela Kirschner is co-supported by the Swift Family Bequest & Mr Jim Tully Fellowship. The main focus of Dr Kirschner's work at the ADRI is to investigate whether microRNAs can be detected in the blood of mesothelioma patients. By assessing the microRNA content of blood from mesothelioma patients a number of microRNAs have been identified that may act as a marker of diseases. For her research Dr Kirschner's was awarded the Concord Repatriation General Hospital Early Career Researcher Prize 2012 for presentation on 'Circulating miR-625-3p: a potential blood-based biomarker for malignant pleural mesothelioma' and the Early Career Best Poster Presentation Basic/Biomedical at the 2012 Sydney Cancer Conference.





ACHS	Australian Council of Health Standards
ADRI	Asbestos Diseases Research Institute
ALTG	Australasian Lung cancer Trials Group
AMWU	Australian Manufacture's Workers Union
Austin	Austin Hospital
BWCL	Bill Walsh Cancer Lab
Cancer Aus	Cancer Australia
CCNSW	Cancer Council of NSW
CINSW	Cancer Institute NSW
CRGH	Concord Repatriation General Hospital
DDB	Dust Diseases Board of NSW
EnGenIC	EnGenIC Ltd
Flinders	Flinders University
Garvan	Garvan Institute of Medical Research
IASLC	International Association for the Study of Lung Cancer
Kolling	Kolling Institute

Life Tech	Life Technologies™
LIWA	Lung Institute of Western Australia
Macq Uni	Macquarie University
Monash	Monash University
NHMRC	National Health & Medical Research Council
NKI	Netherlands Cancer Institute
Peter Mac	Peter MacCallum Cancer Centre
PCH	Prince Charles Hospital
POW	Prince of Wales Hospital
RNSH	Royal North Shore Hospital
RPAH	Royal Prince Alfred Hospital
SPH	Strathfield Private Hospital
TCGA	The Cancer Genome Atlas
USYD-CESR	University of Sydney, Cancer Epidemiology and Services Research
UTS	University of Technology Sydney
UWA	University of Western Australia

Dr Michaela Kirschner



PEER-REVIEWED PUBLICATIONS

2013 (Epub 2012)

1. **Kao SC**, Vardy J, Harvie R, Chatfield M, **van Zandwijk N**, Clarke S, Pavlakis N. Health-related quality of life and inflammatory markers in malignant pleural mesothelioma. *Support Care Cancer* 2013 Mar;21(3):697-705. Epub 2012 Aug 31.
2. Cheng ASL, Li MS, Kang W, **Cheng VY**, Chou J-L, Lau SS, EK, Yu J, Huang TH, To KF, Chan MV, Sung JY, Chan FKL. *Helicobacter pylori* Causes epigenetic dysregulation of foxd3 to promote gastric carcinogenesis. *Gastroenterology*: 2013; 144(1):122-133. Epub 2012 Oct 8.
3. **Kao SC**, Vardy J, Chatfield M, Corte P, Pavlakis N, Clarke C, **van Zandwijk N**, Clarke S. Validation of Prognostic Factors in Malignant Pleural Mesothelioma: A Retrospective Analysis of Data From Patients Seeking Compensation From the New South Wales Dust Diseases Board. *Clin Lung Cancer*. 2013 Jan; 14(1):70-7. Epub 2012 Jun1.

2012

4. **Linton A**, **Kao S**, Vardy J, Clarke S, **van Zandwijk N**, Klebe S. Immunohistochemistry in the diagnosis of malignant pleural mesothelioma: Trends in Australia and a literature review. *Asia Pac J Clin Oncol*. 2012 Nov 21. [Epub ahead of print]
5. **Kao SC**, Lee K, Klebe S, Henderson D, McCaughan B, Vardy J, Clarke S, **van Zandwijk N**. Excision repair cross complementation group I and thymidylate synthase expression in mesothelioma patients. *Clin Lung Cancer* 2012: Oct 16. [Epub ahead of print]
6. **Kao SC**, Clarke S, Vardy J, Corte P, Clarke C, **van Zandwijk N**. Patterns of care for

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Dr Steven Kao

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CONFERENCE PRESENTATIONS

1. **Reid G**. The microRNA miR-16 is a novel tumour suppressor gene in malignant pleural mesothelioma. Sydney Cancer Conference 2012. Sydney 26-28th September 2012
2. **van Zandwijk N** Mesothelioma in Australia. 4th Chinese-German Lung Cancer Forum. Dresden, Germany 16 September 2012
3. **Linton A**. The prognostic role of expression of polo-like kinase₁ (PLK₁) and cell division control 2 (CDC₂), two potential therapeutic targets in malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012. (Awarded a Young Investigator Travel Award)
4. **Reid G**. The survivin suppressant YM 155 selectively inhibits the growth of epithelioid malignant mesothelioma in vitro and in vivo. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012. (supported by a Travel Scholarship from Concord Hospital)
5. **Cheng YY**. ZIC₁ acts as a tumour suppressor gene and is silenced in malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012. (Awarded a Young Investigator Travel Award)
6. **Kirschner M**. Identification of MIR-625-3P as potential blood-based biomarker for malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012
7. **Reid G**. The microRNA MIR-16 is a novel tumour suppressor gene in malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012 (supported by a Travel Scholarship from Concord Hospital)
8. **Reid G** Exploring the microRNA expression in malignant pleural mesothelioma to identify biomarkers and molecular targets. Invited presentation, Queenstown Molecular Biology Conference ncRNA satellite, New Zealand, August 28-30th 2012.
9. **Kirschner M**. Circulating miR-625-3p: a potential biomarker for malignant pleural mesothelioma. Australian Lung Cancer Conference. Adelaide 23-25 August 2012 (ALCC Travel Grant)
10. **van Zandwijk N** How does MDT keep abreast of Guidelines – Mesothelioma. Australian Lung Cancer Conference. Adelaide 23-25 August 2012
11. **Reid G**. The microRNA miR-16 is a novel tumour suppressor gene in malignant pleural mesothelioma. Australian Lung Cancer Conference. Adelaide 23-25 August 2012
12. **Cheng Y**. ZIC1 acts as a tumour suppressor gene and is silenced in malignant pleural mesothelioma. Australian Lung Cancer Conference. Adelaide 23-25 August 2012
13. **van Zandwijk N**. Australian Mesothelioma Registry. Australian Lung Cancer Conference. Adelaide 23-25 August 2012



14. **Kirschner MB**, Cheng YY, Badrian B, Creaney J, Edelman JJB, Musk AW, Robinson BWS, Klebe S, van Zandwijk N, Reid G. Assessment of circulating miRNAs as potential biomarkers for Malignant Pleural Mesothelioma (MPM) 3rd European Lung Cancer Conference. Geneva, Switzerland 18-21 April 2012 (Awarded an ELCC Travel Grant)
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5. **Reid G**. Commonly used mesothelioma cell lines exhibit loss of mesothelial morphology and markers, but retain microRNA expression patterns of native tumours. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012
6. **Wright C**. The expression of long noncoding RNAs in malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012. (awarded a Vojakovic Fellowship)

POSTER PRESENTATIONS

1. **Kirschner MB**, Cheng YY, Badrian B, Kao SC, Creaney J, Edelman JJB, Armstrong NJ, Valley MP, Musk AW, Robinson BWS, McCaughan BC, Klebe S, Mutsaers SE, van Zandwijk N, Reid G. Circulating miR-625-3p as potential biomarker for malignant pleural mesothelioma. Sydney Cancer Conference 2012. Sydney 27-28 September 2012 (Awarded best poster prize for Early Career Researcher)
2. **Wright CM**. The role of long non-coding RNAs in Malignant Mesothelioma. Sydney Cancer Conference 2012. Sydney 27-28 September 2012
3. **Cheng NC**, Goodman SL, van Zandwijk N, Reid G. Cilengitide inhibits invasion of malignant pleural mesothelioma cells expressing high levels of integrin avb3. Sydney Cancer Conference 2012. Sydney 27-28 September 2012
4. **Kao SC-H**. Novel plasma proteins associated with prognosis in malignant pleural mesothelioma. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012
7. **Wright C**, Kirschner M, Cheng Y, van Zandwijk N, Reid, G. The expression of long noncoding RNAs in Malignant Pleural Mesothelioma. Australian Lung Cancer Conference. Adelaide 23-25 August 2012. JTO Supplement 7;S188.
8. Edelman JJB, **Kirschner MB**, Bannon PG, Fraser JF, Kritharides L, Reid G, Valley MP. Mitochondrial DNA in the circulation after CABG. Australasian Society of Cardiac and Thoracic Surgeons, Annual Scientific Meeting, Brisbane, 16-19 August 2012; *Heart Lung Circ* 2012; 21 Suppl.1: S281
9. **Kirschner MB**, Kao SC, Edelman JJB, Armstrong NJ, Velle MP, van Zandwijk N, Reid G. Effect of haemolysis on levels of circulating microRNAs. Quantitative Real-Time PCR for Molecular Diagnostics Conference – 16-17 Feb 2012 San Francisco

INVITED PRESENTATIONS

1. **Nico van Zandwijk**. New data about the third wave of asbestos related diseases in Australia. The Bathers Pavilion, Mosman. 27th November 2012
2. **Nico van Zandwijk**. Health implication of being exposed to asbestos. Launch of the Model Asbestos Policy for NSW Councils.



Marrickville Council, Petersham, 26th November 2012

3. **Kao S.** Cutting edge advances into the early detection of mesothelioma. Occupational Melanoma and Asbestos Related Diseases Free Public Seminar, Gold Coast Convention Centre 17 November 2012.
4. **Reid G** Exploring the microRNA expression in malignant pleural mesothelioma to identify biomarkers and therapeutic targets. The Kolling Institute. Sydney 26th September 2012
5. **Nico van Zandwijk.** Asbestos diseases worldwide. ‘Asbestos – a wolf in sheep’s clothing.’ to a delegation from the Vietnamese General Confederation of Labour (VGCL) organized through Union Aid Abroad APHEDA, ADRI, 8th August 2012
6. **Nico van Zandwijk.** Asbestos and disease. ETU (Electrical Trades Union) Conference, Brighton-le-Sands, 29 May 2012
7. **Glen Reid.** MicroRNA biomarkers for malignant pleural mesothelioma. Informal Seminar. The Netherlands Cancer Institute, Amsterdam, 10th July 2012
8. **Nico van Zandwijk.** Overview of Malignant Mesothelioma. Kylie Johnston Lung Cancer Network Forum- An initiative of the Australian Lung Foundation- Canberra, 24th May 2012
9. **Anthony Linton.** A Wolf in Sheep’s Clothing: Industrial use of asbestos is dividing the world and continues to pollute our future. Cancer in the Workplace Forum. Melbourne, 3rd May 2012
10. **Nico van Zandwijk** – Five Dock Rotary Club 26th March 2012

Mrs Jenny Weismantal

AWARDS

1. **Michaela B Kirschner** Concord Repatriation General Hospital Early Career Researcher Prize 2012 for presentation on ‘Circulating miR-625-3p: a potential blood-based biomarker for malignant pleural mesothelioma’.
2. **Michaela B Kirschner** Early Career Best Poster Presentation Basic/Biomedical. Sydney Cancer Conference 2012
3. **Steven Kao** The ‘2012 Premier’s Award for Outstanding Cancer Research Scholar’ awarded at the Cancer Institute NSW’s annual cancer awards - 20th July 2012

TRAVEL AWARDS

1. **Yuen Yee Cheng** Young Investigator Travel Award 11th International Mesothelioma Interest Group (iMig) 2012 Conference, 11-14 September 2012, Boston USA
2. **Anthony Linton** Young Investigator Travel Award 11th International Mesothelioma Interest Group (iMig) 2012 Conference, 11-14 September 2012, Boston USA
3. **Glen Reid** Travel Scholarship from Concord Hospital, 11th International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012.
4. **Casey Wright** Vojakovic Fellowship Travel Grant. International Mesothelioma Interest Group (iMig) 2012. Boston 11-14 September 2012.
5. **Michaela B Kirschner** Travel Grant, Australian Lung Cancer Conference. Adelaide 23-25 August 2012
6. **Michaela B Kirschner Travel Grant**, 3rd European Lung Cancer Conference. Geneva, Switzerland 18-21 April 2012

VISITORS



VISITORS

7 March 2012 - Dr Eun Kee Park, Korea

Over the past few years Professor Nico van Zandwijk had been a key note speaker at the Asian Asbestos Initiative (AAI) International Seminars held in November each year. These seminars were established in reaction to the increasing consumption of asbestos in some Asian countries; which is the result of unregulated asbestos importation and use. Despite the concerns of the global asbestos-related diseases epidemic and Asia's growing importance in the world, data on current asbestos use and asbestos-related diseases in Asia remains limited. Through the exchange of ideas at the Asian Asbestos Initiative (AAI) International Seminars ADRI has been visited by Dr Eun Kee Park and his colleague Dr Kim, GunHyung from Kosin University College of Medicine, Seo-gu, Busan, Korea.

24th July 2012 - Enfield-Croydon Park Sub-Branch of the RSL

The Enfield-Croydon Park Sub-Branch of the RSL is a small local club supporting the Inner West of Sydney. Mr John Thornton (President), Mr Ben Fisher (Senior Vice President), and Mr Ronny More (Vice President) visited the ADRI and generously donated \$30,000 to ADRI to support research into asbestos-related diseases.

Because of its unique thermal and mechanical properties asbestos was also used by the armed services. The Navy used it in pipe lagging and insulation and it was also present in many of other products endangering the lives of servicemen and women of the Army and Air Force.

In the past, little attention had been paid to asbestos induced cancers in comparison with other cancers. Through translational research using all the unique opportunities of a modern research facility, the ADRI research staff aim to improve the diagnosis and treatment of asbestos-related diseases. The quality of life of asbestos victims and the development of effective preventive measures for people exposed to asbestos are other important study targets. ADRI thanks the Enfield-Croydon Park Sub- Branch of the RSL for their most generous support of research into asbestos-related diseases.

3 August 2012- the Vietnamese General Confederation of Labour

An initiative from Union Aid Abroad APHEDA arranged for the Vietnamese General Confederation of Labour (VGCL) to visit the ADRI. The delegation included: Mr. Dang Ngoc Tung, VGCL President; Mr. Tran Van Ly, Member of Presidium, Director of Organizing Department, VGCL; Mrs. Hoang Thi Thanh, Member of the Executive Committee, Director of International Department, VGCL (Associate Professor. Dr. Hoang Thi Thanh is a pediatrician, and formerly President of the Vietnam National Union of Healthcare Workers); Mr. Ngo Minh Dong, Member of the Executive Committee, Deputy Chief of VGCL Office, in charge of Southern Vietnam; Mr. Chau Nhat Binh, Deputy Director, International Department, VGCL; and two delegated from APHEDA, Ms Zoe Roberts and Mr Peter Jennings, Executive Officer.

Dr Michaela Kirschner and Mrs Yvonne Tully



2nd October 2012 - ANZ Trustees Foundation - Swift Family Bequest

Mr Andrew Swift and his wife Sabina, together with Mr Lachlan Haughey and his wife Kelly, visited the ADRI in October 2012 to learn first-hand the progress made by Dr Michaela Kirschner. Dr Kirschner is co-supported by the ANZ Trustees Foundation - Swift Family Bequest in honour of Mr Doug Swift who is currently living with an asbestos-related disease.

Dr Kirschner, the Swift Family Bequest & Mr Jim Tully Fellow, has identified a small RNA molecule, known as a microRNA, which is more abundant in the blood of people with mesothelioma than in healthy people. The findings bring scientists a step closer to being able to diagnose mesothelioma earlier than is currently possible.

It is hoped that further studies will prove that microRNAs in plasma are accurate enough for the diagnosis of malignant pleural mesothelioma; this will lead to the development of a diagnostic test for routine clinical use. This test would then represent a relatively simple way to circumvent the problems associated with obtaining a tissue biopsy. For a patient this would mean that appropriate treatment could be instituted at an earlier stage.

Dr Kirschner was awarded the Concord Repatriation General Hospital Early Career Researcher Prize 2012 for presentation on 'Circulating miR-625-3p: a potential blood-based biomarker for malignant pleural mesothelioma' and the Early Career Best Poster Presentation Basic/Biomedical at the 2012 Sydney Cancer Conference.

30 October 2012 - Professor Dirkje Postma

Dirkje Postmas is Professor of Pulmonary Medicine, University of Groningen & The University Medical Centre of Groningen, The Netherlands. She visited the ADRI whilst on leave at the Woolcock Institute of Medical Research. Professor Postma is an internationally recognised pathophysiologist in the field of asthma and COPD (Chronic Obstructive Pulmonary Disease). She has contributed to major advances in the treatment of asthma.

24-29 November 2012 - Mrs Yvonne Tully

Mrs Tully is a co-supporter of the Swift Family Bequest & Mr Jim Tully Fellow and joined the ADRI team again this year for Asbestos Awareness Week. Mrs Tully attended the launch of 'Betty', the ADRI model house in Customs House Square on Sunday 25th November and also the inaugural national candle light tribute held opposite the Sydney Opera House, to honour the many Australians who have been victims of asbestos. She also joined the team to welcome 'Betty' when the ADRI model house visited the Institute on its way north to Gosford.

5th December 2012 – Mr Leo and Mrs Rose Vlemmings,AMSG

During the year the Asbestosis and Mesothelioma Support Group (Gold Coast/Tweed) (AMSG) conducted a raffle to raise funds to support research into asbestos related diseases. The raffle raised over \$1,000.00 and AMSG Vice President, Mr Leo Vlemmings and his wife Rose visited the ADRI in December 2012 and presented a cheque for \$1,500.00 to Professor Nico Van Zandwijk. ADRI would like to thank Mr Nick Bos, President, Mr Leo Vlemmings and all the members of the AMSG for their most generous support.

Mr Lachlan Haughey (Client Manager, ANZ Trustees Foundation), Mrs Kelly Haughey, Dr Michaela Kirschner (The Swift Family Bequest & Mr Jim Tully Follow), Mrs Sabina Swift and Mr Andrew Swift (Founder of the Swift Family Bequest)



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A ViiA 7 Real-Time qPCR System which helps to identify genes important in mesothelioma biology. Enfield-Croydon Park Sub-Branch's donation helped purchase this important qPCR System



In December 2012 Mathew Klintfält, Ben Langston and Tom Ferguson set out to climb Mount Aconcagua in Argentina, the highest mountain outside of the Himalayas at a height of 7000 metres. These three mates thought to experience what it might be like to 'fight to breathe' in the same way a sufferer of malignant mesothelioma does. This they did as at very high altitude, also encountering a blizzard with winds of over 110 km which prevented them going any higher than 5,500m.

Mathew's mother Carol has mesothelioma and with their 'Fight to Breathe' campaign Mathew, Benny and Tom hoped to help young people understand the dangers of handling and being exposed to asbestos, most commonly through DIY renovation work.

Through the Fight to Breathe campaign Mathew, Benny and Tom have generously raised nearly \$5,000 for the ADRI. The Fight to Breathe campaign listed on Everydayhero will continue to provide opportunities for young people to work for, to run for, and to climb for a cure for this terrible, yet preventable disease.

Ms ELAINE TOLLEY

On the 11th November 2011 Ms Elaine Tolley died from malignant mesothelioma, she only was 69. Before her death, Elaine told her friend Mrs Pam Taylor that she felt that she had achieved something substantial and very important by bequeathing funds to medical research. Elaine's generous bequest to the ADRI will enable us to continue our work and to help give new hope to sufferers and their families of asbestos-related diseases from around Australia and across the world.

Many years ago Elaine had been exposed to asbestos through washing her husband's work clothes. Like so many others, she did not know this would be fatal. Elaine will be long remembered. Her good friend Pam said: 'Elaine was the best joker and always saw the funny side of things,' as can be seen in the lovely photograph above of Elaine enjoying Melbourne Cup activities at Brian King Gardens in 2009. Elaine's bequest is an everlasting gift that will benefit many others.

We would like to thank each of our supporters who have so generously donated to our research and to those who continually support us year after year. We greatly appreciated your commitment which is often given at a very difficult time.


Your support enables us to continue our research towards the prevention and amelioration of this insidious man made disease - malignant mesothelioma and other asbestos-related diseases.

Ms Elaine Tolley



IN MEMORY OF:

Barbara, Bernie, Bill, Bob, Brian,
Canute (Ken), Carmen, Cecil,
Celestina, Cyril, Daniel, David,
Dave, Dennis, Derek,
Desmond , Dianne , Dimitrios
(Jim), Elaine , Elwyn , Erik, Finola,
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