arc

australian respiratory council

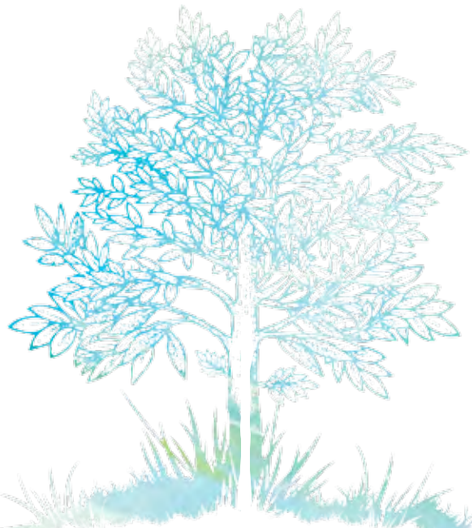
prevention and cure of respiratory illness



2012 Annual Report No. 99

Celebrating 100 years in 2013

australian respiratory council
prevention and cure of respiratory illness



Our Mission

To develop and support innovative and effective approaches to research and development in lung health and to improve lung health in communities, with emphasis on disadvantaged groups.

Our Patrons



Her Excellency Professor Marie Bashir AC, CVO
Governor of New South Wales.



Sir Nicholas Shehadie AC, OBE.

Our Vision

- Continue to build expertise in respiratory health
- Foster innovation in respiratory health research
- Deliver and measure positive impacts to communities and research
- Enhance ARC's role in the country as a unique non-government organistaion in the area of lung health
- Advocate to improve respiratory health, particularly in relation to TB and smoking at state, national and international levels

www.thearc.org.au

ARC confirms that in the pursuit of its mission and vision it has no tobacco exposure in regard to direct stocks or managed funds exposures held within its Investment Portfolio.

ARC welcomes feedback. Please send any feedback or complaints to arc@thearc.org.au or write to Executive Officer, Australian Respiratory Council, GPO Box 102 Sydney, NSW 2001.

ARC confirms its commitment to full adherence to the ACFID Code of Conduct.

Complaints relating to a breach of the ACFID Code can be made to the ACFID Code of Conduct Committee www.acfid.asn.au

ACFID

Australian Respiratory Council (ARC) is a member of the Australian Council for International Development (ACFID) and is a signatory to the ACFID Code of Conduct. The Code requires members to meet high standards of corporate governance, public accountability and financial management.

International Union Against Tuberculosis and Lung Disease
Health solutions for the poor

Australian Respiratory Council (ARC) is a Constituent Member of the International Union Against Tuberculosis and Lung Disease (IUATLD). The Union has as its mission the prevention and control of tuberculosis and lung disease, as well as related health problems, on a world wide basis, with a particular emphasis on low income countries.

President's Report

David Macintosh AM



The Australian Respiratory Council has clearly defined its direction and purpose and this is evidenced by the work done by our great organisation.

In 2013, the Australian Respiratory Council (ARC) celebrates 100 years of service as a champion for public health initiatives in Australia. We hope you will share the celebrations with us as we both reflect on past achievements and continue the important advocacy work of bringing focus to tuberculosis and respiratory conditions affecting marginal communities in Australia and our region, the Asia Pacific.

In capturing the significance of activity over the previous 12 months, I draw your attention to three major achievements in the fields of TB and respiratory disease in Australia in 2012: the launch of the Lung Health Alliance, a collective of national respiratory not-for- profit organisations working together to improve the lung health of individuals and communities (featured on page 14); the successful ARC bid to host the 5th Union Asia Pacific Regional Conference on TB, Lung Health, Tobacco and HIV in Sydney 2015. Details on each of these achievements are highlighted in this annual report.

Increasing Australia's engagement in the Region - Bid to host the 5th Union Asia Pacific Region Biennial Conference in Sydney – 2015

In October 2012, the Australian Respiratory Council successfully presented its bid to host the 5th Union Asia Pacific Region Biennial Conference. The regional conference will be held in Sydney in 2015 and is expected to attract between 500 and 800 delegates. The Union Asia Pacific Region Conference is held under the auspices of the Asia Pacific Region of the International Union Against Tuberculosis and Lung Disease. This meeting will provide an opportunity for researchers, clinicians, government, the workforce and civil society from Australia and abroad to come together to focus, network, develop and progress initiatives in TB and Lung disease. It is an exciting time to be involved in lung health in our region.

5th Asia-Pacific Region Conference of the International Union Against Tuberculosis and Lung Disease
Sydney 2015

Investing in the Future: Research in Tuberculosis and Respiratory Health

The ARC Research Committee was delighted to have Dr Greg Fox, a young TB and respiratory clinician and researcher associated with the University of Sydney, Royal Prince Alfred Hospital and the Centenary Institute, join in 2012. Greg has been actively engaged in TB research in Vietnam over recent years.

We were pleased to hear from Dr Paul Crellin, whom ARC awarded the Harry Windsor Grant in 2011, that he has received $630,000 from the National Health and Medical Research Council to continue his work looking for new TB treatments. The funding received from ARC allowed Dr Crellin and his team to generate the additional preliminary data which underpinned his successful application. We wish him and his team the very best in their endeavours. In 2012, Dr Bernadette Saunders from the Mycobacterial Research Division, Centenary Institute, was awarded the Harry Windsor Research Grant for her research project titled, *Micro-particles and Micro-RNAs Modulate the Immunological Response to Tuberculosis Infection*. Through an increased understanding of the immune response to TB, Dr Saunders and her team are working to inform the development of new treatments for tuberculosis.

The Ann Woolcock Fellow 2010 – 2014, Dr Jodie Simpson will conclude her fellowship mid 2014. Dr Simpson's work on the *Characterisation and Treatment of Innate Immune Dysfunction in Older People with Obstructive Airway Disease*, is contributing to an increased understanding and improved treatment of people with obstructive airways disease. Dr Simpson is based at the National Health and Medical Research Centre for Respiratory and Sleep Medicine, Hunter Medical Research Institute John Hunter Hospital, Newcastle.

The Australian Respiratory Council is delighted to be supporting these research activities and detailed reports on each of these projects follow within the Annual Report.

Addressing issues at hand: Australian Respiratory Council's Project Work in the Asia Pacific Region

Core to the Australian Respiratory Council's approach to project work is identification and investment in activities that promote sustainable solutions through partnerships. These activities predominantly focus on education and empowerment of communities in need. We were pleased to have had the opportunity in 2012 to support government health agencies, Indigenous groups and in-country based non government organisations (NGOs).

Building Health System Research Capacity - Vietnam

Given the success of MECOR (Methods in Clinical and Operational Research) 2011, the Australian Respiratory Council supported the expansion of the program in Hanoi, Vietnam in 2012. In its expanded version, this staged education program aims to develop research capacity in future leaders in respiratory public health in Vietnam and Cambodia.

This capacity will include the ability to interpret and use published evidence to guide policy and disease management along with the ability to generate research ideas and design and implement studies to investigate them. Professor Guy Marks again led a collaboration which included the American Thoracic Society (ATS), the University of Sydney, the National Lung Hospital (Vietnam), the Vietnam Society for Tuberculosis and Lung Diseases and Ministry of Health. The National TB and Leprosy Program from Cambodia (CENAT) supported the inclusion of 7 participants from Cambodia. Professor Christine Jenkins presented the outcomes at the ARC Annual General Meeting in May 2012, reporting that a total of eleven research proposals were developed as a result of the course and that students felt that their skills had improved substantially as a result of the course. Vietnam and Cambodia are among the 22 high TB burden countries.

Combating TB in Cambodia

2012 marks the fourth year of the Australian Respiratory Council's support for the Cambodian Anti-Tuberculosis Association's (CATA) very successful TB Program. We were again pleased to have the Thoracic Society of Australia and New Zealand (TSANZ) partner with us to co-fund this project which aims to reduce the incidence of TB in Cambodian factory workers and the elderly. Community education, TB treatment support and TB case detection are the main strategies being utilised in the project. In 2012, education was extended to Pagodas in the Villages, not just the health centres. Achieving sustainability in the post global financial crisis continues to be a challenge, ARC continues to seek support for this important work on CATA's behalf.

Technical Support for TB Programs in the Asia Pacific - collaboration with the World Health Organisation (WHO), the Centre for Disease Control (CDC), the Pacific Island Health Officers Association (PIHOA) and the Secretariat of the Pacific Community (SPC)

The annual conference of the Pacific Island TB Controllers Association (PITCA) was combined with the biennial Pacific Stop TB meeting, bringing CDC, WHO, PIHOA and SPC together as collaborators for this first time event in Palau in May 2012. All twenty-two Pacific Island countries and territories were successfully engaged in the meeting which provided the perfect forum for the launch of ARC's TB and Diabetes flipchart. In addition to this, ARC was invited to host a training workshop for nurses and related workers which then featured training in the implementation of the newly developed TB and Diabetes Educational Resources. The ARC has since been in discussion with the Union Singapore Office in regards to printing and dissemination of this resource regionally.

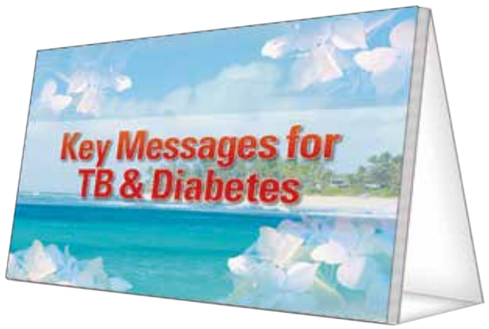


Throughout 2012, the Pacific Island TB Nurses Network has again been the focus of the collaborative efforts of CDC, the US National Tuberculosis Controllers Association (NTCA), and PIHOA and the provision of technical support to TB nurses and related workers within the Northern Pacific Region. This continues in the form of monthly Regional Case Management Teleconferences.



Key Messages for TB and Diabetes

The ARC TB and Diabetes flipchart, designed for use in Pacific TB programs and addressing Diabetes management was successfully launched in Palau in May 2012. The Australian Respiratory Council nurse consultant team, has undertaken the development of this resource in collaboration with the US Centers for Disease Control and Prevention, the Secretariat of the Pacific Community and the National TB Programs of Micronesia and the Marshall Islands. The purpose of the tools (a flip chart and patient education booklet) is to support improved management of patients with co-morbid TB and Diabetes. Diabetes is a risk factor for progression to TB disease once someone has been infected with TB. Diabetes rates are increasing throughout the world. Current estimates in the US and Australia indicate that it affects approx 5% of population, however estimates in the Pacific suggests rates are as high as 40% of population in some countries/territories. An extended report on this work is included on page 19 of the Australian Respiratory Council's Annual Report.



Focus Australia - Building Capacity in Indigenous Health Workers through Cultural Exchange

The Be our Ally Beat Smoking Study (BOABS) project was awarded a project grant to support a cultural exchange between Aboriginal research officers from the Kimberly region of Western Australia with their Maori counterparts in New Zealand. The project was designed to provide an opportunity to share and learn about indigenous specific tobacco cessation techniques and implement anti-tobacco programmes in indigenous communities. The exchange took place in November 2012 and we look forward to hearing of the future achievements resulting from this exchange.

Finances

In 2012, the Australian Respiratory Council began to stem the impact of the global financial crisis (GFC) on its investment portfolio. Assets were re-valued in positive figures, at $35,350 having recovered the previous valuation loss of $381,739 in 2011.

The ARC's operating loss in 2012 was $116, 282 against a projected budgeted loss of $157,034. This was achieved by trimming operating costs, constraining project expenditure and again focusing on strategic management of the investment portfolio. The strategic management of the investment portfolio has resulted in the investments continuing to deliver a steady cash flow of $239,499 in 2012 (compared to $248,899 in 2011). Australian Respiratory Council reported a Net Loss of $80,932 (compared to $504,849 in 2011). The diligence and commitment of the Finance team, lead by, Robert Horsell and supported by Peter Gianoutsos and also ARC staff, has been fundamental to achieving this result.

Acknowledgements and thanks

I would like to welcome Ian Ramsay and Robyn Johnson who joined the Board of ARC in 2012. Ian returns following his recovery from a recent illness and we are delighted to again benefit from his contribution. Robyn has extensive background in business management and event planning and we are also delighted to have her on board.

The continued commitment and contribution of the Australian Respiratory Council's Directors remains one of the great pleasures and strengths of being involved with the Australian Respiratory Council. At the risk of sounding repetitive, I extend my deep appreciation and personal thanks to them: Paul Seale and Peter Gianoutsos as Vice-Presidents; Robert Horsell as Finance Director; Iven Young as Chair of the Research Committee and Amanda Christensen, Chair of the Australian Respiratory Council's Project Advisory Group.

Thank you also to the members of the Research Committee and Projects Advisory Group who have given their valuable time to support and guide the Australian Respiratory Council on its mission. Special thanks also are extended to Pam Banner and Amanda Christensen whose sustained efforts enable the Australian Respiratory Council to maintain its contribution to health worker education and training in the Pacific.

Again a sincere thank you to the Australian Respiratory Council's donors without whose commitment and generosity through bequests and regular giving, the work in respiratory health would not continue. We hope that our Website and Newsletters have gone someway to demonstrating the impact that your contribution is making and gratitude with which it is received.

Gratitude is also extended to the staff of the Australian Respiratory Council. Kerrie Shaw, Judy Begnell, who has once again produced this magnificent annual report, and Miranda Juhl who have continued to develop, implement and support all activities of the Council.

We cannot let a year go by without acknowledging the hard work and commitment of Audrey Tonkin, who continues to soldier on against adversity in a voluntary capacity with the Australian Respiratory Council. Our thanks are extended to Heath McLaren and his team at Macquarie Bank for their financial guidance in 2012. Thanks also to David Conroy and Roy Chong for their expertise and assistance in meeting our annual auditing responsibilities.

In February this year Kerrie announced to the Board that she had accepted a clinical role with the NSW Department of Health. This was significant in a number of ways. Kerrie is a tremendous asset to any organisation and her skills, enthusiasm and commitment to the Australian Respiratory Council will be truly missed. The Board however unanimously decided, when formally advised, to offer Kerrie a position as a fellow board director. Kerrie was overwhelmed, shed tears of happiness and accepted. We wish Kerrie every success in her day job and thank her for the past and share her delight working with ARC in the future.

Life Governors

Congratulations to Professor Peter Gianoutsos and Robert Horsell OAM who were elected as ARC Life Governors at the Annual General Meeting, 23 April 2012. Both Peter and Robert currently serve on the ARC Board of Directors: Peter as a Vice President and Robert as our Finance Director. It's very pleasing to see the work and significant contribution of these two gentleman duly acknowledged in this way. It was a big year for Robert, who was also presented with the Medal of the Order of Australia for his philanthropic and community contributions in January 2012. Full citations on our new Life Governors are available on page 8.

Moving Forward in 2013

The year ahead promises to be another challenging, productive and exciting year for the Australian Respiratory Council. Our research program continues to support important investigations being undertaken by Australian medical researchers in tuberculosis and airway disease. The Australian Respiratory Council's involvement in Vietnam and Cambodia will continue with the extension of the MECOR program to level 3 studies, simultaneously training level 2 and new level 1 participants. The Australian Respiratory Council will continue to give support to the TB programs in Pacific Island Countries and Territories through PITCA and the Pacific Nurses Forum. We continue our support for the Bangladesh project which is investigating risk factors for Mutli-Drug Resistant TB in communities in Bangladesh; and are delighted to be supporting the Atoifi Adventist Hospital and James Cook University in their TB program collaboration for the East Kwaio district of the Solomon Islands.



Amanda Christensen has been a valued member of the Board for many years and as the Chair of our Projects Advisory Group. Indeed she is mentioned above and provides amazing service to our organisation. The wonderful news is that Amanda has agreed to a 12 month secondment from the NSW Department of Health to undertake the role as Executive Director of ARC for that period. We are indeed blessed with this outcome and as this report is going to print, Amanda is in Vietnam representing ARC at the IUATLD Asia Pacific Region meeting.

We look forward to working with our collaborators, old and new in what looks set to be another successful year for the Australian Respiratory Council.

Thank you all for your contribution.

David Macintosh AM
President



Governance

Board of Directors

AMANDA CHRISTENSEN

Dip Nursing



NSW TB Program Manager 1997-; various positions in public health for twenty two years including tuberculosis control for fifteen years. Appointed to the Board in 2001. Employed as the ARC Executive Director from April 2008 to May 2009. Chair of the Projects Advisory Group. Elected Life Governor of ARC in 2011.

CLINICAL ASSOCIATE PROFESSOR PETER GIANOUTSOS

MB, ChB (Univ of Otago), FRACP, FCCP



Senior Consultant Thoracic Physician (VMO) Dept of Thoracic Medicine RPAH 1971-; Member TSANZ, ATS, ACCP, BTS, ALF, MLS(NSW); Chairman RPA Medical Board 1989-1991; Member of Medical Board of NSW 1978-1982; Chairman UMPS Medical Expert Panel 2002 – 2007; Member of Board of Directors UMP 2000-2002. Appointed to the Board in 2006; Vice President. Elected Life Governor of ARC in 2012.

ROBERT HORSELL OAM

CPA



Medal of the Order of Australia 2012; Partner, R E Horsell & Co Public Accountants 1978-; Director, Cricket Australia 1997-2004, 2005- 2008; Chairman, Cricket NSW 1997-2008; Director, Bradman Foundation 1999-2005. Appointed to the Board in 1999; Chair of Finance Committee. Elected Life Governor of ARC in 2012.

ROBYN JOHNSON

GAICD



Conference Organiser with more than 20 years experience managing National and International conferences for not-for-profit associations, corporations and universities. Currently General Manager, Event Delivery at Business Events New South Wales. Appointed to the Board in 2012.

DAVID MACINTOSH AM

BBS (UTS), FCA



Member of the Order of Australia 2011; Chairman, The Macintosh Foundation, Macintosh Chair of Paediatric Respiratory Medicine - Endowed Chair 29 November 2005 in perpetuity; Benefactor since 2007, The Children's Hospital at Westmead; Member of Board of Governors and Chairman of the Finance Committee, Woolcock Institute of Medical Research 2000-2011; Director, The Australian Lung Foundation; Managing Director, Paynter Dixon Construction Group 2001- Present; Director of numerous private companies; thirty two years of senior management and director level in the transport and construction industries in Australia and Europe; Chairman, actively involved in the Surf Life Saving movement for over forty seven years years; Life Member, Long Reef Surf Life Saving Club Inc.; Distinguished Service Member and Chairman of the Expenditure Review Committee, Collaroy Surf Life Saving Club Inc. Appointed to the Board in 1997; President. Elected Life Governor of ARC in 2009.

IAN W. RAMSAY

LL.,B



Solicitor, Supreme Court of NSW; Member, Law Society of NSW; General Manager and Board Director, WorkCover NSW (1988-1997); Chairman, Dust Diseases Board of NSW (1988-1997); Member, National Occupational Health and Safety Commission (1988-1997); Chairman, Sporting Injuries Committee (1988-1997); Member, Joint Coal Board Health and Safety Trust (1993-1997). Board member November 2008 – February 2012 . Chair, of Centenary Celebration Committee. Reappointed to the Board November 2012.

PROFESSOR J PAUL SEALE

MBBS, PhD, FRACP



Professor of Clinical Pharmacology, University of Sydney 1992-; Pro-Dean, Faculty of Medicine, University of Sydney 1997-2003; Consultant Physician, Royal Prince Alfred Hospital 1980-; Deputy Director, Woolcock Institute of Medical Research; Member, Australasian Society for Clinical and Experimental Pharmacologists and Toxicologists; Past President, Thoracic Society of Australia and New Zealand; former Congress President, Asia Pacific Society of Respirology; former Chairman, NSW Therapeutics Advisory Group; Chair, TB Committee, Sydney South West Area Health Service; Member of NSW Health TB Advisory Committee. Appointed to the Board in 1997; Vice-President. Elected Life Governor of ARC in 2007.

CLINICAL PROFESSOR IVEN YOUNG

BSc (Med), MBBS, PhD FRACP



Senior Physician, Department of Respiratory and Sleep Medicine, Royal Prince Alfred Hospital (RPAH) 1991- 2009; Visiting Medical Officer, RPAH 1979-1985; Senior Staff Specialist in Respiratory Medicine, RPAH 1985-; Post Doctoral Fellow, University of California, San Diego 1976-1978; Research Fellow, University of Sydney 1974-1976; Respiratory Physician 1975-; Member, Thoracic Society of Australia and New Zealand; Member, American Thoracic Society; Member, European Respiratory Society; Senior Examiner, Australian Medical Council 1997-; elected to the Adult Medicine Division, Royal Australasian College of Physicians 2000-2001; Chairman, Division of Medicine, RPAH 2001-2009; Chair, Physicians Training Council, CETI 2010-. Appointed to the Board in 1998. Elected Life Governor of ARC in 2003. Chair of Research Committee.

Projects Advisory Group

Amanda Christensen (Chair)
NSW TB Manager,
NSW Health

Dr Vicki Krause
Director, Centres for Disease Control,
Northern Territory Health Services

David Macintosh
ARC President (ex officio)

Dr Graeme Maguire
Specialist Physician, Cairns Hospital, Dept of Medicine, Qld Health; Associate Professor of Medicine, James Cook University of Medicine

Sheila Simpson RN
TB Nurse, Liverpool Health Service

Dr Justin Waring
Consultant Physician, Respiratory and Tuberculosis Medicine, Perth Chest Clinic and Royal Perth Hospital

Roger Williams
Chief Operating Officer
NSW Aboriginal Health & Medical Research Council

Research Committee

Professor Carol Armour
Professor of Pharmacy, University of Sydney, Pro Vice Chancellor for Research, Sydney University; Member of National Asthma Expert Advisory Committee

Professor Judith Black
Professor Pharmacology, School of Medical Services, University of Sydney

Professor Peter Gibson
Staff Specialist, Respiratory Medicine Unit John Hunter Hospital

David Macintosh
ARC President (ex officio)

Clinical Professor Iven Young (Chair)
Senior Physician, Department of Respiratory and Sleep Medicine, Royal Prince Alfred Hospital

Dr Greg Fox
Respiratory physician, Project Co-ordinator Mycobacterial Group, Vietnam

Life Governors

1932	Hon George Frederick Earp, MLC
1934	Sir John Sulman
1934	Sir Nelson King
1934	Lady King
1966	Sir Harry Wyatt Wunderly
1996	Dr Keith Wellington Hills Harris
2003	Professor Noel Desmond Martin
2003	Clinical Professor Iven Young
2003	Professor Ian W Webster
2006	Emeritus Professor Charles Baldwin Kerr
2007	Professor J Paul Seale
2009	Mr David Hugh Macintosh AM
2011	Ms Amanda Christensen
2011	Dr Gavin Frost
2012	Mr Robert Horsell
2012	Clinical Associate Professor Peter Gianoutsos

Robert Horsell OAM recognised for Service to the Community



In the Australia Day 2012 honours, Bob was appointed as an OAM for services to the community. The outline of positions held in Bob's citation is testament to his support and dedication to cricket at Club, State and National levels over a period of 50 years.

A further recognition of his contribution to cricket and the community, is the naming in November 2012 of the grandstand at Waverley Oval as the "Phil O'Sullivan and Bob Horsell" stand.

ARC is proud to have the support of Bob as a Director and the benefit of his financial expertise.

Please see http://www.gg.gov.au/sites/default/files/files/honours/ad/ad2012/Media.pdf for the full citation.

Governance (continued)

Election of Life Governors



Congratulations to Mr Robert E Horsell who was elected as a Life Governor at the Annual General Meeting Held 23rd April 2012

Mr Robert E Horsell
OAM, CPA

Robert has over the last thirteen years provided invaluable guidance and counsel to Respiratory Medicine as a Director of the Australian Respiratory Council.

Robert was nominated by Mr John Chapman AM, (Executive Officer of the Australian Respiratory Council, Community Health & Anti Tuberculosis Association (CHATA) as then known and invited by Professor Ann Woolcock, the President of the Australian Respiratory Council to join the Board and Chair the Finance Committee in 1999. Robert chaired his first finance meeting on 24th June 1999.

During the time of his Directorship, the Australian Respiratory Council has donated by way of research grants, scholarships and projects over $3.8 million. These funds have been raised through external donation, financial management of the organisation's finances and existing capital. Robert has been instrumental in managing the allocation of these resources.

His drive and determination is tireless in the guidance and support he continues to provide in the management of the Australian Respiratory Council's finances.

The work of people like Robert who receive no financial benefit for countless hours of work and dedication make not for profit organisations such as the Australian Respiratory Council viable.

Respiratory medicine has been a beneficiary of Robert's contribution. History of services to community and the benevolent work of charities:

In 2004, the tsunami hit Seenigama (Sri Lanka) leaving 500 families, some 2,500 Villagers with nothing other than a pile of rubble. Through the guidance of Robert, Cricket NSW became a major donor to the Foundation of Goodness. The Foundation serves the region around Seenigama providing to all needs of the villagers including: housing, infrastructure, livelihoods, health care, education, skills development, sports environment and cultural preservation. The achievements include the building of the Accommodation Centre, Bryan Adams Swimming Pool Complex, Surrey Club House and the Sports Management Office. In recognition of his special contribution to the project, Robert was invited as a guest of honour to the official opening.

On 26 January, 2012 Robert Horsell was awarded the Medal of the Order of Australia in recognition of his service to the community.



Congratulations to Clinical Associate Professor Peter Gianoutsos who was elected as a Life Governor at the Annual General Meeting Held 23rd April 2012

Clinical Associate Professor Peter Gianoutsos
MB CHB FRACP FACCP
Medicine, Central Clinical School, University of Sydney

Throughout his career in Respiratory Medicine, Peter Gianoutsos has made a significant contribution to the field of respiratory health in Australia, through the promotion of high quality clinical care, education, research and community access to best practice respiratory medicine.

He was the Senior Respiratory Physician at Royal Prince Alfred Hospital (RPAH), Sydney from 1971 to 2008.Throughout this period, Peter was closely involved with the development of the profession through the Thoracic Society of Australia and New Zealand (TSANZ). His leadership skills were called upon by the TSANZ, NSW State Branch where he was both Treasurer and President. Here he oversaw important developments, such as continuing education. His interest in education was extended over the Torres Strait, where he was engaged as a visiting professor at the University of Papua New Guinea.

Peter has cultivated a broad professional network through his association with a variety of organisations. These include the American Thoracic Society, the American College of Chest Physicians and the British Thoracic Society, on which he served as Governor for Australia. He was engaged by the Medical Defence Union, where he served as Chairman of the Claims Committee and State Advisory Committee.

In addition to his service to professional associations, Peter served on the Boards of a number of related organisations. These include his Chairmanship of the Royal Prince Alfred Hospital Medical Board and United Medical Protection Limited's, Medical Experts Panel and membership of the Medical Board of NSW and the United Medical Protection Limited's Board of Directors.

Peter was instrumental in the establishment of the Australian Lung Foundation, a charitable body that provides funds for research and community support and went on to play a significant role in its success and expansion.

As an active lobbyist for lung health, Peter has utilised this professional network to promote activities in the community's interest, such as the Tobacco Plain Packaging Bill 2011.

In recognition of his contribution to development of the profession, Peter was appointed Clinical Associate Professor by the University of Sydney in 2006.

On retiring from his senior role at RPAH, Peter retained a consultant position at the hospital along with his academic post at the University of Sydney. He currently offers his services as a Respiratory Physician to the Medical Specialist Outreach Assistance Program (MSOAP), Coffs Harbour, Mid North Coast, New South Wales. MSOAP is a not-for-profit organisation, set up to provide rural communities with access to specialists, locally.

Peter was appointed to the Board of the Australian Respiratory Council (ARC) in 2006 and elected Vice President soon after, in 2008. Since that time, Peter has represented ARC on an annual basis at the Annual Scientific Meeting of the TSANZ and at other national/international forums. ARC is proud of its partnership with the Cambodian Anti-Tuberculosis Association and in 2010. Peter was instrumental in negotiating a partnership between the TSANZ and ARC to co-fund the Cambodian TB Project. This partnership continues in 2012. Through his ongoing participation on ARC's Board of Directors and Finance Committee, Peter continues to live his commitment to respiratory health, in the service of ARC's mission.

Vale

Sadly this year saw the passing of Derick Smith a previous ARC Board member and the unexpected passing of Peter Tyler the author of ARC's history.



Frederick Charles Samuel Smith
26th September 1933 – 11th August 2012

Derick was born at Ballarat on 26 September 1933, the son of a sales manager. To distinguish him from his father, Frederick Bartlett Smith, he was known as Derick.

After matriculating from Scotch College, Melbourne he worked at Fuller, King and Co, accountants, where he worked during the day and became a CPA by attending night school. He remained at Fuller, King and Co. when it was absorbed by global accountancy firm Arthur Andersen and Co. Derick became a partner and was transferred to Sydney in 1971. After many years he left to become company secretary at Payce Consolidated Limited, a leading listed property investment and development group, where he remained until retirement.

Derick was appointed to the ARC board in 1998 and was Finance Director up until he retired in 2006. Derick provided an additional commercial expertise to ARC's Board. Whilst he stated he was unable to take on the role of Honorary Treasurer, he undertook the role of Acting Honorary Treasurer until a suitable candidate was found. Derick in conjunction ARC's Solicitors undertook a review of the Constitution.

Derick was highly regarded in the financial world, respected for his precise and astute work and the high standards he set himself.



Peter John Tyler PhD
17th March 1934 – 05th May 2012

Peter, a stalwart of Sydney history circles for many years was born on March 17, 1934, the son of a NSW public servant. He spent his early years in Singleton and afterwards moved to Sydney.

Peter spent many years as chief executive of several voluntary associations, including seven years as National Secretary of the Australian Institute of Environmental Health. He was a member of the executive committees of both the Australian Society of the History of Medicine and the New South Wales Society of the History of Medicine. He presented papers on public health themes at Society conferences and overseas. Peter completed his academic studies as a mature age student in full-time employment. His PhD thesis "An Irreproachable Instrument?" was an historical study of the NSW Board of Health. As the Board was deeply involved in tuberculosis treatment and prevention, Peter's research in State Archives, Mitchell Library and NSW Health delved into much of the material related to TB. All these aspects placed him in good stead when he was commissioned to write ARC's history "No Charge - No undressing" for the 90th Anniversary in 2003.

At the time of his death Peter was compiling a history of ARC over the last 10 years. It was intended that the results of this commissioned work were to be released to celebrate ARC's Centenary in 2013.

Australian Respiratory Council

Celebrating 100 Years

The Australian Respiratory Council (ARC) traces its origins to 1912, when the National Association for the Prevention and Cure of Consumption opened the first anti-tuberculosis dispensary in Sydney. This was a time when pulmonary tuberculosis was a major cause of mortality, yet no effective therapy was available.

Over succeeding decades the organisation altered its corporate name to reflect more accurately the changing nature of its activities: the Anti-Tuberculosis Association of New South Wales, and later Community Health and Tuberculosis Australia (CHATA).

During this time the activities undertaken have ranged from operating a dispensary, mobile vans, conducting immunisation campaigns, nurse education, laboratory technician training, providing research and fellowship grants, funding of projects in Australian and the Asia Pacific region, development of TB resources and conducting community education campaigns.

The centenary of the first annual meeting of the Anti-Tuberculosis Association will occur on 16 September 2013.

We will be notifying of planned activities to commemorate this wonderful achievement.



Supporters Of ARC

Benefactors

Breath of Life

During the last twelve months ARC has been pleased to see that our supporters are continuing to show their commitment to ARC and it's mission by "ticking the box" marked

To help us plan our future projects and research funding, would you consider leaving us a bequest?

You, like those who have already informed us of their intention to leave a bequest can become members of the "Breath of Life" Club and make a lasting contribution to the Australian Respiratory Council by leaving a bequest in your will.

No one should overlook the important act of making a will, no matter how much or how little one possesses. A will is the primary instrument the courts will recognise after your death as expressing your wishes about the distribution of your property. It tells the world what persons, causes and institutions you value.

As many as 36.1% of Australians (5 million) do not have a will. Without a personal will, your assets may be distributed not according to your wishes.

The needs of your family come first in the planning of a will. Many people find that after they have provided for loved ones, they have something left over to provide for institutions and causes they support today.

A well-constructed will can maximise the value of your estate. For example, a charitable bequest can reduce the final tax burden of your estate. We recommend you seek professional advice when drawing up or revising your will.

Making a will is truly an opportunity to plan it your way. If you do not have a will, now is the time to prepare one. If your will is out of date, make arrangements to review it.

If you have included ARC in your will, or if you would like information on how you can leave a bequest to ARC, please call 02 9223 3144 or email us on arc@thearc.org.au

Thank you for your commitment to a community free of respiratory illness.



*"We make a **living** by what we get, but we **make a life** by what we **give**."*

- Winston Churchill

Supporters Of ARC (continued)

Partners and Friends

NSW TB Nurses Conference

The New South Wales 2012 TB Conference was held over two days on the 1st and 2nd of November. One hundred and fifteen delegates were registered for the conference, representing seven states and territories, a range of national government and non-government organisations, as well as international attendees from New Zealand and Papua New Guinea. The conference program included 16 presentations covering a range of current issues in TB control, as well as two open forum sessions allowing attendees to discuss key challenges in their jurisdictional programs and the development of a national approach to training and development for TB nurses. The conference was enjoyed by all and feedback highlighted a strong interest in undertaking operational research amongst TB nurses.

World TB Day 2012

World TB Day, **March 24th** each year, is designed to build public awareness that tuberculosis today remains an epidemic in much of the world, causing the deaths of nearly 1.5 million people each year, mostly in developing countries.

The UN Secretary-General Ban Ki-moon observed World TB Day this year by visiting the Institute of Respiratory Medicine, in Jalan Pahang, Malaysia. He called for intensified global solidarity to ensure that all people were free from TB and its devastating effects.

"Globally, among all infectious diseases, TB remains the 2nd leading killer. Our goal now is to stop TB in our lifetime," he said, adding that the UN takes the disease very seriously, with a high priority. In concluding his remarks, the Secretary-General asked those present "to vow to end TB in our lifetime".

The World TB Day Campaign 2012 was aimed at allowing people all over the world to make an individual call to stop TB in their lifetimes. The campaign encourages people to make a poster or upload a video with a personal message of what they would like to see progress in the fight against TB in their lifetime. Please visit www.mystoptb.org for more information or to see some of the excellent posters.

In 2012, ARC joined the worldwide campaign "Stop TB in My lifetime!". The main message was that progress in the global fight against TB cannot wait, that TB must be stopped in our lifetime. In their lifetime, today's children should expect to see a world where no one gets sick with TB; in their lifetime, today's adults should expect to see a world where no one dies from TB.

Tuberculosis is increasing Expedentially in the Highlands of PNG

Margaret Evans and Beverly Hall

Introduction:

Twenty years ago tuberculosis (TB) was rarely seen at Goroka General Hospital (GGH) in the Eastern Highland Province of PNG. In 2012, TB is the primary diagnosis for 75% of medical ward patients at GGH. Anecdotally, the acquisition of TB by Health Care Workers (HCWs) has increased 2-3 fold in the past year among HCWs at GGH. In the hospital, staff are fearful of the disease, wear personal protective equipment (PPE) inappropriately and information beyond that of the International Directly Observed Therapy Programme (DOTS) is limited in this poorly resourced setting.

Methods:

A quality improvement study began in 2010-2011. Baseline information was gathered via observational audit and interview with stakeholders. A gap analysis was undertaken in clinical practice, treatment, diagnosis, guidelines and policy knowledge.

Results:

- Poor clinical practices exist eg:
  - Isolation of infectious patients is not possible
  - A patient with resistant TB in a 8 bed room, with a succession of other TB patients & relatives for one year
  - PPE (when available) was inappropriately worn
  - Sputum disposed in a flushing toilet (which becomes aerolised)
  - Sputum specimens collected in a multi bed ward with poor ventilation.
- Laboratory testing equipment for sputum smears not always available
- Variable understanding of treatment regimes by HCWs
- No formal education on TB provided to hospital HCWs for 6 -10 years
- No GGH management plan for patients with resistant TB
- No national or local policies exist for the management of TB in health care facilities.

Conclusion:

TB and resistant TB will continue to infect HCWs in poorly resourced health facilities if staff are not given information, education and resources to implement appropriate strategies that prevent transmission of TB.

TB researchers conduct pharmacy-based survey in Cambodia

University of Sydney researchers Dr Bandana Saini and Carolyn Bell from the Faculty of Pharmacy found themselves competing for space on the crowded streets of Phnom Penh, when President Obama and his cavalcade caused traffic chaos and road closures, during the ASEAN meeting in Phnom Penh in November 2012.

In Phnom Penh, Cambodia to conduct a survey of pharmacy owners participating in a TB Referral Program, Dr Saini and Ms Bell, were apprehensive when told of the clash of these major events!

However, thanks to the commitment and co-operation of staff and drivers at the National Center for Tuberculosis and Lung Disease (CENAT), and the goodwill of participants, the survey proceeded smoothly with minimum re-scheduling of interview times and transport plans.

The Program providing pharmacy-initiated referral of TB symptomatic patients to public sector clinics, is a public/private mix (PPM) intervention involving CENAT and the Ministry of Health as the lead organisations. The global non-government organisations PATH and Family Health International, co-ordinate intervention activities. The Pharmacists Association of Cambodia together with the Municipal and Provincial Health Departments, are responsible for implementing the Program through a network of private sector pharmacies. The Program began in 2005 as a component of CENAT's DOTS Expansion Strategy under the National Health Strategic Plans for Tuberculosis Control 2001-2005 & 2006-2010. Data shows approximately 19% of TB symptomatic patients arriving at clinics have been referred through private sector pharmacies.

Results from focus group discussions with Phnom Penh pharmacy owners conducted by Dr Saini and Ms Bell in 2011 showed owners were committed to the Referral Program and had good knowledge of the public health principles underpinning their role. Data from these discussions informed the design of the follow-up 2012 survey.

Preparations for the survey began early in 2012 and the pilot testing of data collection documents in September during a trial survey in Phnom Penh proved invaluable, leading to changes in the Khmer versions of documentation to better accommodate cultural and situational requirements of survey participants.

In November 2012 a team of five Khmer-speaking interviewers administered the survey questionnaire to 175 randomly selected TB referral providers, at their pharmacies, in the four operational districts of the Municipal Health Department in Phnom Penh. Data from this survey are undergoing analysis by University of Sydney researchers Dr Saini and Ms Bell.

It is hoped that survey results will lead to more targeted training for pharmacy referral service providers and contribute to future improvements in the Program which may assist sustainability of referral services in Cambodia when global partners move on.





Supporters Of ARC (continued)

Partners and Friends

Peak lung health bodies unite in the fight against lung disease

Lung Health Alliance

Australia's peak respiratory health organisations formed a powerful Lung Health Alliance to address the impact of lung disorders that affect one in four Australians.

The Lung Health Alliance was formed to advocate on behalf of patients and families affected by poor lung health and support public awareness campaigns highlighting the risks and prevalence of conditions including lung cancer, asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis, interstitial lung diseases and lung infections, including tuberculosis.

Partners forming the Lung Health Alliance are:

- The Thoracic Society of Australia and New Zealand;
- The Australian Lung Foundation;
- Asthma Australia;
- The National Asthma Council Australia;
- Australian Respiratory Council; and
- Cystic Fibrosis Australia.

The Lung Health Alliance was launched on Saturday 31 March, at the opening of the TSANZ Annual Scientific Meeting at the National Convention Centre in Canberra.

TSANZ President, Professor Paul Reynolds, said the alliance was driven by a commitment of the peak respiratory bodies to "speak with one voice" on key respiratory health issues.

Speaking at the TSANZ meeting in Canberra, Professor Reynolds said: "One of our shared objectives is to collaborate on public awareness campaigns, and advocate to governments and health bureaucracies on initiatives to reduce the risks and improve the management of respiratory illness in the community.

"If we are looking at risk management, for example, lung cancer is the most lethal cancer in society. However, in regard to incidence and mortality rate, proportionally much less gets spent on research for lung cancer than other prominent cancers."

Asthma continues to affect about 2 million Australians of all ages. Asthma still causes just over 400 deaths in Australia each year. There is now clear recognition that not all people with asthma are alike, and that the underlying processes of airway inflammation differ and may respond better to more targeted approaches to therapy and self-management.

Another important clinical problem is under-diagnosis of COPD, especially in the elderly, where shortness of breath can be incorrectly attributed to the effects of ageing alone. Up to half a million Australians are affected by COPD, a progressive and disabling disorder of the lungs. It is the fourth biggest killer of Australians after heart disease, stroke and cancer.

For thousands of people, respiratory illness remains undiagnosed as an invisible burden on the community.

On a positive note, Professor Reynolds said survival into adulthood for cystic fibrosis patients had improved dramatically in recent decades. However, the average length of life for a person with cystic fibrosis is still only 37 years.

Professor Reynolds said tuberculosis remained a public health priority in Australia. Whilst rates of TB have remained stable over recent decades, Australia has failed to progress toward the strategic target of TB elimination. TB control will not be achieved within Australia until it is controlled in the region and globally. Australia needs to contribute to international efforts in global TB control, including investment in operational and fundamental TB research.

In 2012 the Lung Health Alliance collaborated on a range of issues of common interest to its partners, including promoting infection control measures during the flu season, anti-smoking campaigns and antibiotic resistance. The Alliance has advocated on the following issues:

- Options: Tobacco Content Controls and Disclosure
- Review of Health and Medical Research in Australia
- National Tobacco Strategy 2012-2018
- Future Funds to exclude Tobacco Producers
- NZ Cigarette Imports



The Alliance also commenced its annual "Cover Your Cough", campaign in 2012, to promote public awareness of how to minimise the spread of respiratory infections.

Visit the Lung Health Alliance website for more information on these activities. http://www.lunghealthalliance.org.au/about-the-lung-health-alliance.html

Investing in the future through research



Ann Woolcock Fellowship

This award was established in 2004 and is named in honour of the late Professor Ann Woolcock AO, former head of the Institute of Respiratory Medicine at the University of Sydney and Royal Prince Alfred Hospital. Professor Woolcock was a strong supporter of trainee scientists and physicians.

This is a 4 year full time postdoctoral fellowship in biomedical, clinical or public health research anywhere in Australia and is valued at approximately $100,000 per year. The Fellowship aims to encourage people of outstanding ability to develop research as a significant component of their career.

The Fellowship will support research relating to tuberculosis, respiratory diseases due to other infections, or respiratory diseases related to tobacco use, community issues or the health of disadvantaged groups.

Ann Woolcock Fellowship

2004 - 2008 The genetic influences on causal pathways of acute lower respiratory tract infections (ALRIs) in highly susceptible infants in PNG

Dr Ingrid Laing
Telethon Institute for Child Health Research, Perth

2010 - 2014 Characterisation and treatment of innate immune dysfunction in older people with obstructive airway disease

Dr Jodie Simpson
University of Newcastle



Harry Windsor Research Grants Scheme

These grants are named in honour of the late Dr Harry Windsor, a leading Australian heart surgeon who played a key role in ARC for many years.

Dr Windsor performed the first heart transplant operation in Australia and was a prominent cardiothoracic surgeon at Sydney's St Vincent's Hospital.

He was actively involved with ARC and its Board from 1955 until his death in 1987.

These awards are being offered nationally to support research in:

- Tuberculosis
- Respiratory diseases related to other infections
- Smoking-related respiratory diseases

Research which also address community issues or the health of disadvantaged groups are particularly encouraged.

Grants of approximately $50,000 are offered each year. Grants are available for projects submitted to the National Health and Medical Research Council (NHMRC) which are considered fundable but which do not reach the cut-off mark for funding in any one year. An information sheet and grant conditions can be found and downloaded from ARC's website: **www.thearc.org.au**

Harry Windsor Research Grants

2012 Recipient

2012 Microparticles and microRNA as biomarkers of TB disease. Dr Bernadette Saunders, *Centenary Institute, Sydney*

Dr Jodie Simpson

Australian Respiratory Council Ann Woolcock Research Fellow 2010 - 2014



Characterisation and treatment of innate immune dysfunction in older people with obstructive airways disease

During my Anne Woolcock Research Fellowship I have been conducting 2 important studies that will explore the role of the innate immune system in older people with obstructive airways disease (asthma and/or COPD). I am examining a novel mechanism leading to neutrophilic inflammation in obstructive airways disease which is a key discovery in this area and will be generalisable to other neutrophilic airway diseases.

Since commencing my fellowship I have had considerable grant success with 3 new NHMRC project grants since 2010 resulting from my fellowship work and will now seek to translate the discoveries into clinical practise in severe asthma and COPD. I have also written a chapter The Biology of Neutrophils in the prestigious text book "Middleton's Allergy Principles and Practise".

Obstructive airways diseases in the older age group are increasingly common, and the distinction between different diseases can be blurred. In clinical practice distinguishing asthma from COPD in the over 55 age group is problematic because of overlap of many of the features of both diseases. This overlap may result from altered pathophysiology in the elderly, where the underlying inflammatory reaction in the airways becomes similar in the different conditions as people age.

Ageing is associated with a range of immune system changes. There are well-described changes in both innate and adaptive immunity with ageing. Important inflammatory cells called neutrophils, exhibit decreased capacity to perform some of their vital functions with ageing, which may lead to persistence of infection. Neutrophil responses are typically associated with activation of the innate immune system. The development of age related airway neutrophilia implicates a role for the innate immune response being responsible for this effect.

During my fellowship I have been investigating obstructive airways disease in the elderly and how alterations in the innate immune response in older people with airways disease can potentiate the effects of ageing and compare these results with older and younger healthy controls. I have also been examining the effect of a new treatment to determine its ability to reduce airway neutrophils in older people with COPD.

1. Charactersiation of immune dysfunction in older people with obstructive airways disease

The obstructive airway diseases COPD and asthma are now major health issues for Australia's ageing population. COPD is a disease of global significance that is a major contributor to mortality and morbidity in older people. The airflow obstruction that characterises COPD is progressive and incompletely reversed by current therapy. This underscores the need to better understand disease mechanisms which would facilitate the search for new treatment modalities in COPD. Airway inflammation is a key element of COPD, and typically involves neutrophilic infiltration of the airways. Neutrophilic bronchitis in COPD is persistent, and remains after the removal of stimuli such as tobacco smoke. The role of airway inflammation in obstructive airway disease of older people is poorly understood. It is likely to be important but also different to younger people because of life-long exposures to particulates such as cigarette smoke or other immune stimuli such as infections.

Persistent neutrophilic bronchitis is also a feature of other chronic airway diseases; bronchiectasis, allergic bronchopulmonary aspergillosis, and the neutrophilic subtype of asthma. This suggests there may be a common mechanism contributing to persistent airway neutrophilia in these diseases. We have previously described a self-perpetuating neutrophil activation cycle (NAC) in neutrophilic asthma and hypothesised its existence and the involvement of an important immune system receptor (toll like receptor 2) in other obstructive airway diseases characterised by neutrophilic inflammation. This cycle is activated by toll like receptor 2 stimulation and persists via positive feedback interactions between important neutrophil proteins (CXCL-8, NE, and MMP-9) all of which levels are significantly elevated in the airways of patients with neutrophilic asthma.

Other factors known to influence airway neutrophilia are ageing, smoking, airflow obstruction, infection and corticosteroid use, and these factors are also associated with neutrophilic airway diseases. However, it is unclear to what extent factors such as age and past smoking impact on the persistent neutrophilic bronchitis and NAC in COPD. We have investigated these issues by assessing components of the NAC, and controlling for the effects of age, smoking and airway obstruction in patients with COPD. We have recruited 118 adults and collected induced sputum for bacterial culture and measurement of key inflammatory proteins and genes.

The NAC was enhanced with age, smoking and most significantly in those with COPD. TLR2 gene expression was significantly elevated in those with COPD and was a significant independent predictor of neutrophils in sputum after correcting for age, smoking and airflow obstruction. TLR2 activation led to increased gene expression for TLR2 and the induction of the components of the NAC. The results of this study have been accepted for publication in Mediators of Inflammation.

2. Treatment of immune dysfunction in older people with obstructive airways disease

While effective treatments are well established to treat some types of inflammation in asthma and COPD, there are no treatments targeting neutrophilic inflammation. The anti-inflammatory effects of macrolide antibiotics are well-established. Macrolide antibiotics such as azithromycin have separate and distinct antibiotic and anti-inflammatory actions. There is extensive in vitro evidence of anti-inflammatory activity of macrolides, and some evidence that they may be efficacious in the treatment of neutrophil mediated airway diseases.

We have conducted a randomised placebo controlled trial of azithromycin therapy for 12 weeks to determine the ability of macrolide treatment in reducing the NAC components as well as bacterial load. We have screened 77 participants and randomized 30 people for the clinical trial of azithromycin therapy in older patients with airways disease. Study treatment was completed late in 2011. The main analysis was completed in 2012 and will continue in 2013 with the preparation of the initial manuscript to be completed by mid-2013.

Research Training

Student Supervision

- **2007-2012:** Ms Ama-Tawiah Essilsie in her PhD investigating an animal model of asthma and the role of *Haemophilus Influenzae* infection on inflammatory phenotype. She submitted the final version of her thesis in February 2012 and completed her PhD in 2012.
- **2007-2012:** Ms Hayley See is investigating the *in vitro* response of bronchial epithelial cells and the activation of lymphocytes from COPD patients by infection with rhinovirus, respiratory syncytial virus and *Haemophilus influenza*.
- **2008-2012:** Mr Heng Zhong commenced his PhD in October 2008 studying the *in vitro* response of bronchial epithelial cell and neutrophils to infection with rhinovirus: a comparison of patients with COPD, healthy smokers and healthy non-smokers.
- **2009-2012:** Mr Lakshitha Gunawardhana, is studying the epigenetic regulation of airway inflammation in non-eosinophilic asthma.
- **2012:** Mr Kevin Oreo completed his Honors Project "Biomarkers for Severe Asthma Phenotype" with Class 1 in November 2012.

Research Output

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Dr Bernadette Saunders

TB Research Program, Centenary Institute



Identification of new biomarkers for detecting the presence of TB disease and monitoring the response to therapy.

Tuberculosis (TB) remains an enormous global health problem, with over 9 million new cases a year and 1.5 million deaths. The rise in TB, especially in multi drug resistant strains of *M.tuberculosis,* our lack of rapid reliable diagnostics and inability to identify those at risk of reactivation from latent TB infection are major hurdles to overcome to decrease the prevalence of this disease worldwide. Control of infection is hampered by the lack of rapid tests to both diagnose active infection and monitor a patient's response to antibiotic therapy. New therapeutics and new biomarkers of infection are urgently required to help reduce the burden of TB. Understanding how the host responds to, and controls, *M.tuberculosis* infection is an important first step to identify new therapeutic targets or potential biomarkers. The expression of specific miRNAs and increased microparticle (MP) production have been linked with a number of infectious and inflammatory conditions, and we have shown that both are upregulated by *M. tuberculosis* infection of human macrophages and are modulated in the plasma of TB infected individuals.

The aim of this study is to determine if microparticle levels, or the presence of microRNAs in blood can be used as biomarkers for TB disease and to monitor the response to therapy.

Microparticles are small vesicles (100 nm-1 ìm in size) (Figure 1A) released from the plasma membrane of multiple cell types under normal physiological conditions (2). Microparticles contribute to cell-to-cell communication by transferring cargo from donor to recipient cells including biologically active cytokines, receptors, integrins, mRNA and microRNA (3). Our recent studies have shown, for the first time, that *M. tuberculosis* infection increases microparticle production from human macrophages (1). These microparticles are proinflammatory inducing IL-8 and MCP-1 expression when incubated with naïve recipient macrophages (Figure 1C, D). Furthermore, when injected *in vivo* microparticles from *M. tuberculosis* infected cells, induce the recruitment of neutrophils, macrophages and dendritic cells to the site of injection. A significant increase in leukocyte derived CD45+ microparticles was also detected in the serum of mice infected with *M. tuberculosis* (Figure 1B).

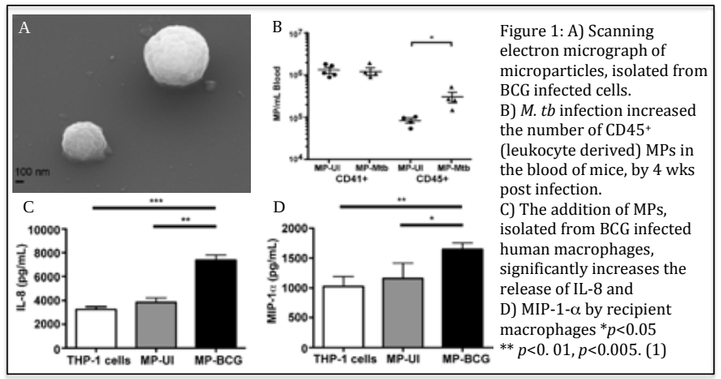


Figure 1: A) Scanning electron micrograph of microparticles, isolated from BCG infected cells.
B) *M. tb* infection increased the number of CD45⁺ (leukocyte derived) MPs in the blood of mice, by 4 wks post infection.
C) The addition of MPs, isolated from BCG infected human macrophages, significantly increases the release of IL-8 and
D) MIP-1-α by recipient macrophages *p<0.05
** p<0. 01, p<0.005. (1)

MicroRNAs are small non-coding RNA sequences of ~22 nucleotides that aid control of gene regulation (4). miRNAs have multiple targets and induce seemingly dichotomous responses, depending upon the cell producing the miRNA, the target cell and a host of other environmental factors that are at best poorly understood (5). A growing number of miRNAs have been identified within macrophages following inflammatory or infectious stimuli, including *M. tuberculosis* infection. During this past year we have examined microRNA expression within *M. tuberculosis* infected macrophages and identified several miRNAs; miR-155, miR-146a, miR-125 and miR-29 that are all upregulated by *M. tuberculosis* infection. Furthermore, we have shown that microparticles released by these infected macrophages contained increased levels of these microRNAs (Fig 2).

Experimental Design:

With support from the Australian Respiratory Council we have commenced a study to determine if microparticle levels, or the presence of specific microRNAs in the blood can be used as biomarkers to detect TB disease and to monitor the response to antibiotics. We are examining microparticle and microRNA levels in a cohort of TB patients compared to healthy controls. Determining microparticle and microRNA levels in TB patients before the commencement of antibiotic therapy after 1 week, 1 month, 2 months and 6 months of anti-microbial treatment to determine if there is a relationship between disease and levels of plasma microparticle and the presence of specific microRNAs in the blood. Initial studies to establish baseline MP and miRNA levels in healthy controls have been undertaken. This included identifying 'housekeeper' miRNAs that were expressed at a constant level the blood of TB patients, individuals with latent disease and healthy controls that were not modulated by infection but could serve as a standard for microRNA levels in plasma. This study examined the presence of 10 selected microRNAs and identified miR-192 as a suitable housekeeper microRNA, i.e. present in stable, similar amounts in the blood of TB patients and controls. We are also in the process of collecting blood from TB patients during the course of their

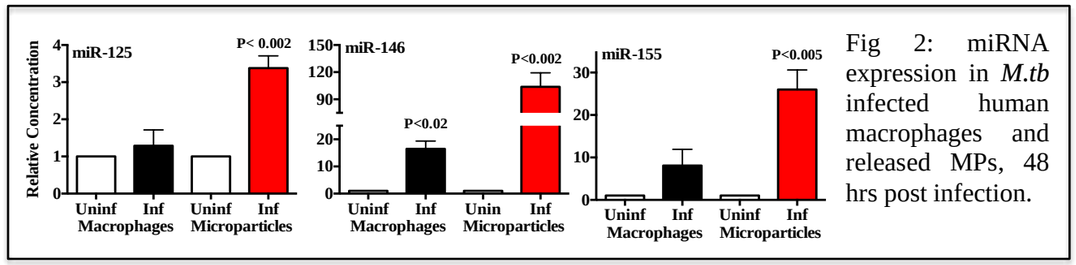


Fig 2: miRNA expression in *M.tb* infected human macrophages and released MPs, 48 hrs post infection.

treatment. As we need to collect blood at multiple time points during a six-month period of standard antibiotic therapy, we anticipate sample collection will be complete within the next 6 months. These studies have indicated that miR-192 is expressed at a similar level in all of the samples examined to date and may be useful as a housekeeper miRNA (Figure 3). Encouragingly, our preliminary studies, with only 10 patients analysed to date, have shown that expression of MiR-221 and Let-7 are significantly downregulated in the serum of untreated TB patients compared to healthy controls.

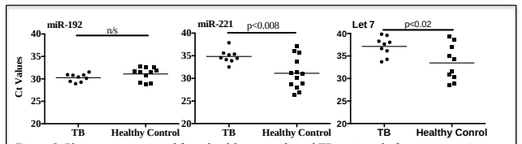


Figure 3: Plasma was screened from healthy controls and TB patients before commencing anti-TB therapy. Samples are 10 patients/group screened by qPCR.

Our initial studies were planned using blood collected from TB patients attending Sydney Clinics, however collection has been slower than anticipated. During this time we have established a new collaboration with Dr YuRong and colleagues at Ningxia University and Ningxia Infectious Disease Hospital in Yinchuan, in the Ningxia Hui Autonomous region of China (Figure 4). The hospital sees over 1300 TB patients a year. Since visiting Yinchuan last year we have obtained ethical approval, from both Sydney University and Ningxia University in China, to expand our study. We have utilised funds generously provided by ARC to collect all the samples for this study. Given the large number of TB patients attending the Ningxia Infectious Diseases Hospital we have been able to expand the study to collect blood from an additional 200 TB patients and 200 healthy controls to measure the changes in microRNA and microparticles, and to determine how expression is modulated over the 6 months of therapy.

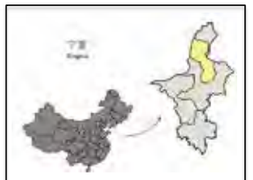


Figure 4: Yinchuan province (yellow) within Ningxia Hui Autonomous Region in China

MP populations are identified by size and Annexin V labelling. Phenotypic markers being assessed to determine the cellular origin of the MPs, including CD11b (monocytes), CD3 (T cells), CD105 (endothelial cells) and CD41 (platelets) (6). MPs in 5 mls of blood are purified and miRNA levels determined as compared to the whole plasma. From our preliminary studies we have chosen to measure 7 miRs; -146, -155, -192, -221, -Let-7, -99 and -125. We hope this preliminary study, which will be completed by the end of 2013, will provide essential data for further extended studies.

Significance

New mechanisms to identify TB disease, or individuals with latent TB who are at high risk of reactivation are urgently required. Gaining a greater understanding of MP and miRNA expression patterns during M. tuberculosis infection and examining their potential as biomarkers of TB disease offers potential for new diagnostic applications.

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Project Feedback



MECOR Vietnam

Improving global lung health through development of local, country and regional lung disease research capacity

In 2012 ARC continued its support of Professor Guy Marks from the Woolcock Institute of Medical Research, to conduct and expand the MECOR Program, which aims to develop research skills of TB medical officers in Vietnam. Building on the success of the previous Level 1 course in 2011, a further Level 1 course and the first Level 2 course was conducted in Vietnam. MECOR Vietnam Level 2 is the next step in the ATS MECOR Program and focuses the participants on: extending their knowledge about research design, implementation and analysis; developing their skills in critical appraisal of scientific evidence; and assisting them to individually develop a research protocol that they will implement over the next 12 months.

MECOR Vietnam Course Objectives

The program is designed to enable health care professionals

- to be able to use data from the literature to improve clinical practice
- to develop the skills needed to study local, national, or international problems, and to develop and evaluate interventions
- to use data to inform public policy and improve clinical practice, and academic programs.

Participants: Students and Faculty

All final applicants were interviewed prior to selection for the course. Finally, 28 out of 57 applicants for Level 1 and 11 out 14 applicants were selected for Level 2. The majority had additional training in tuberculosis and/or had specialty training in pulmonary diseases. Excellent geographic representation was achieved with students from both the north and the south of Vietnam. Most were from Hanoi and Ho Chi Minh City but some were from other cities including Da Nang, Khanh Hoa, Quang Tri, Buon Me Thuat, Can Tho and some were from Phnom Phenh, Cambodia.

The course faculty included 5 faculty members from Vietnam, 4 from Australia and 2 faculty members from the American Thoracic Society.

MECOR Vietnam Course Competencies

As in the previous Level 1 course, participants learned the fundamentals of posing a testable research question, the various study design options for generating and testing hypotheses, and basic analytic skills. The participants were presented an overview of statistics that will enable them to collaborate effectively with statistical consultants and co- investigators. Specifically, participant competencies for Level 1 included: Epidemiology, Research design, Research methods, Statistics and Protocol.

Level 2 focuses on clinical epidemiology and advanced clinical research methods. It is designed for those students advancing from Level 1 who want to improve their skills in research design.

Course syllabus for level 2

Level 2 Competencies	
Research Design	*Understand the basis of clinical epidemiology as an approach to diagnosis, prognosis, and treatment of disease*
	Understand the application of study design to clinical studies
Research Question	*Apply and adapt epidemiologic questions to clinical and health services problems*
Systematic Review	*Understand roles and methods of systematic review, meta-analysis*
Population Selection	*Develop feasible and valid approaches to sampling*
Measurement Procedures	*Balance precision and accuracy in measurements; Be able to design and pre-test a study questionnaire*
Quality Control	*Know effective approaches to monitoring quality of data gathering and data entry*
Descriptive Statistics	*Review statistical methods in level 1; understand bivariate and multivariable techniques used commonly in clinical studies*
Measurements of Association	*Review measures of association from Level 1 and understand how prevalence affects the relationship between risk, odds, and hazard ratio*
Sample Size and Power	*Know basic methods to determine sufficient sample size for planed study*
Sources of Error	*Bias, confounding chance; type I and II errors. Reliability, validity, accuracy and precision*
Multivariate Analysis	*Understand role of multivariable modeling including logistic regression and survival analysis*
Ethics and Informed Consent	*Know and follow current standards of ethical treatment of human subjects; understand role of IRB*
Study Outline	*Be able to present research protocol developed in course*







Summary of Presentations

A unique aspect of the *ATS MECOR program* is the actual development of research protocols during the one-week course. The agenda is designed to allow time for students to work in small groups with other individuals having similar research interests to develop such protocols. In other MECOR programs, these "small group" activities have led to lasting research collaborations. During the MECOR Vietnam 2012 course, students developed their initial research protocols with faculty advisors. Below are the study questions that formed the basis of student protocols.

Level 1

- Accuracy of the GeneXpert for the detection of rifampicin resistance and MDR TB in Cambodia and Vietnam
- Factors associated with delay in diagnosis of pulmonary tuberculosis patients in HCM city in 2012
- The association between COPD and Biofuel exposure in rural women in the Mekong Delta, Vietnam
- Description of HIV/TB case management system in Son La province year 2010 – 2011
- Prevalence and risk factors of obstructive sleep apnea among adults in Hanoi city, Vietnam

Level 2

- Investigate the association of time duration from symptom onset to diagnosis of TB on the transmission index among TB patients in Dien Bien province (2012-2015)
- Optimal number fluid samples needed to diagnose pleural effusion
- Mortality and mortality risk factors in patients hospitalized for Acute Exacerbation COPD in Hanoi and HCMC
- Role of Lysosyme, Adenosine Deaminase and Interferon Gamma for diagnosing tuberculous pleural effusion
- Prevalence, prognosis of chronic obstructive pulmonary disease (COPD) in chronic heart failure (CHF) patients and their characteristics of systemic inflammatory biomarkers
- Factors associated with delay in TB diagnosis and treatment of new smear positive TB patients
- Access to TB control services among people living with HIV/AIDS in Quang Ninh province
- Risk factors of severe coetaneous reactions from the first line TB medications in hospitalized patients in Can Tho Province
- Validity – Reliability – Feasibility of Vietnamese version CAT (CAT V) in COPD evaluation at primary care sites in Ho Chi Minh City
- CLASS-A ESBL of Pseudomonas aeruginosa & Acinetobacter baumannii and Risk Factors in Hospital-Acquired Pneumonia in Ho Chi Minh city
- The rate of adherence to maintenance treatment among asthmatic patients who visit at out-patient department in hospitals in HCMC.

Evaluation

A written post-course evaluation by student participants was conducted. Students were asked to provide anonymous input on a standardized questionnaire. Review of this information indicated that, on average, students felt that their skills had improved substantially as a result of the course in the following areas:

- understanding the difference of study designs
- identifying a research question
- understanding statistics.

It is anticipated that in 2013, year 3 of MECOR Vietnam, a Level 3 course will be offered in addition to Levels 1 and 2.

Project Feedback (continued)

TB Control in the elderly and vulnerable and in factories in Cambodia

Since 2010 ARC has provided funding support to Dr Mom Ky and his team from the Anti Tuberculosis Association (CATA) in Cambodia. Their program to combat TB has two points of attack: TB control in the elderly and vulnerable groups in villages and TB control in factories. The overall objective of the work undertaken is the early detection and cure of TB patients. This has been shown to be the most effective approach for controlling TB in these communities.

Over the last 3 years significant achievements have continued. Following is a snapshot of the components of the program which have been undertaken on a monthly basis throughout 2012 and is indicative of the work undertaken over the last three years.

Activities and results of TB control in Elderly & Vulnerable in Villages

Meetings with Volunteer Health Support Groups (VHSG's) and trainings to VHSGs

The objective of field visits is to motivate and upskill the village volunteers to conduct door to door education, mass meetings and referral of TB suspects to the local Health Clinic. The CATA team assists in planning and conducting these activities. Training the volunteers is an important aspect of the work. Role playing is used to train the volunteers in how to use the available resources to pass on TB messages. TB patients are visited at home on a regular basis throughout their six month treatment period to ensure they take the TB medication and to remind them of how important it is to continue taking the medication until completion.

Planning meetings have been held to hand over the management and control of VHSG's in 4 communities to local authorities. During these meetings the VHSG's role and responsibilities are outlined and an activity plan for the next month is compiled as an example for future management. CATA will continue to support a key VHSG of each village to encourage their colleagues and to collect data for monthly report. CATA will collect data from them to encourage continued commitment.

TB awareness campaigns in Villages

Sixteen community TB campaign campaigns have been conducted, with 40 – 50 participants per each session attended. These were conducted by CATA project staff and co-facilitated by local Health Clinic (HC) staff and VHSG. The objective of these campaigns is to increase awareness that TB can be cured and to reduce stigma and discrimination among community people. Participants share their knowledge with their neighbours, encouraging those with TB like symptoms to go to the Health Clinic for diagnosis and treatment. Untreated, someone with active tuberculosis will infect an estimated 10 to 15 people per year.

Successes:

- The Chiefs of the communities are participating in the training/ planning meetings. This in turn encourages more people to volunteer and to be involved at the local level
- Each month new villages have been visited and added to the program. In 2012, 34 new villages have been visited
- Recruitment of volunteers who are key figures in their communities is assisting the ongoing success of the program.

Quarterly follow-up meeting with VHSG and HC staff

Twelve quarterly follow-up meeting have been conducted with VHSGs, HC and Operational District(OD). The meetings are an opportunity to share problems and solutions taken and to prepare the work plan for the next period. It also strengthens the VHSG's compliance with completion of their activities and reporting requirements. This assists CATA to collect data. The meetings also provide the implementation of better methods based on shared experiences.

VHSGs Outreach Activities

The VHSGs conduct outreach activities by contacting people on a one to one basis and in groups in their local community. Outreach activities are flexible according to the location, season or based on the work-plan compiled at the quarterly meetings.

Month	Door to door education	Mass Campaign	Total
January	58	125	183
Febuary	297	212	509
March	235	163	398
April	416	962	1,378
May	230	556	786
June	116	886	1,006
July	672	154	826
August	539	88	627
September	680	265	945
October	765	153	918
November	842	311	1,115
December	782	232	1,014
Total	5,632	4,107	9,739

Table 1: VHSG's outreach activities



Pin Popeo, a volunteer health support worker

Activities and results of TB control in Factory

Training to Peer educators in factory

Ten training sessions were conducted for 161 peer educators in 10 factories. Sixteen participants, who are line leaders and factory clinic staff attended each session. The objective of peer education in factories is to increase the understanding of what TB is, how it is transmitted, treated and prevented. The peer educator then passes on TB messages to co-workers; to identify those with suspected TB symptoms and encourage co-workers to see the staff at the factory clinic. This provides workers with an opportunity to seek treatment which would otherwise not be available to them and without the fear of losing their job.

Follow-up Meeting with Peer Educator

Three follow up meetings were held in 10 factories which have a peer educator trained last year and 4 follow up meetings were held in 7 factories which have newly trained educators. The main objective of the meetings is to review the activities of the peer educator in supporting the TB control program. The peer educators show a willingness to help their co- workers understand TB and are encouraged, despite time restraints to do as much as possible to reduce the spread of TB in these congested work environments.

TB health education/promotion in factories

The CATA team, assisted by factory health clinic staff, conducted 55 lunchtime TB education sessions with 20 participants each session at factories in and around Phnom Penh. In these sessions interesting games, such as role playing are used to convey TB messages. These sessions have proved very popular, often attracting up to 100 other workers to stop and look, standing room only….. These workers become participants at future sessions.

Peer Outreach Activity

Trained peer educators conducted outreach activities at their workplace on a one to one and group basis. Basically, each peer educator contacts 5 to 10 people per month. They refer any person who may have TB to the factory clinic. The clinic staff will either send them to the local health centre for a sputum test or will collect the sputum and take it to the health centre.

Month	One to one contact	Group	Total
January	58	125	183
February	297	212	509
March	235	163	398
April	416	962	1,378
May	230	556	786
June	116	886	1,002
July	672	232	904
August	539	160	699
September	680	337	1,017
October	765	246	1,011
November	757	383	1,140
December	902	236	1,138
Total	5,667	4,498	10,165

Table 2: number of people educated by peer educator by month

Successes:

- More factories are signing up to the TB education/promotion program. At the beginning of 2012 there were 17 factories this has increased to 26 factories
- Follow up visits showed that peer educators were more confident and proactive in conveying TB messages to their co-workers
- Good collaboration has been developed between factory health staff and the local health clinic, which is important because it creates a strong referral system for TB.

Project Feedback (continued)

Be Our Ally Beat Smoking (BOABS) Study Cultural Exchange

In 2011 ARC awarded $10,000 in project funding for two Aboriginal BOABS Study researchers to visit NZ in a cultural exchange. Due to unforeseen circumstances this visit was delayed until 2012. By this stage Mrs Tracey Kitaura was the only Aboriginal researcher working on the BOABS study. It was decided, Associate Professor Julia Marley, the lead researcher on the BOABS Study would accompany her. Associate Professor Marley is involved in the translation of the BOABS Study into the BOABS Program in the Kimberley.

Mrs Tracey Kitaura and Associate Professor Julia Marley travelled to Wellington to view Maori Tobacco Control Programs in New Zealand (NZ). They were hosted by Kokiri Marae Health & Social Service, which provides a mixture of health and social services such as assistance with housing, childhood immunisation, cervical screening as well as smoking cessation.

This cultural exchange provided an insight in to how the Aukati KaiPaipa (AKP) smoking cessation programme is delivered around Wellington. The BOABS researchers also presented the findings of the BOABS Study to Kokiri staff. This enabled Mrs Kitaura and A/Prof Marley and Kokiri staff to share ideas on tobacco control strategies to help de-normalise tobacco consumption in their respective communities. There were many similarities between AKP and BOABS, including providing one-on-one outreach support over a twelve month period. One of the major obstacles for the BOABS Study was recruiting participants into the study and this is likely to be an issue with the future BOABS Program. An important observation of the APK was the marketing approach to encourage people to join the program. For example all AKP cars have "Wanna Quit Smoking call 0800 926 257" on the side. AKP workers find they often have people coming up to them in the street asking to join the program.

Assessment of the results of the Project



The main reason for the trip was for BOABS researchers to see how AKP worked on a day to day basis, to find out what works/does not work for the Maori people, and to share ideas on how we could roll out the BOABS program across the Kimberley.

The insight gained from this exchange, together with the findings from the BOABS Study, will be used to make recommendations on future tobacco control programs for Aboriginal and Torres Strait Islander people in Australia. Several of the APK workers spoke about coming over to the Kimberley region to see how the BOABS program is run.

Mrs Kitaura is now employed as a tobacco action worker and has started running a smoking cessation program in Derby and will be incorporating elements of AKP into what she does on a day to day basis.



Outcomes for the target group(s)/communities

Mrs Kitaura's personal outcomes from this exchange included:

- I enjoyed going out every day with the AKP Smoking Cessation Programme. It opened my eyes to different ways of working, it's more like a family. The APK workers give a huge amount of support to their clients, it's hard to describe, it's very powerful
- I met and made new friends and have new links with the staff of Kokiri
- If I had to go back to New Zealand and work along with them I would be more than happy to do it again.

Whilst ARC has supported this initial visit, KAMSC will be looking to facilitate further cultural exchanges with Maori tobacco workers.

Lessons for the future learned from the project

The next phase involves translating the findings from the BOABS Study and other smoking cessation programs for Indigenous people (eg AKP) into the development of the BOABS program, which will be rolled out across the Kimberley region. The implementation of BOABS Study and AKP demonstrated the importance of having a clear and consistently applied program with a core element (motivational interviewing and development of action plans to determine triggers for smoking/diversions and strategies to deal with them; pharmacotherapy), regular case conferencing, and professional support and ongoing training.

How has the visibility of the ARC contribution been ensured in the Project?

During the translation phase of the BOABS program, the ARC contribution will be acknowledged. The statement "Kimberley Aboriginal Medical Services Council Inc acknowledges the funding provided by the Australian Respiratory Council for this project" and the ARC logo will be added to reports/publications on the BOABS program.

Scholarships, Fellowships - 14 year history

ARC Harry Windsor Biomedical and Postgraduate Research Scholarship Awards (ceased 2002)

Date	Recipient	Subject	Award
1999-2001	George Latouche *University of Sydney, NSW*	Phopholipases as potential virulence factors of Cryptococcus neoformans variety Gattii	$55, 089
1999-2001	Rosemary Santangelo *Westmead Hospital, Sydney, NSW*	Phospholipases of Cryptococcus neoformans	$63,498
1999-2001	Anna Hansen *University of Sydney, NSW*	The role of cytokines in the immunity and pathology of malaria	$56,703
2000-2001	Rita Machaalani *University of Sydney, NSW*	Neurone receptor systems in sudden infant death and piglets exposed to hypercapnic-hypoxia	$37,454
2000-2001	Shoma Dutt *Westmead Hospital, Sydney, NSW*	Biliary lipids in liver disease and interstitial phospholipid metabolism in children with cystic fibrosis	$40,311
2001	Anup Desai *University of Sydney, NSW*	Interaction of mild obstructive sleep apnoea, sleep deprivation and circadian factors in cognitive function	$27,793

ARC Ann Woolcock Biomedical and Postgraduate Research Scholarship Awards – commenced 2002

Date	Recipient	Subject	Award
2002- 2003	Anup Desai *University of Sydney, NSW*	The contribution of obstructive sleep apnoea to driver fatigue in transport drivers	$55,793
2002-2003	Rita Machaalani *University of Sydney, NSW*	Neurone receptor systems in sudden infant death and piglets exposed to hypercapnic-hypoxia	$29,214
2002-2003	Shoma Dutt *Westmead Hospital, Sydney, NSW*	Biliary lipids in liver disease and interstitial phospholipid metabolism in children with cystic fibrosis	$41,793
2002- 2004	Zoe Barker-Whittle (McKeough) *Royal Prince Alfred Hospital, Sydney, NSW*	Evaluation of lung volume reduction surgery in patients with chronic airflow limitation	$59,214
2003-2004	Kylie Turner *University of Sydney, NSW*	Investigation of the structure of cryptococcal phospholipases	$40,143
2003-2004	Corrina Parker *Australian National University, Canberra, ACT*	Detection, isolation and characterisation of novel anti-effective agents from cultured micro-fungi	$40,143

ARC Ann Woolcock Fellowship Awards – commenced 2005

Date	Recipient	Subject	Award
2005-2009	Ingrid Laing *Telethon Institute for Child Research, Perth,WA*	Genetic Influences on causal pathways of ALRIs in highly susceptible infants	$285,000
2010-2014	Jodie Simpson *Newcastle University, NSW*	Characterisation and treatment of innate immune dysfunction in older people with obstructive airway disease	$157,250

Research Grants - 14 year history

ARC Harry Windsor Medical Research Grants over last 14 years

Date	Recipient	Subject	Award
1999	Ronald Grunstein *Royal Prince Alfred Hospital*	Sleep Apnoea and Cytokines	$22,000
1999	Karen Waters *University of Sydney, NSW*	Potential neurotoxicity of repetitive hypercapnic hypoxia during early treatment	$10,000
1999	Evangelica Daviskas *Royal Prince Alfred Hospital*	Effects of beta2-adrenceptor agonists on mucociliary clearance in persons with asthma	$5,000
1999	Peter Bye, Stefan Eberl and Jenny Alison *University of Sydney, NSW*	Pharmacological and Physical Therapies to enhance mucociliary clearance in chronic lung disease and mucus hypersecretion	$39,000
1999	Bernadette Saunders and Helen Briscoe *Centenary Institute of Cancer Medicine & Cell Biology*	Apoptosis in the control of Mycobacterial infection	$38,000
1999	Graeme Maguire, Norma Benger and Bart Currie *Menzies School of Health Research*	Chronic Lung Disease in Aboriginal Australians: factors in aetiology and treatment	$69,136
1999	Guy Marks *Institute of Respiratory Medicine*	Does BCG vaccination in infancy prevent allergy	$5,000
2000	Peter Gibson *John Hunter Hospital*	Quality of Life in Chronic Cough	$25,500
2000	Warwick Britton and James Triccas *Centenary Institute of Cancer Medicine & Cell Biology*	Interlukin-18 as an adjuvant for DNA Immunisation against Tuberculosis	$26,500
2000	Peter Bye, Iven Young, Jenny Alison and Marney Isedale *Royal Prince Alfred Hospital*	Evaluation of lung volume reduction surgery in patients with chronic airflow limitation	$38,000
2000-2001	John Wiggers, Afaf Girgis, Robyn Considine, Jenny Bowman *University of Newcastle*	Preventing infant exposure to tobacco smoke: evaluation of an early childhood intervention	$53,006
2001	James Wiley and Tania Sorrell *University of Sydney, NSW*	The monocyte-macrophage P2x7 receptor and susceptibility to tuberculosis	$45,000
2001	Terence Amis and John Wheatley *Westmead Hospital*	The role of snoring and obstructive sleep apnoea in the pathogenesis of hypertension	$45,665
2001	Amanda Baker and Vaughan Carr *University of Newcastle*	Randomised controlled trial of a smoking cessation intervention among people with a mental illness	$63,370
2002	Evangelia Daviskas, Sandra Anderson & Iven Young *Royal Prince Alfred Hospital*	Effect of mannitol on the clearance of mucus in patients with COPD	$38,593
2002	Amanda Leach, Heidi Smith-Vaughan Marius Puruntamerri, Ross Baillie & Peter Morris *Menzies School of Health Research*	Improved hygiene measures for reduced infection in Australian Aboriginal Children: a randomised controlled trial	$48,424
2002 -2003	James Triccas & Warwick Britton *Centenary Institute of Cancer Medicine & Cell Biology, Sydney, NSW*	New strategies to vaccinate against Mycobacterium tuberculosis	$112,588
2003	Jennifer Alison, Peter Bye, Campbell Thompson *Royal Prince Alfred Hospital, Sydney, NSW*	Evaluation of individual components of pulmonary rehabilitation in subjects with COPD	$47,880
2004	Paul Kelly, Nick Anstey, Graeme Maguire et al *Menzies School of Health Research, Darwin, NT*	Pulmonary Function in Tuberculosis patients in Mimika District, Papua Province , Indonesia	$43,267
2004	Warwick Britton, Guy Marks and Bernadette Saunders *Centenary Institute of Cancer Medicine & Cell Biology , Sydney, NSW*	Evaluation of genetic and environment risk factors for progression to active tuberculosis in the Liverpool cohort	$44,701
2005	Kwung Fong & Annalese Semmler *Prince Charles Hospital*	Novel methylated genes in lung cancer	$52,250
2005	Paul Reynolds, Gregory Hodge, Sandra Hodge, Mark Holmes *Royal Adelaide Hospital, Adelaide, SA*	Infection versus rejection in lung transplant related bronchiolitis obliterans syndrome: can intracellular cytokines help?	$50,000
2006	Robert Capon *University of Queensland*	A new non-toxic approach to controlling bacterial infection	$49,000
2006	David Jans *Monash University, Melbourne, VIC*	Role of phosphorylation in regulating nuclear trafficking during infection of respiratory syncitial virus matrix protein	$50,000
2006	Paul Kelly, Graeme Maguire, Peter Morris, Ivan Bastian & Nicholas Anstey *Menzies School of Health Research, Darwin, NT*	Nutritional intervention to improve tuberculosis treatment outcome in Timika, Indonesia: the NUTTS study	$50,000
2007	Stephen Bozinovski and Ross Vlahos *University of Melbourne, Melbourne, VIC*	Cigarette smoke chemically modifies and inactivates lung innate immunity mediated by the bacterial receptor, TLR4	$50,000
2007	Siobhain Brennan and Anthony J Kettle *Telethon Institute for Child Health Research, Perth, WA*	Investigating markers of oxidative stress in young children with cystic fibrosis: a driving mechanism of pulmonary investigation	$50,000
2008	Stephen Stick, Anthony Kicic & Siobhan Brennan *University of WA, Perth, WA*	A randomised controlled trial of L-arginnine or vitamin D to improve outcomes in pulmonary tuberculosis	$50,000
2008	Jenny Alison *University of Sydney, NSW*	Optimising mucus clearance with exercise in cystic fibrosis	$50,000
2009	Sandra Hodge *Hanson Institute, Adelaide, SA*	Investigation of macrophage function as a therapeutic target in chronic obstructive pulmonary disease/emphysema (COPD)	$50,000
2010	Peter Bye *Royal Prince Alfred Hospital, Sydney, NSW*	Novel interventions for the diverse population of Australia with bronchiectasis	$50,000
2010	Peter Bye *Royal Prince Alfred Hospital, Sydney, NSW*	Novel interventions for the diverse population of Australia with bronchiectasis	$50,000
2011	Ross Coppel, Paul Crellin et al *Monash University, Melbourne*	Identification of inhibitors of PimA, a new target for tuberculosis therapy	$50,000
2012	Dr Bernadette Saunders *Centenary Institute, Sydney*	Microparticles and microRNA as biomarkers of TB disease	$50,000

Projects - 14 year history

ARC Project Awards

Date	Recipient/Project	Award
1999	Funded purchase of course textbooks for Epidemiology Workshop in Port Moresby	$1,000
1999	Visit to Port Moresby & Lae to evaluate the DOTS TB Programme	$4,000
1999	Provided funding for the translation of "Tobacco or health: A Global Threat" through Teaching Aids at Low Cost	$3,000
2000	Participation in the WHO, "First Stop TB Meeting in the Pacific Islands" in Noumea	$4,000
2000	Sponsored Professor Don Enarson, Scientific Director of IUATLD, to be guest speaker at the NSW Health Department TB Nurses Conference	$3,000
2001	Distribution of books: Clinical Tuberculosis and Tobacco or Health: A Global Threat through Teaching Aids at Low Cost.	$2,000
2002 - 2006	TB laboratory Training Tonga, Samoa, Kiribati and the Cook Islands	$189,231
2005	Maningrida Lung Health Community Awareness Raising Pilot Project Funding (James N Kirby Foundation $12,000)	$20,000
2006	Building of TB Laboratory at Tunguru Hospital Kiribati	$30,000
2006	TB Nurse Training in Kiribati	$41,699
2006-2011	PITCA Training of nurses and related workers in the Northern Pacific Funding	$90,265
2007-2008	Secretariat of Pacific Community Enhancing Community involvement in TB control through Theatre in Kiribati	$40, 926
2007-2009	Aboriginal Health and Medical Research Council (AH&MRC) BREATHE: Project. This project aims to reduce smoking-related disease and morbidity for Aboriginal people in NSW communities	$490,200
2007-2009	Aboriginal Health Council of Western Australia (AHCWA) Beyond the Big Smoke: a clear vision for Aboriginal tobacco control in Western Australia	$200,000
2008-2009	Secretariat of Pacific Community TB Drama Video Production in Kiribati	$35,000
2009-2012	Cambodian Anti-Tuberculosis Association Cambodia: TB control in elderly and vulnerable groups and in factories	$110,637
2009	Federated States of Micronesia Capacity Building for TB nurses and related health workers in the Federated States of Micronesia (FSM) – Partnership Eli Lilly	$31,424
2010	Menzies School of Health Research Development of educational resources, 3 Talking posters and 3 flipcharts on pneumonia, bronchiolitis and bronchiectasis	$35,000
2010	Secretariat of Pacific Community Evaluation of the effectiveness of the Community Component of the Kiribati Quality TB Epidemic Control Project	$4,800
2011-2012	Vietnam MECOR Course - Level 1 and Level 2 workshops	$20,000
2011	Kimberley Aboriginal Medical Services Council(KAMSC) Cultural exchange of Be Our Ally Beat Smoking Study(BOABS) workers to visit Maori Tobacco Control Programs in New Zealand	$10,000
2012	Bangladesh Bangladesh MDR-TB Project, an investigation into risk factors for MDR-TB in communities in Bangladesh	$10,000

2012 Financials

Directors' Report

Your Directors present their report on the company for the financial year ended 31 December 2012.

Australian Respiratory Council
(A Company Limited By Guarantee)
A.B.N. 11 883 368 767

Directors

The Directors at any time during or since the end of the financial period are:

Amanda Julie Christensen
Dip Nursing.
Appointed to the Board on 22 February 2001
Interest in contracts: Nil

Clinical Associate Professor Peter Gianoutsos
MB CHB(Univ of Otago), FRACP FACCP.
Appointed to the Board on 15 May 2006. Vice President
Interest in contracts: Nil

Robert Eric Horsell OAM
CPA.
Appointed to the Board on 24 June 1999. Finance Director
Interest in contracts: Nil

Robyn Johnson
GAICD.
Appointed to the Board on 10 September 2012.
Interests in contracts: Nil

David Hugh Macintosh AM
BBS(UTS), FCA.
Appointed to the Board on 19 June 1997. President
Interest in contracts: Nil

Ian W Ramsay
LL.B.
Board Member 2008 - February 2012.
Reappointed to the Board 5 November 2012
Interest in Contracts: Nil

Professor John Paul Seale
MBBS PhD FRACP.
Appointed to the Board on 19 June 1997. Vice President
Interest in contracts: Nil

Clinical Associate Professor Iven Young
BSc(Med), MBBS, PhD, FRACP.
Appointed to the Board on 6 August 1998
Interest in contracts: Nil

Meetings of Directors

The number of Directors' meetings held during the financial period and the number of meetings attended by each Director were:

Name Of Director	Number Held while in Office	Number Attended
Amanda Julie Christensen	5	4
Peter Gianoutsos	5	4
Robert Eric Horsell	5	5
Robyn Johnson	2	2
David Hugh Macintosh	5	4
Ian Ramsay	3	2
John Paul Seale	5	5
Iven Hunter Young	5	4

Directors have been in office since the start of the financial year to the date of this report unless otherwise stated.

Principal Activities

The principal activity of the company during the financial year was to provide funding and expertise of research and projects aimed at improving lung health.

The company's short term objectives are to:

i) continue to build expertise in respiratory health.
ii) foster innovation in respiratory health research.
iii) deliver and measure positive impacts to communities and research.
iv) enhance ARC's role in the country as a unique non-government organisation in the area of lung health.
v) advocate to improve respiratory health, particularly in relation to TB and smoking at state, national and international levels.

The Company's long term objectives are to:

i) develop and support innovative and effective approach to research and development in lung health.
ii) to improve lung health in communities, with an emphasis on disadvantaged groups.

To achieve these objectives, the Company has adopted the following strategies:

i) the Board strives to attract sustainable partnerships.
ii) the Board undertakes fundraising.
iii) the Board actively seeks funding.

The company is incorporated under the Corporations Act 2001 and is a company limited by guarantee. If the company is wound up, the consitution states that each member is required to contribute a maximum of $1.00 towards meeting any outstanding obligations of the company. At 31 December 2012 the collective liability of members was **$32 (2011:$34)**

Auditor's Independence Declaration Under section 307C of the Corporations Act 2001

A copy of the Auditor's Independence Declaration follows this Directors Report.

Signed in accordance with a resolution of the Board of Directors:

David Macintosh AM
Director
Sydney, 18 April 2013

Robert Horsell OAM
Director
Sydney, 18 April 2013

Auditor's Independence Declaration Under section 307C of the Corporations Act 2001 to the Directors of Australian Respiratory Council

I declare that, to the best of my knowledge and belief, during the year ended 31 December 2011 there have been:

i) no contraventions of the Auditor independence requirements as set out in the Corporations Act 2001 in relation to the audit; and
ii) no contraventions of any applicable code of professional conduct in relation to the audit.

BRYAN RUSH & COMPANY
Chartered Accountants

D R Conroy FCA
Principal
Sydney,
Sydney, 18 April 2013

Statement Of Comprehensive Income

For the year ended 31 December 2012

	Note	2012 $	2011 $
Revenue	2	451,972	495,667
Depreciation and amortisation expense	3	(7,923)	(8,068)
Research grants, fellowships and scholarships		(115,088)	(113,500)
Project funding		(50,000)	(57,172)
Investment expense		(12,926)	(13,693)
Consultancy fees		(10,323)	(9,076)
Employee benefits expense		(181,051)	(201,727)
Other expenses		(190,943)	(215,541)
Loss before income tax		(116,282)	(123,110)
Income tax expense	1	-	-
Loss for the year	15	(116,282)	(123,110)
Other comprehensive income after tax:			
Net loss on revaluation of investment property		-	-
Net gain/(loss) on revaluation of financial assets		35,350	(381,739)
Other comprehensive income for the year net of tax		35,350	(381,739)
Total comprehensive income for the year		(80,932)	(504,849)

Statement of Financial Position

As at 31 December 2012

	Note	2012 $	2011 $
ASSETS			
Current assets			
Cash and cash equivalents	5	1,062,733	1,091,217
Trade and other receivables	6	7,464	3,526
Other current assets	7	7,727	8,177
Total current assets		1,077,924	1,102,920
Non current assets			
Financial assets	8	1,999,310	2,056,894
Property, plant and equipment	9	60,296	62,845
Investment property	10	1,550,000	1,550,000
Total non-current assets		3,609,606	3,669,739
TOTAL ASSETS		**4,687,530**	**4,772,659**
LIABILITIES			
Current liabilities			
Trade and other payables	11	69,500	81,350
Employee entitlements	12	15,621	14,750
Total current liabilities		85,121	96,100
TOTAL LIABILITIES		**85,121**	**96,100**
NET ASSETS		**4,602,409**	**4,676,559**
EQUITY			
Reserves	13	2,450,339	2,044,111
Retained earnings	15	2,152,070	2,632,448
TOTAL EQUITY		**4,602,409**	**4,676,559**

Statement of Changes in Equity

For the year ended 31 December 2012

	Capital Profits Reserves $	Asset Revaluation Reserves $	Retained Earnings/ (Accumulated Losses) $	Total $
Balance at 1 January 2011	2,411,980	13,870	2,755,558	5,181,408
Loss attributable to members	-	-	(123,110)	(123,110)
Total comprehensive income for the year	-	(381,739)	-	(381,739)
Transfers on sale of assets	-	-	-	-
Balance at 31 December 2011	**2,411,980**	**(367,869)**	**2,632,448**	**4,676,559**
Loss attributable to members	-	-	(116,282)	(116,282)
Total comprehensive income for the year	-	35,350	-	35,350
Transfers on sale of assets	-	370,878	(364,096)	6,782
Balance at 31 December 2012	**2,411,980**	**38,359**	**2,152,070**	**4,602,409**

Statement of Cash Flows

For the year ended 31 December 2012

	Note	2012 $	2011 $
Cash flows from operating activities:			
Receipts from customers		157,675	276,198
Payments to suppliers and employees		(600,519)	(613,034)
Interest received		55,457	45,653
Distributions received		239,499	248,899
Net cash provided by (used in) operating activities	18	**(147,888)**	**(42,284)**
Cash Flows From Investing Activities			
Proceeds from sale of property, plant and equipment and investments		414,962	304,839
Acquisition of property, plant and equipment		(5,374)	(733)
Payment for investments		(290,184)	(579,963)
Net cash provided by (used in) investing activities		**119,404**	**(275,857)**
Net Increase/(Decrease) in Cash Held		(28,484)	(318,141)
Cash at beginning of financial year		1,091,217	1,409,358
Cash at end of financial year	18	**1,062,733**	**1,091,217**

Notes to and Forming Part of the Accounts

For The Year Ended 31 December 2012

The financial statements are for Australian Respiratory Council as an individual entity, incorporated and domiciled in Australia. Australian Respiratory Council is a company limited by guarantee.

1. Statement of Significant Accounting Policies

Basis of Preparation
Australian Respiratory Council has elected to early adopt the pronouncements AASB 1053: Application of Tiers of Australian Accounting Standards and AASB 20102: Amendments to Australian Accounting Standards arising from Reduced Disclosure Requirements.

The financial statements are general purpose financial statements that have been prepared in accordance with Australian Accounting Standards - Reduced Disclosure Requirements of the Australian Accounting Standards Board and the Corporations Act 2001.

Australian Accounting Standards set out accounting policies that the AASB has concluded would result in financial statements containing relevant and reliable information about transactions, events and conditions. Material accounting policies adopted in the preparation of these financial statements are presented below and have been consistently applied unless otherwise stated.

The financial statements have been prepared on an accruals basis and are based on historical costs, modified where applicable by the measurement at fair value of selected on-current assets, financial assets and financial liabilities.

Revenue
Revenues are recognised at fair value of the consideration received net of the amount of goods and services tax (GST) payable to the taxation authority. Exchanges of goods or services of the same nature and value without any cash consideration are not recognised as revenues.

Interest revenue is recognised on a proportional basis taking into account the interest rates applicable to the financial assets.

Revenue from investment properties is recognised on an accruals basis in accordance with lease agreements.

Dividend revenue is recognised net of any franking credits. Revenue from dividends is recognised when received.

Income from other sources is recognised when the fee in respect of other products or services provided is receivable.

Income Tax
The Company is registered as a charity and is not subject to income tax. Continued exemption for income tax is subject to the requirements for non profit organisations.

Property, Plant and Equipment
Each class of property, plant and equipment is carried at cost less, where applicable, any accumulated depreciation and impairment losses.

Plant and Equipment
Plant and equipment are measured on the cost basis less, where applicable, depreciation and impairment losses. The carrying amount of plant and equipment is reviewed annually by the Company to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the assets employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

The depreciable amount of all fixed assets, including buildings and capitalised lease assets, but excluding freehold land, is depreciated on a straight line basis and diminishing value basis over their useful lives to the Company commencing from the time the asset is held ready for use.

The depreciation rates used for each class of depreciable assets are:

Class of Fixed Asset	Depreciation Rate
Plant and Equipment	7.5% - 50%

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains and losses are included in the income statement. When revalued assets are sold, amounts included in the revaluation reserve relating to that asset are transferred to retained earnings.

Impairment of Assets
At each reporting date, the Company reviews the carrying values of its tangible assets to determine whether there is any indication that those assets have been impaired. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the assets carrying value. Any excess of the assets carrying value over its recoverable amount is expensed to the income statement.

Employee Benefits
Provision is made for the Company's liability for employee benefits arising from services rendered by employees to balance date. Employee benefits expected to be settled within one year together with benefits arising from wages and salaries, annual leave and sick leave which will be settled after one year, have been measured at the amounts expected to be paid when the liability is settled plus related on-costs. Other employee benefits payable later than one year have been measured at the present value of the estimated future cash outflows to be made for those benefits.

Contributions are made by the Company to employee superannuation funds and are charged as expenses when incurred.

Goods and Services Tax (GST)
Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset of as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST.

Cash and Cash Equivalents
For the purposes of the cash flows statement, cash includes cash on hand and at call deposits with banks or financial institutions, investments in money market instruments maturing within less than two months and net of bank overdrafts.

Comparative Figures
Where required by Accounting Standards comparative figures have been adjusted to conform with changes in presentation for the current financial year.

Financial Instruments

Recognition and initial measurement
Financial instruments, incorporating financial assets and financial liabilities, are recognised when the entity becomes a party to the contractual provisions of the instrument. Trade date accounting is adopted for financial assets that are delivered within timeframes established by marketplace convention.

Financial instruments are initially measured at cost plus transactions cost where the instrument is not classified as at fair value through profit or loss. Transaction costs related to instruments classified as at fair value through profit or loss are expensed to profit or loss immediately. Financial instruments are classified and measured as set out below.

1. Fair value estimation
The fair value of financial assets and financial liabilities must be estimated for recognition and measurement or for disclosure purposes.

The fair value of financial instruments traded in active markets such as trading and available-for-sale securities is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Company is the current bid price; the appropriate quoted market price for financial liabilities is current ask price.

2. Loans and receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are subsequently measured at amortised cost using the effective interest rate method.

3. Held to maturity investments
Held to maturity investments are non-derivative financial assets with fixed maturities and fixed or determinable payments, and it is the entity's intention to hold these investments to maturity. They are subsequently measured at amortised cost using the effective interest rate method.

4. Available for sale financial assets
Available for sale financial assets are non derivative financial assets that are either designated as such or that are not classified in any of the other categories. They comprise investments in the equity of other entities where there is neither a fixed maturity nor fixed or determinable payments.

5. Financial Liabilities
Non derivative financial liabilities (excluding financial guarantees) are subsequently measured at amortised cost using the effective interest rate method.

Critical Accounting Estimates and Judgments

The Directors evaluate estimates and judgements incorporated into the financial report based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and are based on current trends and economical data, obtained both externally and within the group.

Key Estimates - Impairment
The Company assesses impairment at each reporting date by evaluating conditions specific to the Company that may lead to impairment of assets. Where an impairment trigger exists, the recoverable amount of the assets is determined.

Value in use calculations performed in assessing recoverable amounts incorporated a number of key estimates.

Key Judgments - Provision for Impairment of Receivables
The Directors believe that the amount included in accounts receivable is recoverable and non provision for impairment has been made at the end of the financial year.

Notes to the Financial Statements
For the year ended 31 December 2012

	2012 $	2011 $
2. Revenue		
Operating Activities		
Net profit/(loss) on sale of investments	25,062	12,761
Rental revenue for property investment	43,802	28,219
Interest received	55,457	45,653
Fund distributions from investments	207,703	248,899
Legacies & donations	1,295	-
Member subscriptions	773	1,163
Refund of franking credits	31,796	56,877
Appeals	63,656	69,524
Sundry income received	22,428	32,571
Total Revenue	451,972	495,667
3. Profit From Ordinary Activities		
Expenses		
Depreciation of Non-Current Assets:		
Plant and Equipment	7,923	8,068
4. Auditor's Remuneration		
Remuneration of the Auditor of the Company for:		
- Auditing the Financial Report	11,220	11,000
5. Cash and Cash Equivalents		
Cash on hand	1,554	2,754
Cash at bank	1,061,179	1,088,463
Total	1,062,733	1,091,217
6. Trade and Other Receivables		
Trade debtors	7,464	3,482
Other debtors	-	44
Total	7,464	3,526
7. Other Current Assets		
Prepayments	7,727	8,177

	2012 $	2011 $
8. Financial Assets		
Non Current		
Listed shares - at fair value	1,092,804	1,068,609
Managed funds - at fair value	906,506	988,285
Total financial assets	**1,999,310**	**2,056,894**
9. Property, Plant and Equipment		
Non Current		
Plant & equipment at cost	127,679	121,595
Less: accumulated depreciation and impairment	(67,383)	(58,750)
Total property, plant and equipment	**60,296**	**62,845**

Movements in Carrying Amounts
Movement in the carrying amounts for each class of property, plant and equipment between the beginning and the end of the current financial year:

	Plant and Equipment $	Total $
Balance at the beginning of year	62,845	62,845
Additions	5,374	5,374
Disposals	-	-
Depreciation expense	(7,923)	(7,923)
Adjustment	-	-
Carrying amount at the end of year	60,296	60,296

10. Investment Property		
Non Current		
Investment property - at fair value	1,550,000	1,550,000
Total	**1,550,000**	**1,550,000**
11. Trade and Other Payables		
Unsecured Liabilities		
Trade payables	31,640	37,985
Sundry payables and accrued expenses	37,860	43,365
Total	**69,500**	**81,350**
12. Employee Entitlements		
Provision for annual leave	7,221	7,981
Provision for long service leave	8,400	6,769
Total	**15,621**	**14,750**
Number of employees		
Number of employees at year end	2	2

	2012 $	2011 $

13. Reserves

Capital profits reserve	2,411,980	2,411,980
Asset revaluation reserve	38,359	(367,869)
Total	2,450,339	2,044,111
Nature and purpose of reserves		
(a) Capital Profits		
The capital profits reserve is used to accumulate realised capital profits		
Balance at end of year	2,411,980	2,411,980
(b) Asset Revaluation		
The asset revaluation reserve is used to record increments and decrements in the value of non current assets		
Balance at beginning of year	(367,869)	13,870
Revaluation increment/(decrement)	35,350	(381,739)
Transfers	370,878	-
Balance at end of year	**38,359**	**(367,869)**

14. Members' Guarantee

The company is limited by guarantee. If the company is wound up, the Constitution states that each member is required to contribute a maximum of $1 each towards meeting any outstanding obligations of the company. At 31 December 2012 the number of members was 32 (2011:34).

15. Retained Earnings

Accumulated profit at the beginning of the financial year	2,632,448	2,755,558
Net profit/ (Loss) attributable to members of the company	(116,282)	(123,110)
Transfers to and from reserves	(364,096)	-
Accumulated profit at the end of the financial year	2,152,070	2,632,448

16. Financial Instruments

(a) Interest Rate Risk

The Company's exposure to interest rate risk, which is the risk that a financial instruments value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on classes of financial assets and financial liabilities, is as follows:

	Weighted Average Floating Effective Interest Rate		Floating Interest Rate		Non Interest Bearing		Total	
	2012 %	2011 %	2012 $	2011 $	2012 $	2011 $	2012 $	2011 $
Financial Assets:								
Cash and cash equivalents	5.23	3.66	1,061,179	1,088,463	1,554	2,754	1,062,733	1,091,217
Receivables	-	-	-	-	7,464	3,526	7,464	3,526
Other financial assets	-	-	-	-	1,999,310	2,056,894	1,999,310	2,056,894
Total Financial Assets			**1,061,179**	**1,088,463**	**2,008,328**	**2,063,174**	**3,069,507**	**3,151,637**
Financial Liabilities:								
Payables	-	-	-	-	69,500	81,350	69,500	81,350
Total Financial Liabilities			**-**	**-**	**69,500**	**81,350**	**69,500**	**81,350**

(b) Net Fair Values of Financial Assets and Liabilities

The carrying amounts approximate the fair values of financial assets and liabilities.

(c) Credit Risk

The credit risk on financial assets of the Company which has been recognised on the Balance Sheet is the carrying amount.

17. Key Management Personnel

Names and positions held of the Company key management personnel in office at any time during the financial year are:

Key Management Personnel

Non Executive Directors		*Executive Officer*
Amanda Julie Christensen	Ian Wallace Ramsay	Kerrie Shaw
Peter Gianoutsos	John Paul Seale	
Robert Eric Horsell	Iven Hunter Young	
David Hugh Macintosh	Robyn Johnson	

Compensation paid, payable or provided to other key management personnel for the year ended totalled $87,749 (2011:$90,608). This comprised short term benefits.

Summary Financial Report

Balance Sheet as at 31 December 2012

	2012 $	2011 $
18. Cash Flows Information		
(a) Cash at the end of the financial year as shown in the cash flow statement is reconciled to items in the balance sheet as follows:		
Cash and cash equivalents	**1,062,733**	**1,091,217**
(b) Reconciliation of Cash Flow from Operations with Profit after Income Tax		
Net income/loss for the period	(116,282)	(123,110)
Cash flows excluded from profit attributable to operating activities		
Non cash flows in profit		
Depreciation	7,923	8,068
Net gain/(loss) on disposal of investments	(25,062)	(12,761)
Changes in assets and liabilities, net of the effects of purchase and disposal of subsidiaries		
(Increase)/decrease in trade and term receivables	(3,938)	62,757
(Increase)/decrease in prepayments	450	9,404
Increase/(decrease) in trade payables and accruals	(11,850)	10,239
(Increase)/decrease in provision for employee benefits	871	3,119
Net cash inflow/(outflow) from operating activities	**(147,888)**	**(42,284)**

Information and declarations to be furnished under the Charitable Fundraising Act 1991, Section 23

(a) Details of aggregate gross income and total expenses of fundraising appeals		
Gross proceeds from fundraising appeals	63,656	69,524
Less: Total direct costs of fundraising	29,856	41,618
Net surplus from fundraising activities	**33,800**	**27,906**

(b) Statement showing how funds received were applied to charitable purposes

This surplus is used for research grants, fellowships and projects.

(c) Fundraising appeals conducted during the financial period

Appeals only.

(d) Comparisons		
Total cost of fundraising/gross income from fundraising	**47%**	60%
Net surplus from fundraising/gross income from fundraising	**53%**	40%
Total cost of services/total expenditure	**100%**	100%
Total cost of services/total income received	**47%**	60%

	Note	2012 $	2011 $
ASSETS			
Current assets			
Cash and cash equivalents	5	1,062,733	1,091,217
Trade and other receivables	6	7,464	3,526
Other current assets	7	7,727	8,177
Total Current Assets		**1,077,924**	**1,102,920**
Non-current assets			
Financial assets	8	1,999,310	2,056,894
Property, plant and equipment	9	60,296	62,845
Investment property	10	1,550,000	1,550,000
Total Current Assets		**3,609,606**	**3,669,739**
TOTAL ASSETS		**4,687,530**	**4,772,659**
LIABILITIES			
Current liabilities			
Trade and other payables	11	44,382	49,893
Borrowings	11	1,131	6,209
Other financial liabilities	11	(5,207)	(7,731)
Provisions	12	15,621	14,750
Other	11	29,194	32,979
Total Current Liabilities		**85,121**	**96,100**
TOTAL LIABILITIES		**85,121**	**96,100**
NET ASSETS		**4,602,409**	**4,676,559**
EQUITY			
Reserves	13	2,450,339	2,044,111
Retained earnings	15	2,152,070	2,632,448
TOTAL EQUITY		**4,602,409**	**4,676,559**

At the end of the financial year the Australian Respiratory Council had no balances in the Inventories, Assets held for sale, Non current Trade and other receivables, Intangibiles, Current tax liabilities and Non Current Liabilities categories.

The above disclosures are prepared in accordance with the requirements set out in the ACFID Code of Conduct.

Summary Financial Report
Income Statement for the year ended 31 December 2012

	2012 $	2011 $
REVENUE		
Donation and Gifts		
Monetary Donation and Gifts - Monetary & Non monetary	63,656	69,524
Bequests and Legacies	1,295	-
Grants		
AusAid	-	-
Other Australian	10,000	20,209
Other overseas	11,976	12,252
Investment Income	363,822	392,408
Other Income	1,223	1,274
Total Revenue	**451,972**	**495,667**
EXPENDITURE		
International Aid Development		
International programs		
Funds to international projects	62,108	45,172
Program Support Costs	24,059	39,951
Community education	5,172	2,721
Fundraising Costs		
Public	29,856	41,618
Government, multilateral and private	-	-
Accountability and Administration	324,671	363,815
Non- Monetary Expenditure	-	-
Total International Aid and Development Programs Expenditure	**445,866**	**493,277**
Domestic projects	122,388	125,500
Total Expenditure	**568,254**	**618,777**
EXCESS / (SHORTFALL) OF REVENUE OVER EXPENDITURE	**(116,282)**	**(123,110)**
Net gain/(loss) on revaluation of financial assets	35,350	(381,739)
EXCESS/(SHORTFALL) OF REVENUE OVER EXPENDITURE	**(80,932)**	**(504,849)**

During the financial year the Australian Respiratory Council had no transactions in the Revenue or Expenditure for International Political or Religious Adherence Promotion Program categories.

The above disclosures are prepared in accordance with the requirements set out in the ACFID Code of Conduct.

Summary Financial Report
ARC's Table of Cash Movements for Designated Purposes for the year ended 31 December 2012

Total For	Cash Available at the beginning of the financial period $	Cash raised during the financial period $	Cash disbursed during the financial period $	Cash available at the end of the financial period $
Australia Research Grants & Fellowships	(65,082)	65,013	(115,088)	(115,157)
Australian Projects	43,814	-	(7,300)	36,514
International Projects	(53,388)	21,976	(78,366)	(109,778)
Community Education	(2,661)	-	(5,172)	(7,833)
Other Purposes	1,168,534	780,604	(690,151)	1,258,987
Total	**1,091,217**	**867,593**	**(896,077)**	**1,062,733**

Note In the year ended 31 December 2012, the Board allocated an amount for international projects. The shortfall in cash reserves is compensated by cash raised from investment activities.

Summary Financial Report
Statement of Changes in Equity For The Year Ended 31 December 2012

	Capital Profits Reserves $	Asset Revaluation Reserves $	Retained Earnings/ (Accumulated Losses) $	Total $
Balance at 1 January 2012	2,411,980	13,870	2,755,558	5,181,408
Excess of revenue over expense	-	-	(123,110)	(123,110)
Total comprehensive income for the year	-	(381,739)	-	(381,739)
Transfers on sale of assets	-	-	-	-
Balance at 31 December 2012	**2,411,980**	**(367,869)**	**2,632,448**	**4,676,559**
Excess of revenue over expense	-	-	(116,282)	(116,282)
Total comprehensive income for the year	-	35,350	-	35,350
Transfers on sale of assets	-	370,878	(364,096)	6,782
Balance at 31 December 2012	**2,411,980**	**38,359**	**2,152,070**	**4,602,409**

The above disclosures are prepared in accordance with the requirements set out in the ACFID code of conduct.

Directors' Declaration

The Directors of the Company declare that:

1. The financial statements and notes are in accordance with the Corporations Act 2001:
   - **(i)** comply with Accounting Standards and the Corporations Regulations 2001; and
   - **(ii)** give a true and fair view of the financial position as at 31 December 2012 and performance for the year ended on that date of the Company;
2. In the Directors' opinion there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors.

David Macintosh AM
Director
Sydney, 18 April 2013

Robert Horsell OAM
Director
Sydney, 18 April 2013

Independent Auditor Report

To The Members of the Australian Respiratory Council

Australian Respiratory Council
(A Company Limited by Guarantee)
A.B.N. 11 883 368 767

Report on the Financial Report

We have audited the accompanying financial report of Australian Respiratory Council, which comprises the statement of financial position as at 31 December 2012 and the statement of comprehensive income, and the changes in equity and statement of cash flows for the year ended on that date, a summary of significant accounting policies and other explanatory notes and the Directors' declaration.

Directors' Responsibility for the Financial Report

The Directors of the Company are responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards - Reduced Disclosure Requirements (including Australian Accounting Interpretations) and the Corporations Act 2001, and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence

In conducting our audit, we have complied with the independence requirements of the Corporations Act 2001.

Auditor's Opinion

In our opinion,

(a) the financial report of Australian Respiratory Council is in accordance with the Corporations Act 2001, including:

- **i.** giving a true and fair view of the Company's financial position as at 31 December 2012 of their performance for the year ended on that date; and
- **ii.** complying with Australian Accounting Standards - Reduced Disclosure Requirements (including Australian Accounting Interpretations) and the Corporations Regulations 2001.

(b) We have also audited the summary financial reports of Australian Respiratory Council which in our opinion are in accordance with the requirements set out in the ACFID Code of Conduct.

BRYAN RUSH & CO
Chartered Accountants

D R Conroy FCA
Principal

Sydney, 18 April 2013



SYDNEY 2015

5TH ASIA-PACIFIC REGION CONFERENCE OF THE INTERNATIONAL UNION AGAINST TUBERCULOSIS AND LUNG DISEASE SYDNEY 2015 AUSTRALIA

ORGANISED BY THE AUSTRALIAN RESPIRATORY COUNCIL

arc
australian respiratory council
prevention and cure of respiratory illness

You are invited to the 5th Asia-Pacific Region Conference of the International Union Against Tuberculosis and Lung Disease, Sydney, Australia, 2015.

On behalf of the Australian Respiratory Council, it is my great pleasure to invite you to attend the 5th Asia-Pacific Region Conference of the International Union Against Tuberculosis and Lung Disease, which will be held in Sydney, Australia in 2015.

Sydney is Australia's oldest, largest, most cosmopolitan and exciting city. It has natural beauty, inspiring arts and culture, a dynamic dining scene, exuberant spirit and near perfect climate. Easy to get to, and easy to get around! We offer the warmth of our magnificent city, graced with iconic landmarks and reflected in the world's finest natural harbour. Come explore Sydney, the gateway to Australia.

Australia is home to a range of pre-eminent international experts in TB, lung disease (asthma, COPD, smoking cessation) and HIV, who are looking forward to engaging with the Asia Pacific and international communities at this conference. We welcome this opportunity to connect and collaborate with clinicians, academics, researchers (basic science and operational), field workers across the multi-disciplines, social advocates and the public from within our region and beyond.

Come to Sydney in 2015 and discover innovation, discover technical excellence, discover the future.

Mr David Macintosh AM
President
On behalf of the Board of Directors, Australian Respiratory Council

Visit the ARC website for conference updates
www.thearc.org.au

5th Asia-Pacific Region Conference of the International Union Against Tuberculosis and Lung Disease Sydney 2015

International Union Against Tuberculosis and Lung Disease
Health solutions for the poor



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