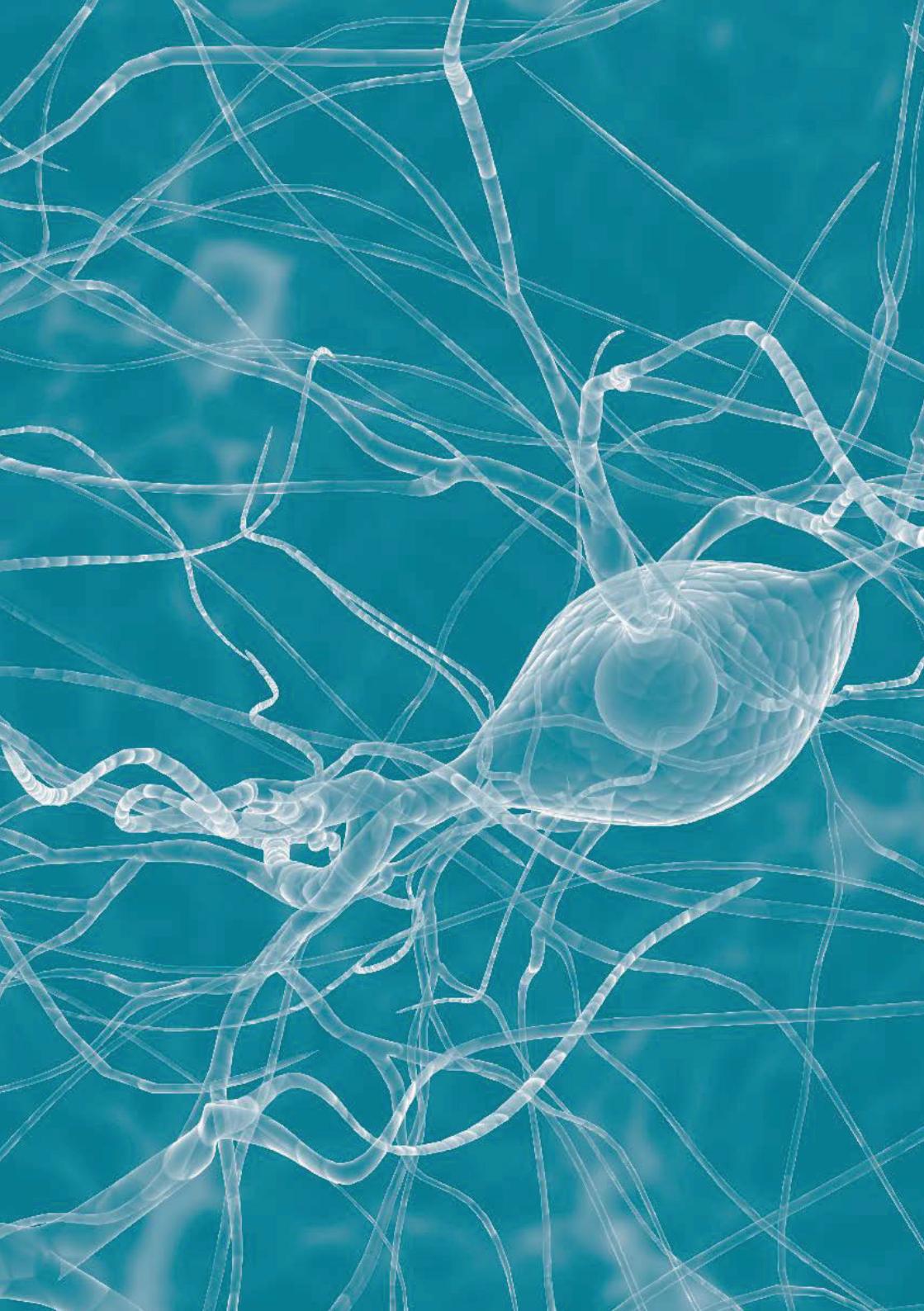




LEADERS IN BREATHING & SLEEP RESEARCH

**Our work makes a
difference to people's lives**



RESEARCH MATTERS

OUR VISION

Improved quality of life for individuals and families affected by sleep, breathing and lung disorders

OUR MISSION

The Woolcock Institute of Medical Research strives to improve breathing and sleep health globally through world-class research, clinical care and education. We are a not-for-profit research institute.

We are determined that our work creates a better life for people living with respiratory conditions and sleep disorders. Our dedication to wellbeing is at the very heart of what we do.

WHO WE ARE AND WHAT WE DO

Our team of more than 200 medical researchers is committed to investigating the causes of disease, finding better treatments and translating our discoveries into new clinical practice.

Our approach is holistic, from basic scientific research into the mechanisms of disease and through to the development of high-tech applications for the front line. Our work involves clinical investigation of new therapies and innovative approaches to patient management as well as implementation research to improve the uptake of our evidence. We also study large patient populations to determine the best public health strategy for respiratory and sleep health in our community.

The Woolcock Institute of Medical Research is ranked as the leading respiratory and sleep research organisation in Australia.

Global rankings released by the influential Times Higher Education ranked the Woolcock as the top specialist sleep and respiratory health research centre in the world.



THE LEGACY OF PROFESSOR ANN WOOLCOCK

The Woolcock Institute of Medical Research was founded by the passionate clinician and researcher, Professor Ann Woolcock. Born in the country town of Reynella, South Australia, Ann was passionate about life, learning and making a difference.

Her research has had a fundamental impact on our understanding of the causes and natural history of poor respiratory health. She was the key driving force in the establishment of both national and international treatment guidelines for respiratory disease and received the Order of Australia in recognition of her contribution to the field.



In 1984, Ann founded the world-leading Institute of Respiratory Medicine. This was later renamed the Woolcock Institute of Medical Research in 2002 in her honour. Ann passed away in 2001 but her legacy and passion lives on in the clinicians and researchers who work at the Woolcock today.

The Woolcock Institute of Medical Research is a not-for-profit research facility and has a patient clinic specialising in respiratory and sleep health.

OUR CLINICAL SERVICES

At the Woolcock Clinic, there is a team of expert medical practitioners who will provide the best possible care and treatment plans following a thorough review of a patient's medical condition.

Doctors who are at the forefront of their field are able to support patients with the latest innovations in diagnosis and cutting-edge evidence-based medicine.

THE WOOLCOCK CLINIC IS EQUIPPED TO RUN A RANGE OF COMPREHENSIVE DIAGNOSTIC TESTS INCLUDING:

- Overnight sleep studies (adult and paediatric)
- Home (portable) sleep studies
- Daytime sleep tests
- Full lung function tests
- Allergy testing (adult and paediatric)

Our clinic has modern testing facilities, comfortable patient accommodation and is conveniently located in Glebe, close to Sydney's CBD. We have 14 beds (12 adult and 2 paediatric) for sleep investigation.

WE ALSO OFFER THE FOLLOWING SPECIALISED SERVICES:

- Sleep Clinic
- Paediatric Sleep Clinic
- Lung Clinic
- Woolcock Therapy Centre - CPAP Clinic
- NeuroSleep Clinic
- Insomnia Clinic
- Narcolepsy and Excessive Sleepiness Clinic
- Breathlessness Clinic
- Chronic Cough Clinic
- Weight Loss Clinic

"Efficient and professional services. All the staff really made you feel as comfortable as possible. They were courteous, polite and considerate the whole time I was there."

- Patient



SLEEPING

Sleep problems affect virtually everybody at some point in their lives.

Disruption to sleep patterns is a risk factor for dementia, high blood pressure, heart disease, stroke and diabetes.

More than one in ten Australian adults and children suffer from chronic sleep disorders, with insomnia and obstructive sleep apnea the most common.

The importance of sleep health to the everyday lives of all Australians is immense. Sleep disorders diminish quality of life, affect the ability to think clearly and place sufferers at greater risk of injury. Without medical treatment, sleep disorders can cause serious long-term health problems such as stroke and heart disease. Poor sleep also has a substantial economic and social cost. It increases risk of motor vehicle and workplace accidents and reduces workplace performance and productivity.

The overarching aim of our research is to increase our understanding of how sleep disorders develop, progress and how they present in each individual. We also focus on identifying new tools to diagnose sleep disorders, and the development of individual-based targeted treatments that adjust for differences between patients. Our research utilises cutting-edge technologies including high density electroencephalography (EEG) which measures 256 scalp sites to give us a highly detailed map of the brain; and our unique sleep laboratory facility which allows for close control of time awareness, light, temperature, sound and sleep.

CURRENT RESEARCH PROJECTS

- Investigating poor sleep and cognitive decline in older adults
- SleepFix App – smart phone treatment for insomnia disorders
- Novel brain biomarkers of driving and vigilance performance in sleep apnea after extended wakefulness
- Light to improve sleep, circadian rhythms, cognition and daytime alertness (Cleverlight Trial)
- Cannabis-based medicine for chronic insomnia (CANSLEEP Trial)



BREATHING

Asthma is one of the most common respiratory diseases, affecting 300 million people globally. That number will rise to 400 million by 2025.

Asthma affects over 2 million Australians, or 1 in 10 people.

COPD affects more than 464,000 Australians aged 45 or over.

**1.7 million people die each year from tuberculosis (TB).
Most are infants and children.**

Tuberculosis (TB) is a world-wide problem, including in Australia. What is particularly concerning is that antibiotic-resistant strains of TB now exist and are becoming more common. We are working on new approaches to targeting and managing TB.

Our research investigates the causes and impact of asthma and chronic obstructive pulmonary disease (COPD) as well as designing better ways to treat these diseases. We are developing diagnostic tools that allow us to evaluate the severity of asthma and use 3-dimensional imaging techniques to understand how the airways in asthmatics and those with COPD close and become obstructed. We work with GPs and pharmacists to improve asthma and COPD care on a day-to-day basis.

Another area of research being studied is particulate matter air pollution, also known as particle pollution. Our scientists are studying these effects on the lung. This has become a major problem as we face new challenges in the environment.

CURRENT RESEARCH PROJECTS

- The Early COPD in Smokers Study
- Wide mass screening for TB in Vietnam to reduce TB in the population
- Improving asthma care in the community using the skills of the community pharmacist
- Allergic rhinitis and its impact on asthma
- Paediatric asthma training for healthcare professionals
- Improving health and well-being for people exposed to bushfires and smoke



LUNG CANCER

Lung cancer is the most common life-threatening cancer in both men and women.

Over 10,000 cases of lung cancer are diagnosed in Australia annually.

Unlike breast or prostate cancer, lung cancer has no diagnostic tests for early detection.

Despite these alarming statistics, lung cancer carries a stigma that makes it a taboo subject. This is likely to be due to its links to smoking, even though studies show 35 per cent of lung cancers in women are not smoking-related.

CENTRE FOR LUNG CANCER RESEARCH

The Woolcock Institute of Medical Research is home to the Lung Cancer Research Network, a team of world-class researchers from over 20 hospitals, research centres, universities and organisations who are united in the goal to better understand, treat and prevent this killer disease. The specialists come together to share data and launch large multidisciplinary projects to rapidly progress avenues of research. The Centre for Lung Cancer Research at the Woolcock is Australia's first centre dedicated to understanding and treating lung cancer, offering high-tech facilities to promote large translational research programs within the field.

CURRENT RESEARCH PROJECTS

- Development of new biomarkers for therapy response in lung cancer
- Design of innovative stents for lung surgery
- Role of the microbiome in lung cancer



BECOME INVOLVED

Research does not happen in isolation. By becoming involved with us, you are part of a group of people who dedicate their lives to achieving improved health for those in Australia and across the world.

There are many ways you can become involved with the Woolcock Institute of Medical Research. You can:

TAKE PART IN ONE OF OUR RESEARCH STUDIES

We run many research projects which are only possible because of the invaluable help of our volunteers. If you are interested in participating in any of our trials, please visit our website for details.

BECOME A STUDENT

Each year researchers at the Woolcock supervise many higher degree research students from different national and international Universities. We encourage PhD, Masters and Honours students to seize the opportunity of working alongside world leaders in respiratory and sleep research.

RECEIVE OUR NEWSLETTER

Visit our website to sign up to receive our regular newsletter outlining the latest developments in our research.

MAKE A DONATION

The Woolcock Institute of Medical Research is a not-for-profit organisation where medical researchers and healthcare professionals develop and provide better treatments for millions of Australians who suffer from sleep and respiratory disorders. Donations are vital for our ongoing life-changing research.

All donations of \$2 or more are tax deductible. Please visit our website for details.

Some examples of generous donations include:

- A PhD scholarship to investigate the latest technology to support people after lung cancer surgery
- A new, specialised device providing unique and highly detailed information about the brain during sleep and when awake
- Specialised equipment for emphysema patients to detect early warning signs of their disease

FUNDRAISE/SUPPORT A RESEARCHER/LEAVE A GIFT IN YOUR WILL/LIKE US ON FACEBOOK

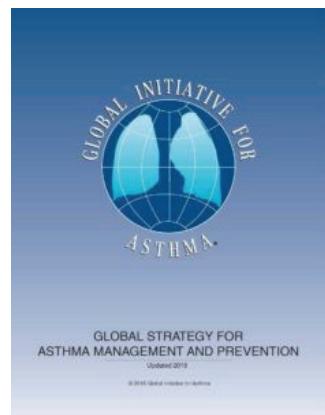
Please visit our website for details.



IMPACT OF THE WOOLCOCK

OUR RESEARCH AT THE WOOLCOCK HAS CHANGED:

- Government policy on flued and unflued gas heaters used in NSW public schools
- Routine diagnosis of sleep disorders
- Our consideration of the risks of untreated sleep apnea
- Prediction of asthma epidemics, such as thunderstorms
- Guidelines for the treatment of sleep and respiratory disorders
- NSW and International Tuberculosis control policies
- Automated lung function testing
- The role of allergen avoidance in preventing asthma
- Our knowledge of the burden of lung disease in Australia and how it is changing



With so much achieved today, imagine what your involvement can help us achieve tomorrow.





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CONTACT US

T +61 2 9114 0000

F +61 2 9114 0010

E info@woolcock.org.au

431 Glebe Point Road
Glebe NSW 2037

www.woolcock.org.au