

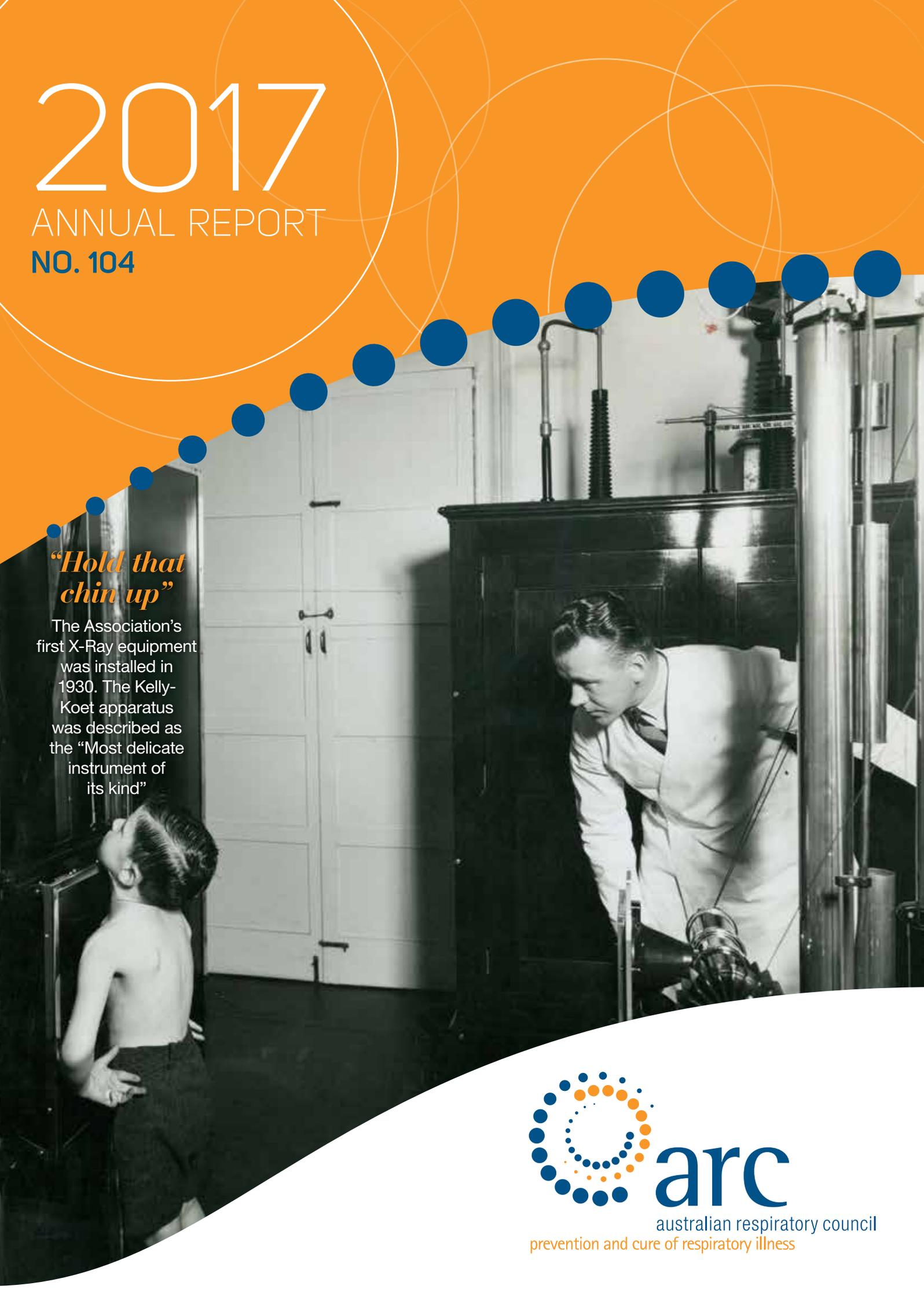
# 2017

## ANNUAL REPORT

### NO. 104

### *“Hold that chin up”*

The Association's first X-Ray equipment was installed in 1930. The Kelly-Koet apparatus was described as the “Most delicate instrument of its kind”



# arc

australian respiratory council  
prevention and cure of respiratory illness

The Australian Respiratory Council (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.

The ARC welcomes feedback. Please send any feedback or complaints to [arc@thearc.org.au](mailto:arc@thearc.org.au) or write to the Executive Director, Australian Respiratory Council, PO Box 942 Broadway, NSW 2007.

The 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](http://www.acfid.asn.au)



The 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*

The Australian Respiratory Council (ARC) is a Constituent Member of the International Union Against Tuberculosis and Lung Disease (The Union). The mission of The Union is to bring innovation, expertise, solutions and support to address health challenges in low and middle income populations.



The Registered Charity Tick is a way for registered charities to easily show the public that they are registered with the Australian Charities and Not-for-profits Commission (ACNC), and it will also help members of the public find information about the charity on the Charity Register. The ACNC encourages members of the public to use the information on the Charity Register to make informed giving decisions.

## Our Vision

A global community with universal and high quality management of respiratory diseases.

## Our Mission

The Australian Respiratory Council (ARC) is a Charitable, Non-Government Organisation that continues to build expertise and sustainable capacity in respiratory health by:

- Fostering innovative research to promote respiratory health
- Improving lung health in communities with an emphasis on disadvantaged groups and Indigenous people
- Actively seeking sustainable solutions through partnerships with like organisations such as the Australian Lung Health Alliance, World Health Organisation, the Stop TB Partnership, Secretariat of the Pacific Community and the US Centers for Disease Control and Prevention
- Bringing focus to and investment in TB and respiratory health
- Respecting relationships with and the contributions of stakeholders and staff.

## Our Patrons



His Excellency General The Honourable David Hurley AC DSC (Ret'd) Governor of New South Wales and Mrs Linda Hurley

# PRESIDENT'S REPORT



I am pleased to report on the activities and outcomes of the Australian Respiratory Council (ARC) in 2017. My report will highlight the work undertaken this year by our organisation, our project partners and funding recipients over the past 12 months.

## President's Report 2017

I commence my report advising of the resignation of ARC's Finance Director, Robert (Bob) Horsell OAM. Bob was appointed to ARC's Board of Directors in 1999 and served as the Finance Director until the time of his resignation in February 2017. I would like to acknowledge the contribution that Bob has made to the financial stability and effectiveness of ARC over an extended period of time and thank him for the support he has provided to the Directors and staff. On behalf of the Directors I would like to wish Bob all the best for his future endeavours.



This year ARC invited Chris Turner and Associate Professor Greg Fox to join the Board of Directors. I am pleased to report that both Chris and Greg are making a significant contribution to the organisation. Chris is serving as the Finance Director and Greg continues in his role as an active member of ARC's Research Committee. I welcome Chris and Greg and look forward to working with them in the future.

## Finances

In 2017, the Finance Team, led by, Robert Horsell OAM and Chris Turner, and supported by Peter Gianoutsos, Robyn Johnson and the staff of the ARC worked to ensure the wise investment and continuation of funding for operational, research and project activities. I would like to acknowledge the diligence and commitment of the Finance Team, your work and contribution is greatly appreciated.

In summary, ARC recorded a profit of \$600,420 this year (compared to a loss of \$232,224 in 2016). In 2017, ARC had an operational loss of \$381,471 (against a projected loss of \$383,194) and an asset revaluation gain of \$981,891 (compared to a loss of \$38,712 in 2016). It is worth noting that the revaluation of ARC's property, the costs associated with relocating our offices to the Woolcock Institute and the refurbishment of our O'Connell Street property had an impact on ARC's finances this year.

Further information on ARC's financial statements are detailed on pages 36 to 53 of the annual report.

## Research funding and activities

I am pleased to advise that ARC continues to fund research activities. This year, funding of \$100,000 was awarded under the Harry Windsor Research Grant Scheme and \$20,000 was awarded to the ACTnet Group to support Tuberculosis (TB) related research activities.

The grants awarded under the Harry Windsor Research Scheme

were awarded to Professor Michael Berk and team from Deakin University in Victoria. Professor Berk's research focused on reducing tobacco smoking using N-acetylcysteine as a cessation treatment. It is important to note that tobacco smoking continues to be a major cause of death and disability. New treatments that are accessible and available at a low cost that can assist smokers to quit smoking are urgently needed. Professor Berk through his research hopes to help people to stop smoking and stay tobacco free.

The second grant was awarded to Associate Professor Greg Fox from the Woolcock Institute. Associate Professor Fox's research focusing on new digital strategies to enhance TB treatment adherence in Vietnam. This study will evaluate two mobile health (mHealth) applications as strategies to improve patient adherence with treatment in the context of the National TB Program. The study will determine the health system costs associated with this approach, and provide evidence to inform future studies about mHealth in high-burden settings such as Vietnam.



Detailed reports on the research projects and activities funded by ARC in 2017 are included in the annual report on pages 14 to 17.

## Project activities

**Building health system capacity in Vietnam and Cambodia** - In 2017, ARC funded for the seventh year the Methods in Clinical and Operational Research (MECOR) Program. The MECOR Program lead by Professor Guy Marks was held in Vietnam in March, 2017. Participants from Vietnam, Cambodia and Laos attended the program.

This project involves a partnership approach between the Ministry of Health and National TB Programs in each country, the Woolcock Institute, the American Thoracic Society, Vietnam Lung Association against Tuberculosis and Lung Diseases and the Vietnam National Lung Hospital.

The primary objective of the MECOR project is to develop capacity in future leaders in respiratory public health. This capacity will include the ability to interpret and use published evidence to guide policy development and disease management and generate research ideas and to design and implement studies to investigate these ideas.

**Supporting the World Health Organization (WHO) in project activities in Papua New Guinea (PNG)** - TB remains a problem of public health importance in the Asia-Pacific Region. Approximately 5 million cases of TB occur within the region each year, claiming the lives of about 800,000 people, more than all other infectious diseases combined. The TB incidence rate in PNG is the highest in the Western Pacific Region and 10th highest globally.

National TB Program data indicate that there is ongoing transmission of TB within communities and households within PNG, with low treatment success rates and approximately a quarter of the patients lost to follow up. The current treatment outcomes indicate poor quality case holding, treatment and management.

The financial costs to patients of TB diagnosis and care are thought to be a significant impediment to further improving TB control. There have been no studies conducted on the economic impact of TB for patients in the Pacific, or in PNG, where patient costs are likely to be high due to the fact that approximately 85% of the population live outside of urban areas in scattered urban communities that are at times, inaccessible due to the geography and terrain. The high rates of TB in PNG reflect a situation of poverty and are compounded by challenges in the quality and reach of the health care system.

ARC has contributed funding this year for a project team led by WHO to undertake an economic evaluation of TB patient costs in PNG. Co-funding for the project has been provided by; the WHO



PNG Country Office, WHO Western Pacific Regional Office and the Australian Department of Foreign Affairs and Trade.

**Education Framework for Australian TB Nurses** – ARC's Nurse Consultants Group continues to lead the work associated with developing an education framework for Australian TB Nurses. The need to progress an approach to education for TB Nurses that is qualification based, internationally recognised and accessible underpins the work of the ARC Nurse Consultants and the National Reference Group.



The course being developed will provide participants with the principles of TB nursing in order to improve knowledge and skills for the provision and coordination of evidenced based clinical and public health management of TB. Nursing care for people with TB spans the spectrum from social determinants of health to complex individualised case management. Participation in specialist education enables the development of knowledge and skills required to work effectively within the Australian TB Program and contributes to enhanced global TB control.

**Education and training of nurses at the Pacific Island TB Controllers Association Conference** - Work continues by ARC's Nurse Consultants Group in the provision of training, technical support and clinical mentoring for nurses and community workers within the Pacific Island Countries and Territories. The ARC Nurse Consultants Group continues to work in collaboration with the US Center for Disease Control and Prevention (CDC) and program staff from the respective countries and territories to build capacity and skill levels for the nurses and community workers. This work has become a significant activity for ARC over the past decade.

Reports on the project activities ARC has funded and are engaged in are included on pages 18 to 26 of this report.

# PRESIDENT'S REPORT

## Partnership activities

At the core of the values of the ARC is the approach to working in partnership with other agencies. In 2017, ARC continued to work with The International Union Against TB and Lung Disease (The Union), the WHO and the CDC to fund and deliver projects, provide training and technical support for health care workers, promote respiratory health and global TB elimination. A summary of the work and partnership activities of ARC are provided within the annual report.

## Building new partnerships

This year ARC developed a new partnership with the United Nations Association of Australia (UNAA). The UNAA is a non-profit, non-government organisation, endeavouring to inform and engage Australians with the work, goals and values of the United Nations. The UNAA was formed in 1946 and has had an advocacy role bringing together governments, organisations and civil society, clearly aligning with ARC's goals and values.

David Macintosh AM, ARC's Vice President has been elected to the Executive Committee/Board of Directors for the NSW Division of the UNAA. Through his work with the UNAA, David recognised the synergies between the agencies and the potential for cross promotion and joint advocacy activities. Of particular interest to the UNAA is advocacy and support for the Pacific Island nations and territories, with the UNAA having linkages and relationships with many of the countries in which ARC has worked and funded projects.

Meetings between ARC and the UNAA NSW Division have identified a number of commonalities and shared areas of interest between both agencies. The UNAA and ARC propose to work together in the coming year to provide advice on Australia's commitment to and engagement in the planned United Nations High Level Meeting on TB to be held in September 2018. The UN meeting provides an unprecedented opportunity to place TB on the global health agenda with the aim of accelerating the implementation of the End TB Strategy and the elimination of TB.

## Building on existing partnerships

**The Union** - In 2017, Amanda Christensen, ARC's Executive Director was elected to the position of Programme Secretary for the Nursing and Allied Professionals sub-section (NAPS) of The Union. The role commenced in October 2017 and is a four year commitment, with the first two years spent as Programme Secretary and the second two years spent as the Chair of the sub-section.

The Programme Secretary assists with coordinating the scientific programme of the annual scientific meetings of The Union and participates in reviewing abstracts submitted for oral and poster

discussion sessions for the annual Union World Lung Conference. The Programme Secretary also promotes the work of The Union, contributes to and progresses the work of NAPS working groups, engages with, and corresponds with NAPS members and represents issues relating to nurses and allied professional with The Union. Over the coming year, the work of the NAPS sub-section will focus on developing Terms of Reference and a strategic/operational plan for the NAPS Group, promoting membership and defining the role and activities of NAPS with The Union and global TB Programs.

Amanda Christensen representing ARC continues to support the work of The Union within the region as a member of The Union Asia Pacific Region (APR) Executive Committee, performing the role of Treasurer for The Union APR.

**World Health Organization Western Pacific Regional Green Light Committee (WHO WP rGLC)** – Amanda Christensen continues the second year of her appointment as a member of the WHO WP rGLC. The committee's aim is to support countries within the region in scaling up the programmatic management of drug resistant TB. In-country missions to review TB Programs, review of policy, program documents and training curriculum have been undertaken this year.

## Acknowledgement and thanks

I would like to extend my personal thanks to ARC's Directors who continue to dedicate their time and expertise in a voluntary capacity to the organisation. The contribution of each Director is greatly appreciated.

Thank you to the staff of ARC, Amanda Christensen, Judy Beggell and Miranda Juhl for your continued commitment and enthusiasm to the work of our organisation over the past year. Miranda Juhl, ARC's casual administrative assistant left ARC in August to take up full time employment. I would like to wish Miranda well for her future.

On behalf of Professor Iven Young AM, Chair of ARC's Research Committee, I would like to acknowledge the contribution of the Research Committee. This year Associate Professor Justin Denholm joined ARC's Research Committee. I would like to welcome Justin to the committee and thank all the committee for their support in assisting ARC to achieve our research goals.

I would also like to acknowledge the ongoing contribution that the ARC Nurse Consultants Group has made to the work ARC supports and undertakes within the region. The expertise and ongoing commitment demonstrated by Pam Banner, Kerrie Shaw and Amanda Christensen to ARC, our partners and projects is greatly appreciated.

In addition, my thanks and those of the Board are extended

to Heath McLaren and his team at Macquarie Bank for their financial guidance in 2017 and to David Conroy and Roy Chong for their expertise and assistance in meeting our annual auditing responsibilities.

Finally, I extend my sincere thanks and gratitude to ARC's donors without whom we would not be able to continue our work. The loyalty and generosity of our donors, many of whom have been supporting our work for many years is greatly valued by everyone involved with our organisation as well as the recipients of our research and project funding. I hope through this report, our publications and website we can share with you how your donations contribute to respiratory health and the work of ARC.

### The year ahead

In 2018, through the Harry Windsor Research Grant Scheme ARC will support two research projects. The first grant has been awarded to Dr Paul King from Monash University, Victoria. Dr King and team will undertake a research project on "The role of influenza infection in the development of phagocyte extracellular traps in the lung". The second grant has been awarded to Professor Cynthia Whitchurch from the University of Technology Sydney. Professor Whitchurch's project will look at "Understanding the immunopathology of Pseudomonas aeruginosa lung infections". I wish both groups success in their work.

Funding support will also continue for the Australasian Clinical Tuberculosis Network (ACTnet) to pursue their innovative high-quality research activities that contributes to the goal of global elimination of TB by addressing it within the Australian community.

Some of the project work ARC will be undertaking and/or supporting this year includes continued funding for MECOR, development of a specialised education curriculum for Australian TB Nurses and training for nurses working within the TB Programs of the Northern Pacific.

My sincere thanks to the many people that will be involved with ARC in 2018. I look forward to my continued relationship with you all in the coming year.



Emeritus Professor J Paul Seale AM  
MB BS, PhD, FRACP  
President

# GOVERNANCE

## BOARD OF DIRECTORS

### AMANDA CHRISTENSEN

*Dip Nursing*



NSW TB Program Manager 1997- 2013; various positions in public health for over twenty years including; clinical nurse consultant in public health Corrections Health Service and tuberculosis control for the NSW Ministry of Health. Appointed to the Board in 2001. Elected as a Life Governor in 2011. Employed as the ARC Executive Director from April 2008 to May 2009 and April 2013 – Present. Elected as Treasurer for The Union Asia Pacific Region 2016 to 2020. Elected as Programme Secretary of The Union Nursing and Allied Professional Group 2017 - Present.

### ASSOCIATE PROFESSOR GREG FOX

*PhD MPH FRACP MBBS BSc(Med)*



NHMRC Career Development Fellow and Associate Professor in Respiratory Medicine at Sydney University. A member of the Guideline Development Committee for MDR-TB diagnostics for the World Health Organization.

Actively involved in research capacity building, as Faculty for the Vietnam MECOR (the American Thoracic Society Methods in Clinical and Operational Research) program since 2011 and Faculty for the McGill University International TB Research Methods course since 2014. Appointed to the Board of ARC in 2017.

### CLINICAL ASSOCIATE PROFESSOR

#### PETER GIANOUTSOS

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



Appointed Emeritus Consultant Physician RPAH, 1 January 2014; Senior Consultant Thoracic Physician (VMO) Dept of Thoracic Medicine RPAH 1971-2013; 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 2000-2003. Appointed to the Board of ARC in 2006. Vice President 2008 - Present. Elected Life Governor of ARC in 2012.

### ROBYN JOHNSON

*GAICD*



Robyn Johnson is the Chief Executive Officer of Meetings & Events Australia that is a not for profit organisation representing 600 members in the events sector. Meetings and Events Australia offers professional development and educational programs, accreditation and recognition. It provides a forum for members to discuss current issues to improve the delivery of events.

Prior to this role Robyn was the Managing Director of an event management company that organised international and national conferences for the association, government and corporate sectors.

Robyn is a graduate of the Australian Institute of Company Directors and has a solid background in developing and implementing business strategies for organisations. Appointed to the Board of ARC in 2012.

### DAVID MACINTOSH AM

*BBS (UTS), FCA*



Member of the Order of Australia 2011, awarded National Medal for Service 2014, Chairman, The Macintosh Foundation, Macintosh Chair of Paediatric Respiratory Medicine - Endowed Chair 29 November 2005 in perpetuity; Founder since 2013 and Benefactor since 2007, Royal Alexandra Hospital for Children - 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 1994-2013; Governor, St Vincent's Hospital, Curran Foundation; Benefactor, Melanoma Institute of Australia; Director, Ainsworth Charitable Foundation 2016 – Present; Executive Chairman, Manager Director and Independent Director of ASX listed Public Companies and private Companies over 28 years; 35 years of Senior Management and Director level in the Transport and Construction Industries in Australia and Europe;. Actively involved in the Surf Life Saving movement for over 50 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.; Director, United Nations Australia Association 2017 – Present; Appointed Australian United Nations Goodwill Ambassador – Life Under Water SDG-14, 2018 – Present; Appointed to the Board of ARC in 1997; President of ARC 2000-2013;. Vice President of ARC 2013 - Present; Elected Life Governor of ARC in 2010.

**IAN W. RAMSAY***LL.B (Syd.)*

Solicitor, Supreme Court of NSW; General Manager and Board Director, WorkCover NSW (1988-1997); Chairman, Dust Disease 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). Appointed to the Board of ARC in November 2008 - November 2011. Chair, of Centenary Celebration Committee. Reappointed to the Board of ARC in February 2012.

**EMERITUS PROFESSOR J PAUL SEALE AM***MB BS, PhD, FRACP*

Member of the Order of Australia, 2014. Professor of Clinical Pharmacology, University of Sydney 1992- 2014; Pro-Dean, Faculty of Medicine, University of Sydney 1997-2003; Consultant Physician, Royal Prince Alfred Hospital 1980-2013; Deputy Director, Woolcock Institute of Medical Research; Member 2003-2012, former 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 Respiriology; former Chairman, NSW Therapeutics Advisory Group; former Chair TB Committee, Sydney South West Area Health Service; former Member of NSW Health TB Advisory Committee; Appointed to the Board of ARC in 1997; Vice-President 2003 - 2012. President 2013 - Present; Elected Life Governor of ARC in 2007.

**KERRIE SHAW***Registered Nurse*

TB Coordinator South Eastern Sydney Local Health District (Northern Sector) 2013 - Present; Executive Officer Australian Respiratory Council 2009-2013; Manager Department of Respiratory Medicine, TB Coordinator, TB and Respiratory Clinical Nurse Consultant 1998-2009; Asthma Coordinator and TB Clinical Nurse Specialist South Eastern Sydney and Illawarra Area Health Service (Southern Sector) 1992-1998; Chair and Program Secretary, Nurses and Allied Health Subsection International Union Against TB and Lung Disease 2009-2013; Appointed to the National Asthma Expert Advisory Group 2006; Appointed to the Board Asthma Educators Association (NSW) 1992 and Board Australian Asthma and Respiratory Educators Association 2006, Life Member 2011; Appointed to Board of ARC in 2013.

**CHRISTOPHER TURNER***B.Comm Dip.FS Assoc. Fin. FPA*

'Turner Wealth Management' Commonwealth Financial Planning Pathways (Commonwealth Bank of Australia) May 2016 - Current, Senior Financial Planner Relationship Managed Clients; CBA Oct 2010 – May 2016, Commonwealth Financial Planning (Commonwealth Bank of Australia) Financial Planner (Inner and Mid West) May 2007 – Oct 2010; Business Analyst / Project Manager (CMLA) (Commonwealth Bank of Australia) January 2004 – May 2007; Manager Operations/Projects, Resource Planning (Commonwealth Bank of Australia) September 2002 – January 2004; Service Consultant / Resource Analyst (Commonwealth Bank of Australia) August 1999 – September 2002; Senior Sales & Marketing Manager Sarran Pty Limited 1994 – 1995; B. Comm Newcastle University 1990 – 1993. Appointed to Board of ARC in 2017.

**CLINICAL PROFESSOR IVEN YOUNG AM***BSc (Med), MB BS, PhD FRACP*

Senior Physician, Department of Respiratory and Sleep Medicine, Royal Prince Alfred Hospital (RPAH) 2012 - present; Visiting Medical Officer, RPAH 1979-1985; Senior Staff Specialist in Respiratory Medicine, RPAH 1985-2012; Post Doctoral Fellow, University of California, San Diego 1976-1978; Research Fellow, University of Sydney 1974-1976; Respiratory Physician (FRACP)1975-Present; Member, Thoracic Society of Australia and New Zealand; Senior Examiner, Australian Medical Council 1997-Present; elected to the Adult Medicine Division, Royal Australasian College of Physicians 2000-2001; Chairman, Division of Medicine, RPAH 2001-2009; Chair, Physician Training Council, HETI 2010- Present. Board Member Woolcock Institute of Medical Research 1998 – 2017 when appointed a distinguished alumnus. Appointed to the Board of ARC in 1998. Elected Life Governor of ARC in 2003. Chair of ARC Research Committee. Awarded the Society Medal of the Thoracic Society of Australia and New Zealand at the Perth Annual Scientific Meeting, April 2016. Appointed a Member of the Order of Australia on 13 June 2016 "For significant service to respiratory and sleep medicine."

# GOVERNANCE

## RESEARCH COMMITTEE



**Clinical Professor Iven Young AM (Chair)**  
Chair, Physicians Training Council.



**Associate Professor Greg Fox**  
NHMRC Career Development Fellow and Associate Professor in Respiratory Medicine at Sydney University.



**Professor Carol Armour**  
Executive Director, Woolcock Institute of Medical Research  
Professor of Pharmacology & Associate Dean (Career Development & Research), Sydney University.



**Professor Peter Gibson**  
Senior staff specialist & Director of Ambulatory Care & Sleep Medicine at the John Hunter Hospital, Conjoint Professor of Medicine in Faculty of Health, Newcastle University, Co-Director of the VIVA Programme, Hunter Medical Research Institute. President of Thoracic Society of Australia and New Zealand (TSANZ).



**Professor Judith Black AO**  
Research Adviser Health & Medical, Sydney University,  
Woolcock Institute of Medical Research.



**Emeritus Professor J Paul Seale AM**  
ARC President (ex officio).



**Associate Professor Justin Denholm**  
Medical Director, Victorian Tuberculosis Program, Melbourne Health; and Principal Research Fellow, Department of Microbiology and Immunology, University of Melbourne.



# PRESIDENTS AND LIFE GOVERNORS

## The National Association for the Prevention and Cure of Consumption

Year	President
1913 - 1917	Sir Phillip Sydney Jones
1918 - 1922	Dr Frederick Sobieski Vladimir Zlotkowski
1922 - 1928	Hon. George Frederick Earp MLC
1929 - 1930	Thomas Ernest Rofe

## Anti-Tuberculosis Association of NSW (from 1931)

Year	President
1931 - 1934	Thomas Ernest Rofe
1935 - 1941	William Grazebrook Layton CBE
1941 - 1942	Phillip Lazarus JP
1942 - 1944	Sir Ernest Thomas Fisk
1944 - 1953	Zade Lazarus
1954 - 1955	Hon. Justice Edward Parnell Kinsella CBE
1955 - 1959	Ebenezer Richard Bagery-Parker
1959 - 1960	Harold Bruce Gibson
1960 - 1967	Hon. Justice Edward Parnell Kinsella CBE
1967 - 1972	Professor Noel Desmond Martin AM

## Community Health and Anti - Tuberculosis Association (from 1973)

Year	President
1973 - 1994	Professor Noel Desmond Martin AM
1995 - 1999	Professor Ann J Woolcock AO
1999 - 2000	Dr Gregory Joseph Stewart
2000 - 2001	David Hugh Macintosh AM

## Community Health and Tuberculosis Australia (from 2001)

Year	President
2001 - 2006	David Hugh Macintosh AM

## Australian Respiratory Council (from 2006)

Year	President
2006 - 2013	David Hugh Macintosh AM
2013 - Present	Emeritus Professor J Paul Seale AM

Year	Life Governors
1932	Honourable George Frederick Earp MLC, CBE (C)
1934	Sir John Sulman
1934	Sir Kelso King and Lady King
1966	Sir Harry Wyatt Wunderly
1996	Dr Keith Wellington Hills Harris AM
2003	Professor Noel Desmond Martin AM
2003	Clinical Professor Iven Young AM
2003	Emeritus Professor Ian W Webster AO
2007	Emeritus Professor Charles Baldwin Kerr AM
2007	Emeritus Professor J Paul Seale AM
2009	David Hugh Macintosh AM
2011	Amanda Christensen
2011	Professor Gavin Frost
2012	Robert Horsell OAM
2012	Clinical Associate Professor Peter Gianoutsos



# SUPPORTERS OF ARC



## BREATH OF LIFE

A Bequest to ARC provides a way to continue a lifetime of generous giving

**“ Be the change you wish to see in the world ” – Ghandi**

One of the most important ways that ARC's loyal donors are helping ARC's work is by including a bequest to ARC in their Will. Bequests left to ARC are made from people from all walks of life, not just the wealthy. Even a modest gift can be life-changing for someone in need. When you choose to leave a gift in your will, it benefits the whole community

Your Will allows you to express support for your fundamental values and have an impact on the health and well being of future generations – not only by the inheritance you leave to your family and friends but also the gift you can leave for the well-being of the community through ARC. After you have made provision for your family and friends in your Will, you may like to consider the Australian Respiratory Council (ARC) as a worthy recipient.

Such a gift to ARC would ensure that your name would always be remembered. By informing us of your intended bequest, ARC will be able to acknowledge you as a member of The Breath of Life group. The Breath of Life is a group of special people who have told us that they plan to leave at least part of their estate to ARC.

Through the Breath of Life group ARC can recognise the generosity and honour the contribution of its members. There is no obligation to becoming a member of The Breath of Life other than letting us know that you intend leaving a bequest in your Will.

A bequest can be of any size and can be given as cash, property or shares. All gifts large or small are important and greatly appreciated. All gifts will make a difference

Whatever amount you bequeath to the Australian Respiratory Council, be assured that it will be an enduring tribute to your generosity and concern for the welfare of your fellow man.

Your Bequest will allow ARC to continue to offer the quality of service you have come to expect from us - reducing the incidence and impact of tuberculosis and respiratory disease in Australia and the Asia Pacific Region.

If you would like to consider leaving a Bequest to ARC, please contact us for a copy of our Bequest booklet, "Your Security, Your Future".

### HONOUR ROLL



MS ALEXANDRA VAN RAALTE

MR JEFFREY WALKER

MS ELIZABETH AMY BARRY AULSEBROOK

MR KENNETH JERVIS CARRICK

MR JOHN ROBINSON

MRS VIOLET WILSON

MR GODFREY

MR J W DE B PERSSE

BARRINGTON GOODERE

MS SARAH AULD

MS JEAN MCIVER CALDWELL

MS EILEEN HOOK

MRS NORA MAILFERT

ANONYMOUS (40)

# 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 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 supports 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

**2005 - 2009**

*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, WA

**2010 - 2014**

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

Dr Jodie Simpson  
University of Newcastle, NSW



## 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](http://www.thearc.org.au)

### Harry Windsor Research Grants

#### 2017 Recipients

**2017**

Can we reduce tobacco smoking using N-acetylcysteine as a cessation treatment.  
*Professor Michael Berk, Deakin University, Victoria*

New digital strategies to enhance tuberculosis treatment adherence in Vietnam.  
*Dr Greg Fox, The Woolcock Institute of Medical Research and the University of Sydney*

# PROFESSOR MICHAEL BERK

Deakin University, Victoria



## Can we reduce tobacco smoking using N-acetylcysteine as a cessation treatment?

### Background

Tobacco smoking is a major cause of death and disability, and available cessation therapies are inadequate for many people. New strategies and treatments to assist people to cease smoking are urgently needed. N-acetylcysteine (NAC), a naturally occurring substance, can reduce symptoms of craving in people with diverse addictions.

### The specific aim of this research

The aim of this project is to investigate the efficacy of NAC (1.8g/day) for smoking cessation in a randomised, placebo-controlled trial of current smokers who wish to quit smoking. The primary outcome measure will be 26 weeks of continuous abstinence from tobacco smoking after the end of treatment (EoT), confirmed by biological measures. Secondary outcome measures include point prevalence abstinence, time to relapse and cigarette consumption. Safety, tolerability and subgroup analyses will also be conducted.

### Outline of the study

The proposed study, (a 16-week double-blind randomised trial), will treat participants (N=60) who are considering quitting

smoking with NAC (1.8/day) or a placebo. They will be followed up 26 weeks after completing treatment to assess relapse rates. The primary outcome measured will be continuous abstinence from smoking for the 26-week period between weeks 16 and 42.

We plan to recruit 60 participants who must be current daily smokers of  $\geq 10$  cigarettes per day, aged 18 or over with capacity to consent to the study and to follow its instructions and procedures, and contemplative of quitting smoking.

Participants will be recruited over a six month period at Barwon Health, Geelong, and will be randomised to NAC or placebo in addition to use of an online QuitCoach program administered to all participants. All participants will undergo a baseline interview face-to-face with a trained clinician.

A 26-week post treatment discontinuation (week 42) follow-up will assess ongoing abstinence. Rating scales to assess mental health status and change over time also will be conducted. Participants requiring follow up after the study budget period will be followed up by one of the study researchers (A/Prof Dodd). Data will be collected by interview at baseline and weeks 8 and 16, and at the follow-up visit, 6 months after completion of the trial. The trial will be undertaken with the approval of the relevant



research and ethics committees, in accordance with the Good Clinical Practice (GCP) guidelines and according to Australian Clinical Trial guidelines and the National Ethical guidelines for Human Research.

### Progress to date

The following approvals have been obtained for the study:

- Certificate of approval awarded by Barwon Health Human Research Ethics Committee, 19 June 2017
- The approval noted by the Deakin University Human Research Ethics Committee, 23 June 2017
- Notification to conduct a clinical trial under the Clinical Trial Notification (CTN) Scheme. Clinical Trial CT-2017-CTN-00640-1 v1 Validated 27 June 2017
- Ethical approval granted by Cancer Council Victoria's Human Research Ethics Committee, 5th Dec 2017

Ms Lauren Arancini has been appointed as Research Assistant and commenced on 15th August 2017. Lauren has since decided to enrol as a PhD student as at 17th January 2018, supervised by our team and using this project for her primary data. This project uses the QuitCoach designed by Professor Borland and his team at the Cancer Council Victoria. Professor Borland is now an active member of the research team of this study and a co-supervisor of Lauren's PhD.

The Investigational product, NAC and placebo has arrived from Canada and is currently with Barwon Health Pharmacy. Other progress includes the purchase of a Smokerlyser and accessories. Saliva collection consumables have also been purchased and Lauren has been trained to collect and freeze sample. An iPad has been purchased, loaded with the participant interview data collection template, and Lauren has been trained to use this.

Advertising for recruitment has commenced (google ads, flyers, online recruitment through healthshare website).

Clinical Trial Progress. The first participant commenced in November 2017. Currently three participants randomised and active, four participants screened and ready to commence their baseline visit and randomisation and a further four people are on the waiting list for the screening visit.

### The expected outcomes and significance of the project

This study will provide evidence of the efficacy and tolerability of NAC as a cessation treatment for Tobacco Use Disorder. It will also provide important feasibility data for further, larger definitive studies to be conducted by our group. Given that smoking remains a major contributor to the global burden of disease, and that current treatment options are suboptimal for many individuals. This project has the capacity to be a substantial contribution to human health.

# ASSOCIATE PROFESSOR GREG FOX

Woolcock Institute of Medical Research and University of Sydney



## New technologies to enhance tuberculosis control in Vietnam

Tuberculosis is the leading infectious cause of death globally, and kills almost two million people each year. Effective antibiotic treatment is available to treat the disease. However, this serious respiratory disease requires at least four antibiotics for a minimum of six months. Many patients find it difficult to take treatment, and health workers in high-prevalence countries are often too busy to adequately supervise adherence with therapy.

In Vietnam, over 130,000 people develop tuberculosis each year. The disease causes around 18,000 deaths across the country annually. A major challenge for the health system in Vietnam is ensuring patients complete their required treatment. With the support of a Harry Windsor Grant, we are undertaking a series of studies that are evaluating new technologies to support treatment adherence in Vietnam.

### The VDOT1 Study

Mobile phone technology has sky-rocketed across the world over the past decade, and Vietnam is no exception. Over 90% of the population has a mobile phone, and around two thirds of the population uses smartphones. Mobile telephones are now available in the most remote settings, even among the poor populations often affected by tuberculosis. This rapid technological change has heralded a revolution in health

care – including in tuberculosis control. The Video Directly Observed Therapy 1 (VDOT1) Study tested a smartphone-based intervention for monitoring patients' adherence to treatment. We enrolled consecutive patients with tuberculosis at three clinics in Hanoi, Vietnam. Patients used their smartphones to upload videos of themselves taking treatment every day for two months. These were reviewed by research staff to ensure compliance with treatment. Patients could also use the smartphone App to report side effects or other problems.

Our study showed that Video Directly Observed Therapy was both feasible and highly acceptable to patients in Vietnam. Among 40 patients enrolled in our study, 88% of doses were correctly recorded and uploaded. Participants rated the smartphone interface highly, despite reporting some initial technical difficulties. The study showed the enormous promise of smartphone-related technology to supporting patients with tuberculosis in Vietnam.

### The VDOT2 Study

Our second study evaluated another new technology used to support patient adherence with tuberculosis treatment. The VDOT2 study is using a Medication Event Reminder Monitor (MERM). This is a plastic box equipped with an electronic monitor, connected to a mobile phone that is contained within



the box. The device records whenever patients open the box, and sends a signal regularly to the mobile phone tower. The device shows whether patients have been opening the box to take treatment. Information from the devices can then be used by health workers, or patients, to understand the reasons for missed doses of treatment.

Following an initial pilot phase, we are now conducting a randomised controlled trial that aims to evaluate the effect of using these boxes upon patient adherence, compared to the standard of care (self-administered therapy). The VDOT2 study is being conducted in Thanh Hoa Province, a semi-rural province about three hours south of Hanoi in northern Vietnam. We plan to recruit over 300 patients to the study by the end of 2018.

To date, the VDOT2 study has demonstrated that MERMs are feasible and acceptable to patients with tuberculosis in Vietnam. A qualitative component of the work has also revealed how patients interact with these new technologies. This study will help us better understand how digital adherence monitoring can be scaled up within a health system in a setting endemic for tuberculosis.

In conclusion, this Harry Windsor Grant has allowed us to undertake two studies of new technologies to support tuberculosis care in Vietnam. This work has importance not only

for patients in Vietnam, but will also be relevant to many other countries where tuberculosis is common.

**Acknowledgements:** The VDOT1 and VDOT2 studies are being undertaken in partnership between the University of Sydney, the Woolcock Institute of Medical Research and the Vietnam National Tuberculosis Program (NTP). Thanks to Dr Nguyen Viet Nhung, Director of the Vietnam NTP, as well as Nguyen Thu Anh, Country Director of the Woolcock Institute in Vietnam.



# PROJECT FEEDBACK



## PROFESSOR GUY MARKS

### Training doctors and public health professionals in research methods for lung health

The Australian Respiratory Council (ARC) continues to support Professor Guy Marks and his team by contributing funds towards the annual Methods in Epidemiological, Clinical and Operational Research (MECOR) course. In 2017 the course was held in Phu Quoc province, Vietnam. The MECOR training was conducted successfully with 37 students across the three levels of the course. They were supported by five experienced international faculty and 11 Vietnamese faculty and teaching assistants who had previously graduated from MECOR level 3 and were experienced in implementing lung health research in Vietnam.

The course is an intensive one week residential activity with the following objectives:

Level 1: The objective of the training is to strengthen capacity and leadership in Methods in Epidemiological, Clinical and Operations Research (MECOR) related to respiratory conditions.

The course content includes subjects on: epidemiology, research design, research methods, biostatistics, and research protocol development. MECOR level 1 students were divided into five small

groups to develop a research protocol based on agreed research questions with close support from faculty and teaching assistants.

Level 2: The objective of the training is to: extend the knowledge of research design, implementation and analysis; develop skills in critical appraisal of scientific evidence; and assist participants to individually develop a research protocol for implementation.

The course content includes subjects on: advance epidemiology, research design, research methods, and biostatistics at an advanced level. The MECOR level 2 students were requested to develop their own research protocol.

During the course basic knowledge and experience on epidemiology, clinical and operational research related to lung health have been shared through a number of presentations. These skills and experiences in both designing a research protocol, research implementation has been shared and discussed through group work and dissemination. In the level 2 course the focus is on developing individual research proposals. The students were guided on how to make their research proposal scientifically valid and feasible.

On the last day of the training, students presented their



research proposals to the faculty and other students in a formal presentation session.

After the one week intensive training course, all students:

- have learnt to develop a testable research question
- understand the various study design options for finding the answers to these questions
- have designed studies and gained a basic understanding of statistics
- have developed a research proposal, some of these proposals are ready to implement.

After completion of the course, participating students will continue to consolidate and implement the research proposal with their mentors. The students have access to the Vietnamese faculty at the National Lung Hospital (NLH) who joined the course and acted as mentors to the students.

Students who wish to be continuously supported to improve their knowledge, skills and experience have joined a regular online Journal Club, which is led by Professor Guy Marks.

During the course, it has been clearly recognised there is a need to have an e-learning platform for students to better prepare, prior to attending the course. ATS is developing MECOR 2.0 and this program will be implemented for MECOR 2018.

MECOR is very appreciative of the continued support provided by its partners. The NTP provides experienced staff as teachers or mentors and has shared experiences on good practice in conducting clinical and operational researches in their hospitals/ program and its subordinates.

At the welcome reception the coordinator of the course provided a short presentation to acknowledge the financial support ARC provides towards the conducting of the course. In addition all training materials, presentations, banners and certificates contain ARC's logo as recognition of this support.



# PROJECT FEEDBACK



## DR RICHARD BROSTROM

### Funding A1c Kits for the Marshall Islands

Globally, the primary driver for tuberculosis (TB) is poverty, overcrowded living conditions, poor access to healthcare, missed and delayed diagnosis of disease. However, in the Pacific, among adults, a significant driver of the high TB rates is poorly controlled diabetes. The Republic of the Marshall Islands has among the highest rates and burden of TB and diabetes in the world. Current screening and management strategies are not effectively addressing the burden of disease, or identifying and addressing the health needs of people with TB and/or diabetes.

A project team led by Dr Richard Brostrom in collaboration with the Republic of the Marshall Islands, Ministry of Health conducted an Active Case Finding activity within the adult population living on Ebeye Island. The team screened 5,165 residents aged over 15 years of age (representing 86% of the population) for active TB, diabetes and Hansen's Disease (leprosy) over a two month period commencing in February, 2017.

The primary aims of the screening activity were to identify people with a delayed diagnosis or missed cases of TB, thereby reducing the potential for ongoing transmission of the disease, reduce poor treatment outcomes, long term health problems, and adverse social and economic consequences for individuals. People found with TB, diabetes or leprosy were referred to the Ministry of Health for care and treatment. The Marshall Islands Ministry of Health stated "that this project is the first step towards improving our ability to diagnose, treat, and prevent TB in our island community".

The ARC provided funding of \$5,264 for purchasing point of care HbA1c glucose test kits to be used as part of the screening activity. Monitoring blood sugar/glucose levels for individuals diagnosed with diabetes is an essential component of understanding the health status of an individual and assessing their risk of progression to TB disease. The traditional methods of assessing blood sugar levels by a blood test are not suitable for this activity given the number of people to be screened and the availability of services in Ebeye. The HbA1c glucose testing can be performed during the consultation with the patient and is a superior test for understanding the control of diabetes within an

individual over time.

Dr Brostrom and the team are in the process of publishing the screening outcomes and results. Mareta Hauma, the TB Coordinator from Ebeye presented an overview of the screening activity, the findings and nursing response to delegates attending the Pacific Island TB Controllers Association Conference held in September, 2017. Mareta advised that two new TB Program nurses have been employed, they have undertaken intensive training for contact investigations and TB case management. TB treatment by supervised therapy continues with the 14 newly trained Community Health Outreach Workers employed within the program. Despite the remarkable increase in workload for the Ebeye TB Program, there is a renewed sense of optimism and organisation for managing the increased workload.

The Marshall Islands Ministry of Health have renewed their commitment to maintaining a strong TB Program to manage the additional cases and drive the TB rates lower.



# PROJECT FEEDBACK



## WORLD HEALTH ORGANISATION

### Technical Report on the Project - Economic Evaluation of Patient costs associated with Tuberculosis diagnosis and care in Papua New Guinea

Dr Tauhid Islam - Medical Officer, Representative of the Office of the World Health Organization in Papua New Guinea

Tuberculosis (TB) remains an issue of public health importance globally and in the Pacific Islands region.<sup>1</sup> Rates of TB remain stubbornly high in many countries in the region including Papua New Guinea where the rates of TB have been increasing since 2009 and peaked in 2014.<sup>1</sup>

Papua New Guinea is considered a high burden TB country by the World Health Organization (WHO) and is one of 30 high burden TB countries globally.<sup>2</sup> The WHO also classify Papua New Guinea as a high MDR-TB and TB-HIV country due to the burden of these two conditions. The latest available estimates from WHO indicate that the TB incidence rate in Papua New Guinea in 2015 was 432 cases per 100,000 population<sup>3</sup> and the TB mortality rate was 40 cases per 100,000 population.<sup>3</sup> The estimated incidence rate is one of the highest in the Western Pacific Region and higher than the Western Pacific average of 86 cases per 100,000 population.<sup>3</sup> The prevalence of drug resistant TB (rifampicin resistance (RR) and multi-drug resistance (MDR) combined) is estimated at 3% of all new cases and 26% of previously treated cases. It is estimated that there are 1100 cases of RR and MDR-TB among all notified pulmonary TB in the country.<sup>2</sup>

Papua New Guinea reports approximately 29,000 TB patients per annum, giving a TB case notification rate of approximately 325 cases per 100,000 population.<sup>3</sup> In 2015, Papua New Guinea reported 342 persons with RR-TB and 97 cases of MDR-TB.<sup>4</sup>

Globally, TB rates have been declining at approximately 1.4-1.5% per annum, however in the Pacific Islands overall and in Papua New Guinea, rates are either increasing or stable, indicating that further actions are needed to reduce the burden of TB.<sup>1,5</sup> These actions should address patient and household level issues which act as barriers to effective TB prevention and care. One such barrier is the cost of health care seeking and TB care to patients, which potentially places an undue economic burden on patients and their families due to their illness. Such costs can create barriers to health care access and treatment adherence, which can affect health outcomes and increase the risk of TB transmission. These costs can also be detrimental to the economic situation of households, as TB predominantly affects people of working age.

The financial costs to patients of a TB diagnosis and subsequent care are thought to be a significant impediment to further improving TB control.<sup>6</sup> The cost of accessing and then remaining in TB care can be substantial, for TB patients and their families.<sup>7</sup> These costs can include direct medical costs (such as paying to see a doctor), direct

non-medical costs (such as transportation to get to the local hospital, accommodation if an overnight stay is needed, etc.) and indirect costs such as time spent away from work, or carer time.

The WHO recently released the End TB Strategy, a bold strategy that outlines the ambitious goal of TB elimination by 2035.<sup>8</sup> Progress towards this target will be measured using three main indicators: TB incidence, TB mortality, and catastrophic costs related to TB diagnosis and care.<sup>8</sup> The WHO have reported estimated TB incidence and mortality since 1997, however the indicator on catastrophic costs is new. The operational definition of "catastrophic costs as a result of TB" refers to medical and non-medical out-of-pocket payments and indirect costs exceeding a given threshold (e.g. 20%) of the household's income. Both medical and non-medical costs are net of any reimbursements to the individual who made the payments.<sup>9</sup>

Estimation of TB patient costs is carried out via health facility surveys and WHO recommends that they be carried out in the next few years to establish baseline information on the economic burden of TB. There have been no surveys of this kind carried out in Papua New Guinea and only one other survey in the Pacific Islands, in Fiji. Solomon Islands are planning a survey. The study being undertaken will assess the economic costs associated with TB diagnosis and care in Papua New Guinea and will be used to advocate for policies and interventions to: minimise barriers in accessing and adhering to TB treatment and care, and mitigate the economic impact of TB for patients and their families in the country.

The relevance and importance of this work on catastrophic costs are clear: reducing these direct payments and income losses related to TB care will contribute to improvements in health outcomes, treatment adherence and in financial protection.<sup>10</sup> Thus, the planned work to assess the magnitude of patient costs and identify the main cost drivers can be used to monitor financial barriers to adherence and inform related health and social policy changes to improve TB control.<sup>10</sup> This perspective is essential because, given the nature of TB treatment, reforms to the health financing system alone are unlikely to be sufficient to enable people diagnosed with TB to fully overcome the barriers to successful completion of treatment.<sup>10</sup> Action on the demand-side is essential, such as extension of certain social protection mechanisms to ensure treatment success for people in the informal sector and vulnerable population groups which comprise most of the TB affected population.<sup>10</sup> Reforms to service delivery strategies are likely also needed in many settings to reduce direct and indirect costs associated with care-seeking.<sup>10</sup> Another potential benefit of implementing this type of survey is that it can also inform the development of more in-depth operational research to investigate identified problems and to evaluate proposed solutions.<sup>10</sup>

The WHO recommends that countries assess the composition and magnitude of these direct and indirect costs through periodic health facility-based surveys.<sup>10</sup> This is complementary to other needed

assessments of local and national TB epidemiology, health seeking, and health care and social service coverage and bottlenecks for TB patients.<sup>10</sup> Such assessments are a fundamental part of the End TB Strategy, which stresses the need for national adaptation based on the local epidemiological and health systems situation.<sup>10</sup>

In order to measure this indicator in a routine and comparable way, WHO have developed a generic survey protocol and data collection tool for field testing.<sup>10</sup> The generic protocol provides guidance on how to conduct a facility-based survey to assess the economic burden (i.e. direct and indirect costs) incurred by TB patients (and their households) and to identify cost drivers in order to guide policies on cost mitigation and also potential interventions to mitigate costs. The protocol also provides guidance on how to measure the proportion of TB patients (and their households) experiencing catastrophic costs, and can thus be used to determine a baseline and periodically measure progress towards the End TB Strategy target of zero catastrophic costs.

### Study goal and objectives

The proposed study aims to undertake an economic evaluation of TB patient costs in Papua New Guinea. The specific objectives of the study include:

1. Determine the direct and indirect costs due to TB diagnosis and care (including during the health seeking period in the lead up to a TB diagnosis);
2. Estimate the proportion of households experiencing catastrophic costs due to TB;
3. Assess if catastrophic costs are associated with poor TB treatment outcomes;
4. Provide recommendations on policies and interventions to minimise barriers for accessing and adhering to TB treatment and care, and mitigate the economic impact of TB for patients and their families; and
5. Plan future research to further examine the determinants of cost barriers among TB patients and/ or to assess the effectiveness of policies and interventions to mitigate these costs.<sup>7,10</sup>

The study will be conducted between October 2017 and March 2019. The project team and collaborating organisations include: The National TB Programme PNG, the WHO Head Quarters, WHO Western Pacific Regional Office and WHO PNG Office, the Australian National University/Karoliska Institute and the United States Centers for Disease Control and Prevention (CDC).

Project funding has been provided by Australian Respiratory Council, WHO and the CDC.

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# PROJECT FEEDBACK



## AUSTRALIAN RESPIRATORY COUNCIL NURSE CONSULTANTS GROUP

### Developing an educational course for Australian Tuberculosis (TB) Nurses

One third of world's population is infected with TB. There is an estimated 10 million new TB cases annually. TB is the leading cause of death associated with an infectious disease and each year there continues to be approximately 1.8 million deaths globally in people with the disease. In Australia, TB Program efforts are directed towards elimination of the disease. To achieve this a skilled and knowledgeable health care workforce utilising new tools and innovative strategies is essential.

Globally, nurses represent the largest workforce working in TB Programs. Within the Australia TB Program, there are approximately 200 nurses directly engaged within the Australian TB Program, as well as other nursing staff supporting TB patients within related domains including; paediatrics, respiratory health, refugee health, community and public health, in both inpatient and outpatient settings.

From earlier work undertaken by ARC it has been identified that nurses have an important role in Australia's TB elimination efforts. It was also shown that there is a critical need to maintain a skilled nursing workforce within Australia, in the context of a country with a low burden of TB, within a high burden region and an ageing workforce.

To address these workforce needs, ARC's Nurse Consultant Group continues to lead the work associated with developing a specialised post graduate course for Australian TB Nurses. This year, in collaboration with a national reference group the framework and course content for a post graduate course has been developed.

The course will provide the theoretical framework and practical skills required by nurses working within or in collaboration with, a national TB Program. The course will include the principles of TB nursing practice in order to improve knowledge and skills for the provision and coordination of evidenced based clinical and public health management of TB. Nursing care for people with TB spans the spectrum from social determinants of health to complex individualised case management. Participation in specialist education enables the development of knowledge and skills required to work effectively within the Australian TB Program and contributes to enhanced global TB control.

It is proposed that the course will be written by TB specialist nurses. Students will be supported by a team of clinical experts working within the speciality. The course will equip students to meet the Standards of Practice for the Specialist TB nurses.

The need for the course to utilise an approach to education for TB Nurses that is qualification based, internationally recognised and accessible underpins the work of the ARC Nurse Consultants Group and the National Reference Group.

# PROJECT FEEDBACK



## Training for Nurses and Community Workers

Work continues for ARC's Executive Director and Nurse Consultants Group in coordinating and delivering the monthly Pacific Island Nurses Network Meetings. This year a new technology platform (Zoom) has been implemented to connect the nurses across the Northern Pacific via video conferencing. The platform is provided and supported by the US Centres for Disease Control and Prevention (CDC) and has improved the connectivity of the network.

In the first quarter, an online survey was undertaken by the ARC Nurse Consultants to assess the Pacific Island Nurses Network meeting content, format and logistics and to establish the needs and priorities for education and technical support. The results of the survey were presented and discussed at a meeting with the Pacific Island TB Nurses Network held in May, 2017. The information on educational needs and priorities was utilised for planning the workshops for the nurses and community workers at the Pacific Island TB Controllers Association (PITCA) Conference held in Hawaii, 11th to the 15th September, 2017.

The PITCA conference was coordinated by the Mayo Clinic College of Medicine and Science and the CDC. ARC was invited to provide two Nurse Consultants to facilitate and deliver training. Amanda Christensen and Kerrie Shaw representing ARC attended the PITCA Conference to facilitate and deliver a four day TB Workshop for nurses and community workers from the northern Pacific region. Ann Raftery from the Francis J Curry International TB Center worked with Amanda and Kerrie to plan and deliver the



training. The workshop was attended by approximately 35 participants.

The PITCA nurses training curriculum covered a range of topics including: nursing care and management of people with TB infection and disease, strategies to improve treatment uptake and completion, contact investigation, addressing barrier in patients care and treatment, management of children with TB, active case finding, interpreting laboratory results and best practice in specimen collection.



*Risa Bukbuk - TB Program Manager from the Republic of the Marshall Islands presenting at the PITCA Nurses Workshop*

A feature of the PITCA meeting is the engagement of the participants in the program. This year, we were fortunate to have nurses from The Marshall Islands, Palau, Saipan and Hawaii co-present their work, providing local context and experiences adds value to the training program. This is a significant achievement for the nurses as four of the five nurses had not previously presented at a conference or workshop. Sharing local experiences and Pacific solutions is greatly valued by the meeting participants.

During the conference Amanda and Kerrie were invited to meet with the CDC Division of TB Program Consultant, Dawn Tuckey. Dawn oversees the education and training provided through the five CDC funded TB Regional Training and Medical Consultation Centers (RTMCCs). The RTMCCs provide training and technical assistance to increase human resource development in TB programs, develop TB educational materials and provide consultation to TB programs and providers. The CDC are interested in building their relationship and partnership with ARC as providers for training, capacity building and resource development. Amanda will continue to meet with the CDC to progress this opportunity.



# PROJECT FEEDBACK



## AUSTRALASIAN CLINICAL TUBERCULOSIS NETWORK

### Annual Report of the Australasian Clinical Tuberculosis Network (ACTnet) Report September 2017

The Australasian Clinical Tuberculosis Network is a newly founded network of clinicians and researchers who aim to conduct high quality multicentre clinical research in the region.

The development of ACTnet has been steadily progressing since early 2017. The network now has obtained formal support from its three principal Partner organisations:

1. Australian Respiratory Council (also the Host Organisation)
2. Thoracic Society of Australia and New Zealand (TSANZ)
3. Australasian Society of Infectious Diseases (ASID)

In addition, the network has established a formal associate partnership with TB Forum (a registered non-governmental organisation committed to advocacy relating to tuberculosis) and National Tuberculosis Advisory Committee (NTAC, the peak advisory body to government for tuberculosis in Australia).

The research agenda of ACTnet aims to be in line with the NTAC Strategic Plan for Control of Tuberculosis in Australia 2016 to 2020.

ACTnet currently has 50 members in Australia and New Zealand. It is supporting new collaborations between clinicians and researchers in different states, territories and countries, undertaking multicentre projects aiming to strengthen efforts for TB elimination. Members are invited to become investigators at their local clinic, and are provided research tools required to undertake projects locally to inform nationwide research questions.

ACTnet also supports the development of investigator-led operational research across the two countries. Members are invited to propose their own research questions, and are supported to develop their research ideas into research projects for implementation within the network.

The ACTnet steering committee supports these projects, and sets the strategic direction of the organisation. The Steering Committee has now met three times, including its first face-to-face meeting on 1st of September 2017.

In addition to supporting clinicians who are interested in partaking in research, ACTnet has also hopes to offer formal research training for those who wish to pursue higher research degrees. For example, Dr Vicky Chang, a NSW-based respiratory physician, is working within the newly established network to undertake a research project for her Masters of Research.

The development of ACTnet was inspired by the successes of TBnet in Europe ([www.tb-net.org](http://www.tb-net.org)) ACTnet's Network Support Officer, Elyse Guevara-Rattray will be attending the TBnet meeting on the 8th September in Milan and will bring back ideas and lessons from the development of the European network to Australia.

Currently ACTnet is facilitating 3 multi-centre studies in Australia:

1. Characterising the treatment and prevention of drug resistant Tuberculosis in NSW.

This research project will describe the epidemiology, clinical features, treatment and outcomes of multidrug-resistant tuberculosis (MDR-TB) cases diagnosed in 2000-2016 in New South Wales. The work will evaluate the clinical management of patients with MDR-TB against international standards to optimise MDR-TB case management, prevention and control. The second part will describe the management of contacts of MDR-TB patients diagnosed between 2000 and 2016 in NSW, and evaluate the screening and treatment of the contacts. This project is being undertaken by Dr Vicky Chang supervised by Associate Professor Greg Fox and Professor Warwick Britton from Sydney University.

2. Tuberculosis risk in Australia: An epidemiological assessment of tuberculosis risk factors and the prevalence of tuberculosis among high risk groups.

This research project aims to better characterise the epidemiological profile, risk factors and management of TB patients to improve targeting and delivery of interventions necessary to achieve the elimination of TB in Australia. It will achieve this by undertaking a nationwide survey of all Australian TB patients undergoing treatment on the same day in 2017, the work will include the review of the medical charts, TB case notes and jurisdictional TB databases at two points in time; once at baseline and a follow up data collection 12 months after baseline. The project will determine the frequency of recognised risk factors among a representative sample of TB patients in Australia, and describe the association between identified risk factors and TB treatment outcomes. This project is overseen by Dr Kerri Viney.

3. Evaluating the 'cascade of care' for off-shore migrant screening for latent tuberculosis infection (LTBI): a platform for evidence-based approaches to TB elimination in Australia.

This research project aims to evaluate the implementation and costs of the new Department of Immigration and Border Protection policy to screen all children between 2 and 10 years who migrate to Australia from TB endemic countries (> 40 per 100,000) for latent tuberculosis infection (LTBI). This retrospective cohort study will include all children eligible for the Australian Child LTBI screening in the first year of implementation. We will also collect data regarding the cost to health systems for undertaking post-arrival clinical assessments, evaluation and treatment for LTBI. This Project is overseen by Associate Professor Greg Fox (University of Sydney) and Associate Professor Justin Denholm (University of Melbourne).

Membership to ACTnet is free. Please see our website [www.actnet.org.au](http://www.actnet.org.au) for further information.



# WORLD TB DAY 2017

Each year we commemorate World TB Day on March 24 to raise public awareness about the devastating health, social and economic impact of tuberculosis (TB) and urge acceleration of efforts to end the global TB epidemic.

2017 World TB day commemorated the 135th anniversary of Dr. Robert Koch's announcement in 1882 of his discovery of the TB bacillus, the cause of TB. His ground breaking research opened the way toward diagnosing and curing this disease.

Despite significant progress over the last decades, TB continues to be the top infectious killer worldwide, claiming over 4,500 lives a day. Global efforts to combat TB have saved an estimated 53 million lives since 2000 and reduced the TB mortality rate by 37%. However, progress in many countries has stalled, global targets are off-track, and persistent gaps remain in TB care and prevention.

In 2017, the World Health Organisation (WHO) reported that 10.4 million people fell ill with TB and there were 1.8 million TB deaths in 2016, making it the top infectious killer worldwide. This disease is deeply rooted in populations where human rights and dignity are limited. While anyone can contract TB, the disease thrives among people living in poverty, communities and groups that are marginalized, and other vulnerable populations.

These include: migrants, refugees, ethnic minorities, miners and others working and living in risk-prone settings, the elderly, marginalised women and children in many settings. Factors such as malnutrition, poor housing and sanitation, compounded by other risk factors such as tobacco and alcohol use and diabetes, affect vulnerability to TB and access to care. Furthermore, this access is often hindered by catastrophic costs associated with illness, seeking and staying in care, and lack of social protection, resulting in a vicious cycle of poverty and ill-health. The emergence of multidrug-resistant TB (MDR-TB) poses a major health threat and adds great urgency to these concerns as it could put at risk the gains made in efforts to End TB!

At the first WHO Global Ministerial Conference on Ending TB held in Moscow in November, 2017 resulted in high-level commitments from Ministers and other leaders from 120 countries to The Moscow Declaration to End TB. This is a promise to increase multisectoral action as well as track progress, and build accountability. It will also inform the first UN General Assembly High-Level Meeting on TB in 2018, which will seek further commitments from heads of state.

World TB Day provides the opportunity to shine the spotlight on the disease and mobilise political and social commitment for accelerated progress to end TB.

The image displays six fact sheets arranged in a 3x2 grid. Each sheet features a 'WORLD TB DAY 2017' logo in the top right corner. The sheets are as follows:

- Sheet 1 (Top Left):** MYTH: TUBERCULOSIS HAS BEEN DEFEATED. FACT: OVER 10 MILLION PEOPLE DEVELOP TB EACH YEAR. TB IS THE WORLD'S LEADING INFECTIOUS KILLER.
- Sheet 2 (Top Right):** MYTH: TUBERCULOSIS DOES NOT EXIST IN MY COUNTRY. FACT: TB IS AN AIRBORNE DISEASE THAT EXISTS IN EVERY COUNTRY. EVERYONE IS VULNERABLE.
- Sheet 3 (Middle Left):** MYTH: THERE IS ENOUGH POLITICAL WILL AND RESOURCES TO END TUBERCULOSIS. FACT: LESS THAN HALF OF THE RESOURCES NEEDED ARE AVAILABLE TO END TB.
- Sheet 4 (Middle Right):** MYTH: TUBERCULOSIS CANNOT BE PREVENTED. FACT: THERE IS TREATMENT TO PREVENT YOU FROM BECOMING SICK IF YOU HAVE BEEN EXPOSED TO TB.
- Sheet 5 (Bottom Left):** MYTH: TUBERCULOSIS CANNOT BE CURED. FACT: TB IS CURABLE, WITH A TREATMENT COSTING AS LITTLE AS \$30.
- Sheet 6 (Bottom Right):** MYTH: PEOPLE AFFECTED BY TUBERCULOSIS HAVE ACCESS TO THE DIAGNOSIS AND TREATMENT THAT THEY NEED. FACT: MORE THAN 4 MILLION WHO DEVELOP TB EACH YEAR LACK ACCESS TO QUALITY CARE.

Each sheet includes a QR code and the text 'FIND OUT how you can join the fight to End TB stoptb.org'. The bottom right sheet also features the 'UNITE TO END TB' logo and 'Stop TB Partnership' text.

# RESOURCES OVERVIEW

## Community Awareness

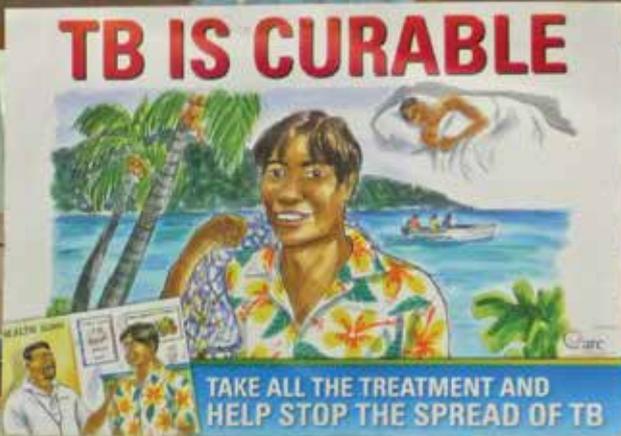
Raising awareness about TB within the community is important. The key messages for TB include how TB is transmitted, the signs and symptoms of TB, the need to seek medical assessment if symptoms develop, how to treat TB and most importantly that TB can be cured. To promote these messages ARC has developed a range of resources.



## Nurse Education and Training Resources

The aim of the Tuberculosis Training Modules is to provide a dynamic resource which can be added to, updated and expanded as necessary to meet the educational needs of nurses working with TB Programs across the region. The ARC Tuberculosis Training Models are currently utilised for nursing educators within the Pacific.

# HISTORY OF FUNDING FOR RESEARCH AND PROJECT ACTIVITIES 1999–2017



# SCHOLARSHIPS, FELLOWSHIPS

## A HISTORY

### ARC Ann Woolcock Fellowship Awards (2005 - 2014)

Date	Recipient	Subject	Award
2010-2014	Jodie Simpson <i>Newcastle University, NSW</i>	Characterisation and treatment of innate immune dysfunction in older people with obstructive airway disease	\$258,763
2005-2009	Ingrid Laing <i>Teletthon Institute for Child Research, Perth, WA</i>	Genetic Influences on causal pathways of ALRIs in highly susceptible infants	\$285,000

### ARC Ann Woolcock Biomedical and Postgraduate Research Scholarship Awards (2002 - 2004)

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

### ARC Harry Windsor Biomedical and Postgraduate Research Scholarship Awards (1999 - 2001)

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

## RESEARCH GRANTS

## A HISTORY

## ARC Harry Windsor Medical Research Grants (1999 - Present)

Date	Recipient	Subject	Award
2017	Professor Michael Berk <i>Deakin University, Victoria</i>	Can we reduce tobacco smoking using N-acetylcysteine as a cessation treatment	\$50,000
2017	Dr Greg Fox <i>University of Sydney</i>	New digital strategies to enhance tuberculosis treatment adherence in Vietnam	\$50,000
2016	Dr Graeme Zosky <i>University of Tasmania</i>	Iron laden particulate matter enhances bacterial growth in the lung	\$50,000
2016	Laureate Professor Foster <i>University of Newcastle, NSW</i>	Understanding the role of the newly discovered 2D4 T helper(TH) - 22 cell subset in models of respiratory infection and inflammation	\$50,000
2016	Professor Ian Yang <i>University of Queensland</i>	Using the lung microbiome to predict responses to continuous antibiotics in COPD	\$50,000
2015	Brian Oliver, <i>The Woolcock Institute and The University Of Technology, NSW</i>	Understanding the aetiology of small airway fibrosis in COPD	\$50,000
2015	Harin Karunajeewa <i>The Walter and Eliza Institute, VIC</i>	Getting the dose right in Tuberculosis: Pharmacokinetics to improve outcomes in Tuberculosis	\$50,000
2014	Daniel Chambers <i>The Prince Charles Hospital, Qld Lung Transplant Service, Qld</i>	Disease tolerance and transplant tolerance – two sides of the same coin?	\$50,000
2013	Brian Oliver <i>University of Sydney, NSW</i>	Why do fibroblasts from people with COPD produce extracellular matrix proteins in response to cigarette smoke?	\$50,000
2012	Bernadette Saunders <i>Centenary Institute, Sydney, NSW</i>	Microparticles and microRNA as biomarkers of TB disease	\$50,000
2011	Ross Coppel, Paul Crellin et al <i>Monash University, Melbourne</i>	Identification of inhibitors of PimA, a new target for tuberculosis therapy	\$50,000
2010	Peter Bye <i>Royal Prince Alfred Hospital, Sydney, NSW</i>	Novel interventions for the diverse population of Australia with bronchiectasis	\$50,000
2009	Sandra Hodge <i>Hanson Institute, Adelaide, SA</i>	Investigation of macrophage function as a therapeutic target in chronic obstructive pulmonary disease/emphysema (COPD)	\$50,000
2008	Jenny Alison <i>University of Sydney, NSW</i>	Optimising mucus clearance with exercise in cystic fibrosis	\$50,000
2008	Stephen Stick, Anthony Kicic & Siobhan Brennan <i>University of WA, Perth, WA</i>	A randomised controlled trial of L-arginine or vitamin D to improve outcomes in pulmonary tuberculosis	\$50,000
2007	Siobhain Brennan and Anthony J Kettle <i>Telethon Institute for Child Health Research, Perth, WA</i>	Investigating markers of oxidative stress in young children with cystic fibrosis: a driving mechanism of pulmonary investigation	\$50,000
2007	Stephen Bozinovski and Ross Vlahos <i>University of Melbourne, Melbourne, VIC</i>	Cigarette smoke chemically modifies and inactivates lung innate immunity mediated by the bacterial receptor, TLR4	\$50,000
2006	Paul Kelly, Graeme Maguire, Peter Morris, Ivan Bastian & Nicholas Anstey <i>Menzies School of Health Research, Darwin, NT</i>	Nutritional intervention to improve tuberculosis treatment outcome in Timika, Indonesia: the NUTTS study	\$50,000
2006	David Jans <i>Monash University, Melbourne, VIC</i>	Role of phosphorylation in regulating nuclear trafficking during infection of respiratory syncytial virus matrix protein	\$50,000
2006	Robert Capon <i>University of Queensland</i>	A new non-toxic approach to controlling bacterial infection	\$49,000

Date	Recipient	Subject	Award
2005	Paul Reynolds, Gregory Hodge, Sandra Hodge, Mark Holmes <i>Royal Adelaide Hospital, Adelaide, SA</i>	Infection versus rejection in lung transplant related bronchiolitis obliterans syndrome: can intracellular cytokines help?	\$50,000
2005	Kwung Fong & Annalese Semmler <i>Prince Charles Hospital</i>	Novel methylated genes in lung cancer	\$52,250
2004	Warwick Britton, Guy Marks and Bernadette Saunders <i>Centenary Institute of Cancer Medicine &amp; Cell Biology, Sydney, NSW</i>	Evaluation of genetic and environment risk factors for progression to active tuberculosis in the Liverpool cohort	\$44,701
2004	Paul Kelly, Nick Anstey, Graeme Maguire et al <i>Menzies School of Health Research, Darwin, NT</i>	Pulmonary Function in Tuberculosis patients in Timika District, Papua Province, Indonesia	\$43,267
2002 -2003	James Triccas & Warwick Britton <i>Centenary Institute of Cancer Medicine &amp; Cell Biology, Sydney, NSW</i>	New strategies to vaccinate against Mycobacterium tuberculosis	\$112,588
2002	Amanda Leach, Heidi Smith-Vaughan Marius Puruntamerri, Ross Baillie & Peter Morris <i>Menzies School of Health Research</i>	Improved hygiene measures for reduced infection in Australian Aboriginal Children: a randomised controlled trial	\$48,424
2002	Evangelia Daviskas, Sandra Anderson & Iven Young <i>Royal Prince Alfred Hospital</i>	Effect of mannitol on the clearance of mucus in patients with COPD	\$38,593
2001	Amanda Baker and Vaughan Carr <i>University of Newcastle</i>	Randomised controlled trial of a smoking cessation intervention among people with a mental illness	\$63,370
2001	Terence Amis and John Wheatley <i>Westmead Hospital</i>	The role of snoring and obstructive sleep apnoea in the pathogenesis of hypertension	\$45,665
2001	James Wiley and Tania Sorrell <i>University of Sydney, NSW</i>	The monocyte-macrophage P2x7 receptor and susceptibility to tuberculosis	\$45,000
2000-2001	John Wiggers, Afaf Girgis, Robyn Considine, Jenny Bowman <i>University of Newcastle</i>	Preventing infant exposure to tobacco smoke: evaluation of an early childhood intervention	\$53,006
2000	Peter Bye, Iven Young, Jenny Alison and Marney Isedale <i>Royal Prince Alfred Hospital</i>	Evaluation of lung volume reduction surgery in patients with chronic airflow limitation	\$38,000
2000	Warwick Britton and James Triccas <i>Centenary Institute of Cancer Medicine &amp; Cell Biology</i>	Interlukin-18 as an adjuvant for DNA Immunisation against Tuberculosis	\$26,500
2000	Peter Gibson <i>John Hunter Hospital</i>	Quality of Life in Chronic Cough	\$25,500
1999	Guy Marks <i>Institute of Respiratory Medicine</i>	Does BCG vaccination in infancy prevent allergy	\$5,000
1999	Graeme Maguire, Norma Bengier and Bart Currie <i>Menzies School of Health Research</i>	Chronic Lung Disease in Aboriginal Australians: factors in aetiology and treatment	\$69,136
1999	Bernadette Saunders and Helen Briscoe <i>Centenary Institute of Cancer Medicine &amp; Cell Biology</i>	Apoptosis in the control of Mycobacterial infection	\$38,000
1999	Peter Bye, Stefan Eberl and Jenny Alison <i>University of Sydney, NSW</i>	Pharmacological and Physical Therapies to enhance mucociliary clearance in chronic lung disease and mucus hypersecretion	\$39,000
1999	Evangelica Daviskas <i>Royal Prince Alfred Hospital</i>	Effects of beta2-adreceptor agonists on mucociliary clearance in persons with asthma	\$5,000
1999	Karen Waters <i>University of Sydney, NSW</i>	Potential neurotoxicity of repetitive hypercapnic hypoxia during early treatment	\$10,000
1999	Ronald Grunstein <i>Royal Prince Alfred Hospital</i>	Sleep Apnoea and Cytokines	\$22,000

## A HISTORY

## ARC Project Awards (1999 - Present)

Date	Recipient/Project	Award
2017	Marshall Islands Funding A1c kits for the screening activity on Ebeye Island	\$5,264
2017	Papua New Guinea Economic evaluation of patient costs associated with tuberculosis and care in Papua New Guinea.	\$25,000
2015-2017	Australia Establishing a framework for nursing education in Australia	\$30,016
2013-2016	Solomon Islands Improving TB control in remote area of Solomon Islands	\$64,744
2012	Bangladesh Bangladesh MDR-TB Project, an investigation into risk factors for MDR-TB in communities in Bangladesh	\$10,000
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
2011-2017	Vietnam MECOR Course - Level 1, Level 2 and Level 3 workshops	\$80,000
2010	Secretariat of Pacific Community Evaluation of the effectiveness of the Community Component of the Kiribati Quality TB Epidemic Control Project	\$4,800
2010	Menzies School of Health Research Development of educational resources, 3 Talking posters and 3 flipcharts on pneumonia, bronchiolitis and bronchiectasis	\$35,000
2009	Federated States of Micronesia Capacity Building for TB nurses and related health workers in the Federated States of Micronesia (FSM) A partnership with Eli Lilly	\$31,424
2009-2012	Cambodian Anti-Tuberculosis Association Cambodia: TB control in elderly and vulnerable groups and in factories	\$110,637
2008-2009	Secretariat of Pacific Community TB Drama Video Production in Kiribati	\$35,000
2008-2009	Federated States of Micronesia (Chuuk) Support of a tutor and education materials for children for MDRTB	\$5,537
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
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
2007-2008	Secretariat of Pacific Community Enhancing Community involvement in TB control through Theatre in Kiribati	\$40,926
2006-2017	PITCA - Pacific Island TB Controllers Association Training of nurses and related workers in the Northern Pacific	\$140,360
2006	TB Nurse Training in Kiribati	\$41,699

Date	Recipient/Project	Award
2006	Building of TB Laboratory at Tunguru Hospital Kiribati	\$30,000
2005	Maningrida Lung Health Community Awareness Raising Pilot Project Funding (James N Kirby Foundation \$12,000)	\$20,000
2002 - 2005	TB laboratory Training Tonga, Samoa, Kiribati and the Cook Islands	\$189,231
2001	Distribution of books: Clinical Tuberculosis and Tobacco or Health: A Global Threat through Teaching Aids at Low Cost.	\$2,000
2000	Sponsored Professor Don Enarson, Scientific Director of IUATLD, to be guest speaker at the NSW Health Department TB Nurses Conference	\$3,000
2000	Participation in the WHO, "First Stop TB Meeting in the Pacific Islands" in Noumea	\$4,000
1999	Provided funding for the translation of "Tobacco or health: A Global Threat" through Teaching Aids at Low Cost	\$3,000
1999	Visit to Port Moresby and Lae to evaluate the DOTS TB Programme	\$4,000
1999	Funded purchase of course textbooks for Epidemiology Workshop in Port Moresby	\$1,000





2017 FINANCIALS AND  
ACFID SUMMARY FINANCIALS

# DIRECTORS' REPORT

Your Directors present their report on the Company for the financial year ended 31 December 2017.

**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:

Name and Qualifications Experience and Special Responsibilities

### **Amanda Julie Christensen**

#### **Dip Nursing**

Appointed to the Board on 22 January 2001. Executive Director  
 Interests in contracts: Nil

### **Associate Professor Gregory Fox**

#### **BSc(Med) MBB SHons) FRACP PhD MIPH**

Appointed to the Board 22 May 2017  
 Interest in contracts: Nil

### **Clinical Associate Professor Peter Gianoutsos**

#### **MB CHB(Univ of Otago), FRACP FCCP**

Appointed to the Board on 15 May 2006. Vice President  
 Interest in contracts: Nil

### **Robyn Johnson**

#### **GAICD**

Appointed to the Board on 5 November 2012  
 Interest in contracts: Nil

### **David Macintosh AM**

#### **BBS (UTS), FCA**

Appointed to the Board 19 June 1997. Vice President  
 Interest in contracts: Nil

### **Ian W Ramsay**

#### **LLB (Syd.)**

Board member 2008 - February 2012  
 Reappointed to the Board 5 November 2012  
 Interest in contracts: Nil

### **Emeritus Professor John Paul Seale AM**

#### **MB BS PhD FRACP**

Appointed to the Board 19 June 1997. President  
 Interest in contracts: Nil

### **Kerrie Shaw**

#### **Registered Nurse**

Appointed to the Board 4 February 2013  
 Interest in contracts: Nil

### **Christopher Turner**

#### **B.Comm Dip FS Assoc Fin FPA**

Appointed to the Board 22nd May 2017. Finance Director  
 Interest in contracts: Nil

### **Professor Iven Young AM**

#### **BSc(Med), MB BS,PhD,FRACP**

Appointed to the Board 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:

<b>Name of Director</b>	<b>Number Held while in Office</b>	<b>Number attended</b>
Amanda Julie Christensen	4	4
Peter Gianoutsos	4	4
Gregory Fox	2	2
Robyn Johnson	4	3
David Hugh Macintosh	4	4
Ian Ramsay	4	3
John Paul Seale	4	3
Kerrie Shaw	4	3
Christopher Turner	2	2
Iven Hunter Young	4	3

### 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 approaches 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 Constitution states that each member is required to contribute a maximum of \$1.00 towards meeting any outstanding obligations of the Company. At 31 December 2017 the collective liability of members was \$42 (2016:\$42)

### AUDITORS' INDEPENDENCE DECLARATION UNDER SECTION 307C OF THE CORPORATION 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:



**Emeritus Professor J Paul Seale AM**  
Director  
Sydney, 5th April 2018



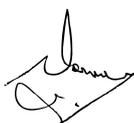
**Christopher Turner**  
Director  
Sydney, 5th April 2018

### 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 2017 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.

### CONROY AUDIT AND ADVISORY



**D R Conroy FCA**  
Principal  
Auditor No: 2251  
Sydney, April 2018

## STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the Year Ended 31 December 2017

	Note	2017 \$	2016 \$
Revenue	2	376,178	486,279
Depreciation and amortisation expense	3	(4,856)	(11,997)
Research grants, fellowships and scholarships		(108,152)	(165,574)
Project funding		(53,233)	(36,678)
<b>Investment expense</b>		(12,456)	(13,276)
<b>Annual leave replacement staff</b>		(10,915)	-
Employee benefits expense		(257,904)	(218,807)
<b>Other expenses</b>		(310,133)	(233,459)
<b>Loss before income tax</b>		(381,471)	(193,512)
Income tax expense	1	-	-
<b>Loss for the year</b>		(381,471)	(193,512)
<b>Other comprehensive income after tax:</b>			
Net gain on revaluation of investment property		1,061,000	-
Net gain/(Loss) on revaluation of financial assets		(79,109)	(38,712)
<b>Other comprehensive income for the year net of tax</b>		981,891	(38,712)
<b>Total comprehensive income for the year</b>		600,420	(232,224)

## STATEMENT OF FINANCIAL POSITION

As At 31 December 2017

	Note	2017 \$	2016 \$
<b>ASSETS</b>			
Current Assets			
Cash and cash equivalents	5	382,645	243,954
Trade and other receivables	6	7,244	55,114
Other current assets	7	4,301	8,199
<b>Total Current Assets</b>		<b>394,190</b>	<b>307,267</b>
Non-Current Assets			
Financial assets	8	1,756,021	2,271,636
Property, plant and equipment	9	49,385	53,551
Investment property	10	3,000,000	1,939,000
<b>Total Non-Current Assets</b>		<b>4,805,406</b>	<b>4,264,187</b>
<b>TOTAL ASSETS</b>		<b>5,199,596</b>	<b>4,571,454</b>
<b>LIABILITIES</b>			
Current Liabilities			
Trade and other payables	11	123,903	71,664
Employee Entitlements	12	41,855	48,249
<b>Total Current Liabilities</b>		<b>165,758</b>	<b>119,913</b>
<b>TOTAL LIABILITIES</b>		<b>165,758</b>	<b>119,913</b>
<b>NET ASSETS</b>		<b>5,033,838</b>	<b>4,451,541</b>
<b>EQUITY</b>			
Reserves	13	4,467,553	3,591,918
Retained earnings		566,285	859,623
<b>TOTAL EQUITY</b>		<b>5,033,838</b>	<b>4,451,541</b>

## STATEMENT OF CHANGES IN EQUITY

For The Year Ended 31 December 2017

	Capital Profits Reserves \$	Asset Revaluation Reserves \$	Retained Earnings/ (Accumulated Losses) \$	Total \$
<b>Balance at 1 January 2016</b>	2,411,980	791,649	1,480,136	4,683,765
Loss attributable to members	-	-	(193,512)	(193,512)
Total comprehensive income for the year	-	(38,712)	-	(38,712)
Transfers on sale of assets	-	427,001	(427,001)	-
<b>Balance at 31 December 2016</b>	<b>2,411,980</b>	<b>1,179,938</b>	<b>859,623</b>	<b>4,451,541</b>
Loss attributable to members	-	-	(381,471)	(381,471)
Total comprehensive income for the year	-	963,768	-	963,768
Transfers on sale of assets	-	(88,133)	88,133	-
<b>Balance at 31 December 2017</b>	<b>2,411,980</b>	<b>2,055,573</b>	<b>566,285</b>	<b>5,033,838</b>

## STATEMENT OF CASH FLOWS

For The Year Ended 31 December 2017

	Note	2017 \$	2016 \$
<b>Cash Flows From Operating Activities</b>			
Receipts from customers		239,078	305,251
Payments to suppliers and employees		(638,218)	(687,154)
Interest received		1,305	7,587
Distributions received		151,316	181,224
<b>Net cash provided by (used in) operating activities</b>	17	<b>(246,519)</b>	<b>(193,092)</b>
<b>Cash Flows From Investing Activities</b>			
Proceeds from sale of available-for-sale investments		639,391	-
Payment for property, plant and equipment		(690)	(21,048)
Payment for available-for-sale investments		(253,491)	-
<b>Net cash provided by (used in) investing activities</b>		<b>385,210</b>	<b>(21,048)</b>
		138,691	
Net Increase/(Decrease) in Cash Held			(214,140)
Cash at beginning of financial year		243,954	458,094
<b>Cash at end of financial year</b>	17	<b>382,645</b>	<b>243,954</b>

# NOTES TO AND FORMING PART OF THE ACCOUNTS

For The Year Ended 31 December 2017

## Note 1 - Statement of Significant Accounting Policies

### Basis of Preparation

Australian Respiratory Council applies Australian Accounting Standards – Reduced Disclosure Requirements as set out in AASB 1053: Application of Tiers of Australian Accounting Standards.

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 (AASB) and the Australian Charities and Not-for-profits Commission Act 2012. The company is a not-for-profit entity for financial reporting purposes under Australian Accounting Standards.

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 stated otherwise.

The financial statements, except for the cash flow information, have been prepared on an accrual basis and are based on historical costs, modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and financial liabilities. The amounts presented in the financial statements have been rounded to the nearest dollar.

### 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.

Dividend revenue is recognised when the right to receive a dividend has been established. 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.

Donations and bequests are recognised as revenue 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 and are therefore carried at cost less accumulated depreciation and any accumulated impairment losses. In the event the carrying amount of plant and equipment is greater than its estimated recoverable amount, the carrying amount is written down immediately to its estimated recoverable amount and impairment losses are recognised either in profit or loss or as a revaluation decrease if the impairment losses relate to a revalued asset. A formal assessment of recoverable amount is made when impairment indicators are present.

Plant and equipment that have been contributed at no cost, or for nominal cost, are valued and recognised at the fair value of the asset at the date it is acquired. "

### Depreciation

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 or losses are included in the statement of comprehensive income. When revalued assets are sold, amounts included in the revaluation surplus 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 asset's carrying value. Any excess of the asset's 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

# NOTES TO THE FINANCIAL STATEMENTS

For The Year Ended 31 December 2017

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 or 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 2017

	2017 \$	2016 \$
<b>2. Revenue</b>		
<b>Operating Activities</b>		
Appeals	81,785	99,070
APR 2015 Conference	-	245
Net profit/(loss) on sale of investments	(32,483)	10,220
Rental revenue for property investment	119,572	54,905
Interest received	1,305	7,587
Fund distributions from investments	111,341	140,428
Legacies & donations	1,000	94,854
Member subscriptions	636	909
Miscellaneous income	7,514	2,328
Refund of franking credits	39,975	40,796
Sundry income	45,533	34,937
<b>Total Revenue</b>	<b>376,178</b>	<b>486,279</b>
<b>3. Profit From Ordinary Activities</b>		
<b>Expenses</b>		
<b>Depreciation of Non-Current Assets:</b>		
Plant and equipment	4,856	11,997
<b>4. Auditor's Remuneration</b>		
Remuneration of the Auditor of the Company for:		
- Auditing the Financial Report	13,700	13,300
<b>5. Cash and Cash Equivalents</b>		
Cash on hand		-
Cash at bank	382,645	243,954
	<b>382,645</b>	<b>243,954</b>
<b>6. Trade and Other Receivables</b>		
Trade debtors	2,144	9,160
Other debtors	5,100	45,954
	<b>7,244</b>	<b>55,114</b>
<b>7. Other Current Assets</b>		
Prepayments	4,301	8,199

## NOTES TO THE FINANCIAL STATEMENTS

For The Year Ended 31 December 2017

	2017 \$	2016 \$
<b>8. Financial Assets</b>		
Non Current		
Listed shares - at fair value	1,252,127	1,604,002
Managed funds - at fair value	503,894	667,634
<b>Total financial assets</b>	<b>1,756,021</b>	<b>2,271,636</b>
<b>9. Property, Plant &amp; Equipment</b>		
Non Current		
Plant & equipment at cost	117,380	116,691
Less: accumulated depreciation and impairment	(67,995)	(63,140)
<b>Total property, plant and equipment</b>	<b>49,385</b>	<b>53,551</b>

### 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	53,551	53,551
Additions	690	690
Disposals	-	-
Depreciation expense	(4,856)	(4,856)
Full depreciation for assets under \$200	-	-
Carrying amount at the end of year	49,385	49,385

### 10. Investment Property

Non Current		
Investment property - at fair value directors' valuation	3,000,000	1,939,000
<b>Total</b>	<b>3,000,000</b>	<b>1,939,000</b>

### Investment Property Revaluations

At 31 December 2017, the property has been recorded at Directors valuation which is based on an independent registered valuers report from WK Wotton & Partners Mr. Wayne Wotton and Mr. Brett Allan Davis, Certified Practice Valuer API Member No: 68007 and 68956 respectively dated 22 November 2017.

## NOTES TO THE FINANCIAL STATEMENTS

For The Year Ended 31 December 2017

	2017 \$	2016 \$
<b>11. Trade and Other Payables</b>		
<b>Unsecured liabilities</b>		
Trade payables	46,856	10,271
Sundry payables and accrued expenses	77,047	61,393
<b>Total</b>	<b>123,903</b>	<b>71,664</b>
<b>12. Employee Entitlements</b>		
Provision for annual leave	29,525	32,003
Provision for long service leave	12,330	16,246
<b>Total</b>	<b>41,855</b>	<b>48,249</b>
<b>Number of employees</b>		
Number of employees at year end	3	3
<b>13. Reserves</b>		
Capital profits reserve	2,411,980	2,411,980
Asset revaluation reserve	2,055,573	1,179,938
<b>Total</b>	<b>4,467,553</b>	<b>3,591,918</b>
Nature and purpose of reserves		
<b>(a) Capital Profits</b>		
The capital profits reserve is used to accumulate realised capital profits		
Balance at end of year	2,411,980	2,411,980
<b>(b) Asset revaluation</b>		
The asset revaluation reserve is used to record increments and decrements in the value of non current assets		
Balance at beginning of year	1,179,938	791,649
Revaluation increment/(decrement)	963,768	(38,712)
Transfers	(88,133)	427,001
<b>Balance at end of year</b>	<b>2,055,573</b>	<b>1,179,938</b>
<b>14. Members' Guarantee</b>		
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 2017 the number of members was 42 (2016:42).		

## NOTES TO THE FINANCIAL STATEMENTS

For The Year Ended 31 December 2017

### 15. Financial Risk Management

#### (a) Interest Rate Risk

The Company's financial instruments consist mainly of deposits with banks, local money market instruments, short-term investments, accounts receivable and payable, and investment available for sale.

The carrying amounts for each category of financial instruments, measured in accordance with AASB 139 as detailed in the accounting policies to these financial statements, are as follows:

	2017 \$	2016 \$
<b>Financial assets</b>		
Cash and cash equivalents	382,645	243,954
Trade and other receivables	7,244	55,114
Other current assets	4,301	8,199
Financial assets at fair value through profit or loss	1,756,021	2,271,636
<b>Total financial assets</b>	<b>2,150,211</b>	<b>2,578,903</b>
<b>Financial liabilities at amortised cost:</b>		
– trade and other payables	123,903	71,664
<b>Total financial liabilities</b>	<b>123,903</b>	<b>71,664</b>

#### Net Fair Values

(i) For listed available-for-sale financial assets and financial assets at fair value through profit or loss the fair values have been based on closing quoted bid prices at the end of the reporting period.

In determining the fair values of the unlisted available-for-sale financial assets, the Directors have used inputs that are observable either directly (as prices) or indirectly (derived from prices).

(ii) Fair values of held-to-maturity investments are based on quoted market prices at the ending of the reporting period.

### 16. Key Management Personnel

Any person(s) having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any Director (whether executive or otherwise) of that entity is considered key management personnel.

The totals of remuneration paid to key management personnel (KMP) of the Company during the year are as follows:

	2017 \$	2016 \$
Key management personnel compensation	144,676	131,119

# NOTES TO THE FINANCIAL STATEMENTS

For The Year Ended 31 December 2017

	2017 \$	2016 \$
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## 17. 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	<b>382,645</b>	<b>243,954</b>
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### **(b) Reconciliation of Cash Flow from Operations with Profit after Income Tax**

Net income/loss for the period	(381,471)	(193,512)
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### **Cash flows excluded from profit attributable to operating activities**

Non cash flows in profit

Depreciation	4,856	11,997
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Net (gain)/loss on disposal of investments	32,483	-
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### **Changes in assets and liabilities, net of the effects of purchase and disposal of subsidiaries**

(Increase)/decrease in trade and term receivables	47,870	(12,699)
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(Increase)/decrease in prepayments	3,898	(470)
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Increase/(decrease) in trade payables and accruals	52,239	(4,911)
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Increase/(decrease) in provision for employee benefits	(6,394)	6,503
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<b>Net cash inflow/(outflow) from operating activities</b>	<b>(246,519)</b>	<b>(193,092)</b>
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## 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	82,793	193,924
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Less: Total direct costs of fundraising	20,657	25,911
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<b>Net surplus from fundraising activities</b>	<b>62,136</b>	<b>168,013</b>
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### **(b) Statement showing how funds received were applied to charitable purposes**

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

### **(c) Fundraising appeals conducted during the financial period**

Appeals only

### **(d) Comparisons**

Total cost of fundraising/gross income from fundraising	25%	13%
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Net surplus from fundraising/gross income from fundraising	75%	87%
--	-----	-----

Total cost of services/total expenditure	100%	100%
--	------	------

Total cost of services/total income received	25%	13%
--	-----	-----

# SUMMARY FINANCIAL REPORT - INCOME STATEMENT

For the year ended 31 December 2017

	2017 \$	2016 \$
<b>REVENUE</b>		
Donation and Gifts - Monetary & Non monetary	81,786	99,070
Bequests and Legacies	1,000	94,854
Grants		
AusAid	-	-
Other Australian	43,928	20,000
Other overseas	733	3,855
Investment Income	239,710	253,937
Other Income	9,021	14,563
<b>TOTAL REVENUE</b>	<b>376,178</b>	<b>486,279</b>
<b>EXPENDITURE</b>		
<b>International Aid and Development</b>		
International programs		
Funds to international projects	58,610	21,683
Program Support Costs	16,771	7,540
Community education	12,190	6,582
Fundraising Costs		
Public	20,657	25,911
Government, multilateral and private	-	-
Accountability and Administration	316,881	355,982
Non - Monetary Expenditure	-	-
<b>Total International Aid and Development Programs Expenditure</b>	<b>425,109</b>	<b>417,698</b>
Domestic projects	171,328	198,273
Investment Expenditure	161,212	63,820
<b>TOTAL EXPENDITURE</b>	<b>757,649</b>	<b>679,791</b>
<b>EXCESS/(SHORTFALL) OF REVENUE OVER EXPENDITURE</b>	<b>(381,471)</b>	<b>(193,512)</b>
Net gain/(loss) on revaluation of financial assets and investment property	981,891	(38,712)
<b>EXCESS/(SHORTFALL) OF REVENUE OVER EXPENDITURE</b>	<b>600,420</b>	<b>(232,224)</b>

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 2017

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 \$
Australian Research Grants & Fellowships	(270,959)	82,786	(100,000)	(288,173)
Australian Projects	109,298	52,969	(71,328)	90,939
International Projects	(225,808)	733	(75,381)	(300,456)
Community Education	(35,077)	-	(12,190)	(47,267)
Other Purposes	666,500	894,602	(633,500)	927,602
<b>Total</b>	<b>243,954</b>	<b>1,031,090</b>	<b>(892,399)</b>	<b>382,645</b>

**NOTE:** In the year ended 31 December 2017, the Board allocated an amount for international projects. The shortfall in cash reserves is compensated by cash raised from investment activities.

## STATEMENT OF CHANGES IN EQUITY

For The Year Ended 31 December 2017

	Capital profits Reserves \$	Asset Revaluation Reserves \$	Retained Earnings/ (accumulated losses) \$	Total \$
Balance at 1 January 2016	2,411,980	791,649	1,480,136	4,683,765
Excess of revenue over expense	-	-	(193,512)	(193,512)
Total comprehensive income for the year	-	(38,712)	-	(38,712)
Transfers on sale of assets	-	427,001	(427,001)	-
Balance at 31 December 2016	2,411,980	1,179,938	859,623	4,451,541
Excess of revenue over expense	-	-	(381,471)	(381,471)
Total comprehensive income for the year	-	963,768	-	963,768
Transfers on sale of assets	-	(88,133)	88,133	-
<b>Balance at 31 December 2017</b>	<b>2,411,980</b>	<b>2,055,573</b>	<b>566,285</b>	<b>5,033,838</b>

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

# SUMMARY FINANCIAL REPORT - BALANCE SHEET

As At 31 December 2017

	Note	2017 \$	2016 \$
<b>ASSETS</b>			
Current Assets			
Cash and cash equivalents	5	382,645	243,954
Trade and other receivables	6	7,244	55,114
Other current assets	7	4,301	8,199
<b>Total Current Assets</b>		<b>394,190</b>	<b>307,267</b>
Non-Current Assets			
Financial assets	8	1,756,021	2,271,636
Property, plant and equipment	9	49,385	53,551
Investment property	10	3,000,000	1,939,000
<b>Total Non-Current Assets</b>		<b>4,805,406</b>	<b>4,264,187</b>
<b>TOTAL ASSETS</b>		<b>5,199,596</b>	<b>4,571,454</b>
<b>LIABILITIES</b>			
Current Liabilities			
Trade and other payables	11	119,427	57,792
Borrowings	11	4,476	1,926
Provisions	12	41,855	48,249
Other financial liabilities	11	-	11,946
<b>Total Current Liabilities</b>		<b>165,758</b>	<b>119,913</b>
<b>TOTAL LIABILITIES</b>		<b>165,758</b>	<b>119,913</b>
<b>NET ASSETS</b>		<b>5,033,838</b>	<b>4,451,541</b>
<b>EQUITY</b>			
Reserves	13	4,467,553	3,591,918
Retained earnings		566,285	859,623
<b>TOTAL EQUITY</b>		<b>5,033,838</b>	<b>4,451,541</b>

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, Intangibles, 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.

## DIRECTORS' DECLARATION

The directors of the registered entity declare that, in the directors' opinion:

1. The financial statements and notes, as set out on pages 35 to 51, are in accordance with the Australian Charities and Not-for-profits Commission Act 2012 and:
  - i. comply with Australian Accounting Standards – Reduced Disclosure Requirements; and
  - ii. give a true and fair view of the financial position as at 31 December 2017 and performance for the year ended on that date.
2. There are reasonable grounds to believe that the registered entity will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with subs 60.15(2) of the Australian Charities and Not-for-profits Commission Regulation 2013.



**Emeritus Professor J Paul Seale AM**

Director

Sydney, 5th April 2018



**Christopher Turner**

Director

Sydney, 5th April 2018

# 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 Audit of the Financial

#### Report Opinion.

We have audited the financial report of the Australian Respiratory Council (the registered entity), which comprises the statement of financial position as at 31 December 2017, the statement of profit or loss, statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the Directors' declaration.

In our opinion, the accompanying financial report of the Australian Respiratory Council has been prepared in accordance with Div 60 of the Australian Charities and Not-for-profits Commission Act 2012, including:

- (i) giving a true and fair view of the registered entity's financial position as at 31 December 2017 and of its financial performance for the year then ended; and
- (ii) complying with Australian Accounting Standards – Reduced Disclosure Requirements and the Australian Charities and Not-for-profits Commission Regulation 2013, and the Corporations Regulations 2001;

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.

#### Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the registered entity in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110: Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

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

### Information Other than the Financial Report and Auditor's Report Thereon

The Directors are responsible for the other information. The other information comprises the information included in the registered entity's annual report for the year ended 31 December 2017, but does not include the financial report and our auditor's report thereon. Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon. In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of the Directors for the Financial Report

The Directors of the registered entity are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards – Reduced Disclosure Requirements and the Australian Charities and Not-for-profits Commission Act 2012 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the registered entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

### Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an Auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement

when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

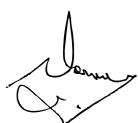
As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.  
Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our Auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our Auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



**D R Conroy FCA**

Principal  
Auditor No: 2251  
Sydney, 5th April 2018



**CONROY AUDIT & ADVISORY**  
**Chartered Accountants**

Level 2 154 Elizabeth Street Sydney NSW 2000  
**Telephone:** 02 9267 9227  
**Fax:** 02 9261 3384  
**Email:** admin@byranrush.com.au

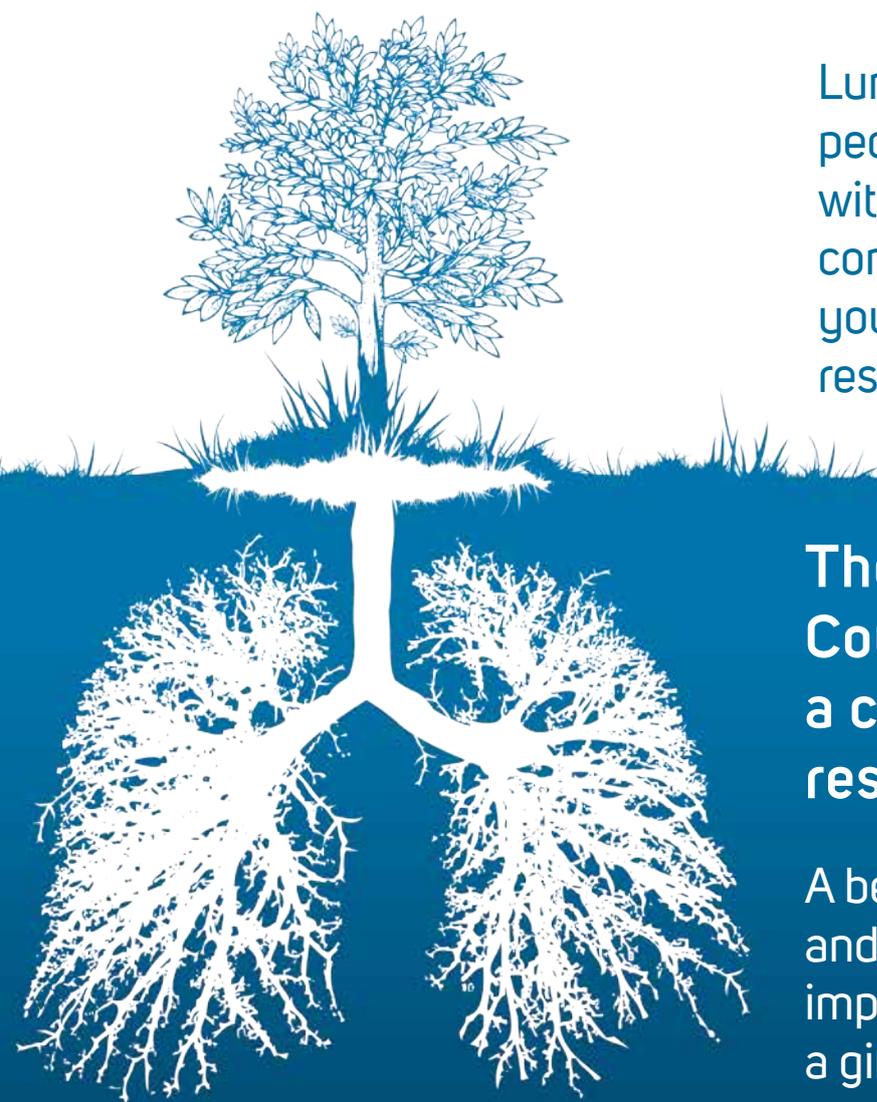
# MILESTONES

## OVER 100 YEARS OF SERVICE

- **1910** The National Association for the Prevention and Cure of Consumption forms at a public meeting in Sydney
- **1912** Australia's first tuberculosis (TB) dispensary opens in Sydney
- **1913** First Annual General Meeting of the National Association for the Prevention and Cure of Consumption was held
- **1941** Subscription from donors funds the acquisition of the first mobile x-ray unit
- **1954** Mobile x-ray units in NSW and other parts of Australia take more than 500,000 x-rays in a year
- **1957** Service expands offshore with a TB survey in Nauru
- **1982** Mobile vans are handed over to NSW Health
- **1986** The first grants are provided for respiratory research and overseas TB Control
- **2002** Laboratory skills training programs begin in the Pacific Region
- **2005** Dr Ingrid Lang is appointed as the first Ann Woolcock Research Fellow. Dr Lang's research is on Genetic influences on causal pathways of acute lower respiratory tract infections in highly susceptible infants
- **2005** In collaboration with the US Centers for Disease Control and Prevention the ARC Nurse Consultants commence annual training for nurses and health care workers across the Northern Pacific TB Programs
- **2006** Name changes from Community Health and Tuberculosis Australia (CHATA) to Australian Respiratory Council (ARC), reflecting our wider focus on respiratory health
- **2007** ARC funds two Aboriginal Tobacco Cessation Projects; The Aboriginal Health and Medical Research Council's BREATHE Project and the Aboriginal Health Council of Western Australia's Beyond the Big Smoke Project
- **2008** Development of a TB Resource Kit for professional and community education
- **2009** Funding and technical support for the project - Combating TB in factory workers and the elderly commences. ARC partners with the Cambodian Anti-TB Association to deliver this project
- **2010** Further development of resources for professional and community education
- **2010** Dr Jodie Simpson commences as the Ann Woolcock Research Fellow. Dr Simpson's research is on Characterisation and treatment of innate immune dysfunction in older people with obstructive airway disease
- **2011** ARC contributes funds for training medical officers to build research skills and capacity in future leaders in respiratory public health in Vietnam
- **2012** ARC becomes a foundation member of the newly formed Lung Health Alliance
- **2013** ARC celebrates 100 years of service and advocacy for TB and respiratory health in Australia and the Asia Pacific Region
- **2015** ARC hosted the 5th Conference of The Union Asia Pacific Region, held in Sydney, Australia
- **2016** Launch of "Funding the Discovery of New Knowledge" - a compilation of reports from Harry Windsor grant recipients 1986-2015



# GIVING TOWARDS A COMMUNITY FREE OF RESPIRATORY ILLNESS



Lung disease affects many different people; an Australian war veteran with chronic lung disease, a person continually exposed to smoking, a young child in the Pacific with drug resistant tuberculosis.

**The Australian Respiratory Council's vision is for a community free of respiratory illness.**

A bequest, large or small, is a simple and enduring way you can help to improve people's quality of life. Give a gift towards a better Life.

# TB IS CURABLE



Australian Respiratory Council ABN 11 883 368 767  
PO Box 942 Broadway NSW 2007  
Tel 02 9223 3144 Fax 02 9223 3044  
Email [arc@thearc.org.au](mailto:arc@thearc.org.au) Website [www.thearc.org.au](http://www.thearc.org.au)

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