



# Program

*Sleep education wherever you are*

**sleepweek**   
20-23 October 2020

# Sleep Week

Sleep Week will be the premier scientific and educational opportunity in 2020 for all clinicians and researchers involved in sleep health and sleep medicine across Australia, New Zealand and the Asia-Pacific region.

We will gather online from 20-23 October to share the latest research findings, learn more about best practice sleep medicine, and uncover opportunities to deliver better sleep services to more communities.

The Sleep Week program features 17 international speakers, all attending virtually, to contribute to two-hour sessions focusing on key aspects of sleep health and sleep medicine. These sessions will also include local experts, as well as short presentations on recent research findings from Australian and New Zealander researchers. There will be a panel discussion on COVID-19 topics as well as opportunities to interact virtually in online happy hours.

## Australasian Sleep Association

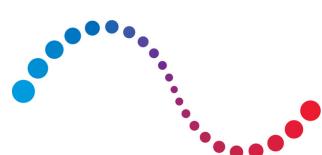
The Australasian Sleep Association (ASA) is the peak scientific body in Australia and New Zealand representing clinicians, scientists and researchers working in sleep health and sleep medicine. It promotes and provides education and training to members and the broader health community. ASA also fosters scientific research and establishes best-practice clinical guidelines.

**All Sleep Week sessions will be recorded, with delegates provided online access to all registered sessions on the ASA website.  
Register now and you can decide to watch your sessions live or on-demand!**

With thanks to our

Platinum Sponsors

Sleep Week Sponsors



**ResMed**

**PHILIPS**

 **COMPUMEDICS®**  
'Defining Life's Signals'

**Fisher & Paykel**  
**HEALTHCARE**

 **aspen**  
AUSTRALIA

**TEMPLE**  
**HEALTHCARE**



# Welcome from the President



Welcome to Sleep Week. Despite the current climate we are all living in at present, on behalf of the ASA Board, I am delighted that we are able to come together this year, not in our usual way with Sleep DownUnder, but virtually with Sleep Week.

It's important that we still maintain our connections within the community, especially now, to share our knowledge and hear the latest in Australian and International research. The work currently being undertaken by our wider scientific community and specifically our work, is so vitally important for the health and wellbeing of us all.

I would like to extend my thanks to the many individuals who have worked tirelessly to pull together what is an incredible program of Australian and International speakers. Thanks to our Sleep Week sponsors - **ResMed, Philips (Sleep and Respiratory Care), Compumedics, Fisher & Paykel, Aspen Pharmacare Australia, Temple Healthcare and Zelira Therapeutics.**

I'm looking forward to sharing in this experience with you and hopefully coming together in 2021 for Sleep DownUnder.

***Alan Young, President***

# Welcome from the CEO



I started working with the ASA earlier this year, so I haven't yet been lucky enough to attend a Sleep DownUnder conference. I'm disappointed about that, because experiencing a big national conference is the best way to really understand the many dimensions of a professional community.

Instead, this year, we have Sleep Week. The Councils and Conference Committee have done an amazing job of turning this idea into an exciting reality. It's an opportunity to learn from many more international speakers than is possible at a face-to-face meeting, and to still enjoy some of the features of Sleep DownUnder that members appreciate.

Like me, you may sense that the pandemic could change forever how we meet together as a scientific and professional community. We don't yet know what future conference will be like, but in the meantime, Sleep Week is a wonderful opportunity to gather together, learn, debate, and stay connected.

I'm looking forward to speaking with many more ASA members than I've met so far during Sleep Week. I hope you enjoy it!

***Marcia Balzer, Chief Executive Officer***

# Program Overview

	Sydney	Perth	Brisbane	Adelaide	New Zealand
<b>Tuesday, October 20</b>					
Challenging aspects of management in paediatric respiratory sleep medicine (Sponsored by Aspen Australia)	10-5pm	7-2pm	9-4pm	9:30-4:30pm	12-7pm
Fundamentals of Sleep (Sponsored by Philips)	10-5pm	7-2pm	9-4pm	9:30-4:30pm	12-7pm
Early Career Researchers	6-8pm	3-5pm	5-7pm	5:30-7:30pm	8-10pm
<b>Wednesday, October 21</b>					
Welcome and New Investigator Award presentations	10-12pm	7-9am	9-11am	9:30-11:30pm	12-2pm
ResMed Platinum sponsor product webinars	12:30-1:30pm	9:30-10:30am	11:30-12:30pm	12-1pm	2:30-3:30pm
Philips Platinum sponsor product webinars	12:30-1:30pm	9:30-10:30am	11:30-12:30pm	12-1pm	2:30-3:30pm
Chronobiology	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Dental Sleep Medicine	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Surgery	6-8pm	3-5pm	5-7pm	5:30-7:30pm	8-10pm
Philips evening symposium: Prevalence of positional OSA and clinical approaches to therapy	6-7pm	3-4pm	5-6pm	5:30-6:30pm	8-9pm
Happy Hour	7-8pm	4-5pm	6-7pm	6:30-7:30pm	9-10pm
<b>Thursday, October 22</b>					
Insomnia & Sleep Health	10-12pm	7-9am	9-11am	9:30-11:30pm	12-2pm
ANZSSA (Sponsored by Temple Healthcare)	10-12pm	7-9am	9-11am	9:30-11:30pm	12-2pm
Annual General Meeting	Sydney 12:15-1:15pm	Perth 9:15-10:15am	Brisbane 11:15-12:15pm	Adelaide 11:45-12:45pm	New Zealand 2:15-5:15pm
Paediatric	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Sleep Physicians (Sponsored by Philips)	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Primary Care (Sponsored by Zelira Therapeutics)	6-8pm	3-5pm	5-7pm	5:30-7:30pm	8-10pm
Fisher & Paykel Healthcare evening symposium: Chronic nocturnal use of humidified nasal high flow oxygen in COPD	6-7pm	3-4pm	5-6pm	5:30-6:30pm	8-9pm
Happy Hour	7-8pm	4-5pm	6-7pm	6:30-7:30pm	9-10pm
<b>Friday, October 23</b>					
Occupational Health Safety & Performance	10-12pm	7-9am	9-11am	9:30-11:30pm	12-2pm
Respiratory	10-12pm	7-9am	9-11am	9:30-11:30pm	12-2pm
ResMed Platinum sponsor product webinars	12:30-1:30pm	9:30-10:30am	11:30-12:30pm	12-1pm	:30-3:30pm
Philips Platinum sponsor product webinars	12:30-1:30pm	9:30-10:30am	11:30-12:30pm	12-1pm	:30-3:30pm
Neuroscience	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Hot Topic Discussion - An update on COVID19	2-4pm	11-1pm	1-3pm	1:30-3:30pm	4-6pm
Advanced Trainees	6-8pm	3-5pm	5-7pm	5:30-7:30pm	8-10pm
Fisher & Paykel Healthcare evening symposium: Mechanisms of nasal high flow	6-7pm	3-4pm	5-6pm	5:30-6:30pm	8-9pm
Emerging Sleep Hero Awards Happy Hour (Sponsored by ResMed)	7-8pm	4-5pm	6-7pm	6:30-7:30pm	9-10pm

# Program

Please note that times listed in the program are Australian Eastern Daylight Time (AEDT)

## Tuesday 20 October Postgraduate short courses

### Let's try and answer THOSE questions: Challenging aspects of paediatric respiratory sleep medicine

Tuesday 20 October 10am-5pm AEDT

This course aims to address those areas of paediatric respiratory sleep medicine that challenge us all. An international panel of speakers will present on a range of topics relating to different aspects of sleep disordered breathing and ventilation in infants and children. The course will discuss controversial areas specific to paediatrics, such as the limitations of gold standard PSG monitoring, management of persistent OSA when CPAP fails and ethical issues around respiratory support in children with complex medical conditions. There will be the opportunity to interact with the speakers throughout the course, with case discussions utilised to illustrate key points and stimulate discussion areas.

This course is intended for pediatricians, sleep clinicians, sleep scientists/ technicians, ENT surgeons, nurses, fellows, students and anyone involved in the management of infants and children with sleep disorders.

#### Speakers and topics

- Unanswered questions in paediatric sleep disordered breathing: an overview – **Jasneek Chawla**
- Infants with laryngomalacia – when does sleep monitoring help the surgeon? – **Nicola Sree**
- Intricacies of ventilating infants: when does a tracheostomy help? – **Joanna Maclean**, University of Alberta Canada
- When should we start ventilation in neuromuscular disease: an update on evidence – **David Kilner**
- The AHI doesn't help...what else can we use in paediatric OSA? – **Colin Sullivan and Mark Norman**
- The ever-recurring question: which snoring child needs surgery? – **Karen Waters**
- My child won't wear CPAP – what else can we try? The role of the ENT surgeon – **Derek Lam**, Oregon Health and Science University, USA
- My child won't wear CPAP – what else can we try? Non-surgical options – **Jasneek Chawla**
- My child won't wear CPAP – what else can we try? The role of the craniofacial surgeon – **Yun Phua**
- My child won't wear CPAP... Does it matter? Complications of untreated OSA – **Catherine Hill**, University of Southampton, UK
- Withholding respiratory support in children – when is it the best thing to do? – **Paul Walker**

Proudly sponsored by



# Fundamentals of sleep

Tuesday 20 October 10am-5pm AEDT

This postgraduate short course provides a foundation for future learning in sleep medicine for dentists, pharmacists, nurses, general practitioners, surgeons, psychologists and medical advanced trainees.

Join expert sleep clinicians and researchers for a day's journey into all you ever wanted to know about sleep, and use it as the basis for improving your knowledge and skills in the years to come.

Please note: This education activity has been approved in the RACS CPD Program. Fellows who participate can claim one point per hour in Maintenance of Knowledge and Skills. Participation in this activity will be populated into your RACS CPD Online.

## Speakers and topics

- What is sleep, why is it important? - **Christopher Worsnop**
- What is 'good sleep' and how to wake refreshed in the morning - **Nigel McArdle**
- Societal prevalence and consequences of sleep disorders - **Yu Sun Bin**
- How do we measure sleep? - **Kerri Melehan**
- Assessing and managing sleepiness for safety critical work - **Mark Howard**
- The three clocks - what is the circadian rhythm? - **Amy Reynolds**
- Common non-respiratory sleep disorders (1): circadian rhythm disorders, restless legs and periodic limb movement syndromes, parasomnias, narcolepsy - **Fergal O'Donoghue**
- Common non-respiratory sleep disorders (2): insomnia - **Hailey Meaklim**
- Sleep disordered breathing - OSA, CSA, UARS, snoring and hypoventilation - **Bhajan Singh**
- Co-morbidities of OSA - diabetes, hypertension, cardiovascular disease - **Kirk Kee**
- Consequences of OSA - cognitive dysfunction, depression and dementia - **Michelle Olaithe**
- Management of OSA - CPAP - **Liam Hannan**
- Surgical management of sleep disordered breathing - **Leon Kitipornchai**
- Management of OSA - weight loss, positional therapy, others - **Simon Joosten**
- Oral appliances to manage sleep-disordered breathing, including side effects - **Ramesh Balasubramaniam**
- Clinical management pathways for the patient with OSA - **Maree Barnes**
- Paediatric sleep apnoea and management - **Jasneek Chawla**

## Early Career Researchers

### Consumer and citizen engagement and the search for philanthropic grants

Tuesday 20 October 6pm - 8pm AEDT

This free session designed for early career researchers covers engaging consumers in research, harnessing the potential of citizen science approaches, and how to pitch for philanthropic grants.

The speakers are **Shantel Duffy** (Deputy Director of the Healthy Brain Ageing Program and Leader of the Lifestyle, Exercise and Physical Activity Program in the Healthy Brain Ageing Clinic, University of Sydney), **Samantha Rowbotham** (Lecturer in Health Policy at the University of Sydney) and **Sinthia Bosnic-Anticevich** (Woolcock Institute of Medical Research).

**Shantel Duffy's** session is titled *Engaging consumers in research*.

**Samantha Rowbotham** currently leads a program of research with the Australian Prevention Partnership Centre exploring the potential of citizen science approaches as a means of engaging the public in research, policy and practice in chronic disease prevention. In this session she will provide an introduction to citizen science approaches and situate these in relation to other forms of public engagement in research and decision-making. She will discuss examples of citizen science approaches from her own work and the work of others in order to stimulate discussion on how these approaches might be applied in the field of sleep research.

**Sinthia Bosnic-Anticevich's** session is titled *Philanthropic grants: where are they and how can I get one?*

# Wednesday 21 October

## Welcome and New Investigator Award presentations

10am - 12pm AEDT

Sleep Week opens with a welcome from President, Alan Young, followed by research presentations from the six finalists for this year's New Investigator Award. This is a free session.

### New Investigator presentations

- A novel EEG derived marker of sleep depth/alertness predicts excessive daytime sleepiness and perceived poor sleep in large population-based cohorts - **Bastien Lechat**
- Estimating dim light melatonin onset from sleep markers derived from the Munich Chronotype Questionnaire and actigraphy - **Andrew Reiter**
- How do parents sleep? Using a multimethod approach to assess and manage parental insomnia - **Prerna Varma**
- Correspondence between physiological and behavioural responses to vibratory stimuli during the sleep onset period: a quantitative electrophysiology analysis - **Hannah Scott**
- Shift work management: the risk factors, consequences and treatment for Shift Work Disorder in nurses - **Lauren Booker**
- Armodafinil to reduce the sleepiness related side-effects of Sleep Restriction Therapy being used to treat Insomnia Disorder (MODERATE): an open label pilot study compared to historical matched controls - **Daniel Judge**

## ResMed Platinum sponsor product webinar

Wednesday 21 October 12:30pm - 1:30pm AEDT

### Session 1: Integration of Remote PAP monitoring into telehealth

12:30-1:10pm AEDT (40mins)

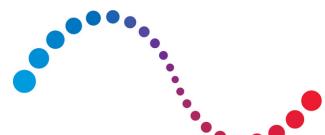
The COVID-19 pandemic has accelerated the adoption of digital solutions such as remote patient monitoring and telehealth. Services that integrate cloud-based patient management solutions, i.e. AirView, have found that it makes patient triage more effective and enabled clinicians to manage patient therapy needs better. In this session, our invited panelists will be presenting two use case examples and be discussing how they have set up and integrated remote monitoring into their services.

Speakers: **Jerome Abellana and Rainy Ng**

### Session 2: AHI and Advanced Events Detection with AirView

1:10-1:30pm AEDT (20mins)

In this session, we discuss how ResMed devices monitor central and obstructive apnea, hypopnea, Cheyne-Stokes respiration, respiratory effort related arousal (RERA) and SpO<sub>2</sub>. We will also demonstrate how clinicians can use AirView to access this information and how to monitor large patient populations with it proactively.



Speaker: **Richard Napper**

## **Philips Platinum sponsor product webinar**

Wednesday 21 October

Session 1: 12:30pm AEDT

Session 2: 1:00pm AEDT

### **Mask Selector 3D**

Join one of our two product webinar sessions on the new Philips Mask Selector 3D. Learn how the technology was developed and how it can be utilised to benefit both you and your patients.



## **Chronobiology**

Wednesday 21 October 2pm - 4pm AEDT

### **Let there be light...The impact of daylight savings time and evening light on the human circadian system**

Exposure to bright light - whether it be natural or man-made - exerts a powerful impact on the timing of the human body clock. Our ancestors organised their daily life and routines by the rising and the setting of the sun. But now, most of us live in cities, work indoors, and use electric light at night.

Because of this, we tend to organise our daily lives by a 'social clock' that is not always synchronised with sunrise and sunset or the body clock. Light plays an important role in shaping our behaviour and the body clock plays an important role in maintaining our health and wellbeing.

Join us for a 'light-hearted' discussion about daylight savings time and evening light exposure and the challenges these two conditions present for human health and safety.

**Celine Vetter** from the University of Colorado Boulder and **Andrew Phillips** from Monash University will be discussing the latest research and its implications.

### **Oral Presentations**

- The relationship between salivary and urinary melatonin in young adults with short-sightedness (myopia) compared to normally sighted young adults (emmetropes) - **Gorica Micic**
- The influences of social restrictions related to the COVID-19 pandemic on sleep among staff at a tertiary education institution in NZ - **Sally Baddock**
- Genetic and environmental influences on sleep/wake behaviours in adolescent twins - **Victoria O'Callaghan**
- Sleep in late pregnancy: a qualitative study - **Sally Baddock**

## Dental Sleep Medicine

Wednesday 21 October 2pm - 4pm AEDT

**Benjamin Pliska** from the University of British Columbia in Canada looks at the orthodontic perspective of OSA in children, including CBCT imaging and facial morphology.

The current state of research has highlighted the significant negative impact of sleep disordered breathing in children, and the role orthodontists can play in the management of this disease has become better defined. This presentation will re-examine the relationship between sleep disordered breathing and craniofacial growth and development in light of new clinical data. The current evidence related to orthodontic treatment effects on obstructive sleep apnoea and how CBCT imaging relates to the upper airway will also be discussed.

**Ramesh Balasubramaniam** from the University of Western Australia discusses sleep bruxism, its causes, detection, treatment and current advances.

Dental Sleep Medicine traditionally focuses on sleep-related breathing disorders, such as snoring and obstructive sleep apnoea (OSA). However, everyday practice shows that disorders like these can be accompanied by other sleep disorders that touch on dentistry. A new definition, which covers all the diagnostic and treatment aspects of these disorders, has been formulated for dental sleep medicine. In this presentation **Ghizlane Aarab** from the Academic Centre for Dentistry Amsterdam will discuss the current and future state of affairs of dental sleep medicine.

### Oral Presentations

- Comparative effects of CPAP and mandibular advancement splint therapy on blood pressure variability in moderate to severe obstructive sleep apnoea - **Hasthi Dissanayake**
- Effect of masseter and lateral pterygoid muscle size on mandibular advancement splint therapy - **Anna McLean**
- Acceptance, compliance and efficacy of mandibular advancement splint therapy in atrial fibrillation patients - **Anna Mohammadieh**

## **Surgery**

Wednesday 21 October 6pm - 8pm AEDT

### **The future of sleep surgery in Australia**

This session has applicability to all clinicians who manage sleep-disordered breathing. The focus of the session is on the future of sleep surgery in Australia - in particular, where surgery can play a role in managing OSA, challenges in producing high quality evidence to guide surgeons of the future, and who should be the practitioners of sleep surgery in the future.

#### **Topic and speakers**

- Minimally invasive treatments for OSA and snoring - **Bhik Kotecha**, Royal National Throat, Nose and Ear Hospital, UK
- Where will nerve stimulation fit in the OSA treatment paradigm in Australia? - **John Wheatley**
- Challenges and biases in publishing surgical studies - **Edward Weaver**, University of Washington, USA
- Australian OHNS Trainee Sleep Surgery Education Study - **Nathan Hayward**
- Who are the best people to perform sleep surgery in Australia? - **Stuart Mackay**

Please note: This educational activity has been approved in the RACS CPD Program. Fellows who participate can claim one point per hour in Maintenance of Knowledge and Skills. Participation in this activity will be populated into your RACS CPD Online if you email your RACS ID number to [communications@sleep.org.au](mailto:communications@sleep.org.au)

## **Philips evening symposium**

Wednesday 21 October 6pm - 7pm AEDT

### **Prevalence of positional OSA and clinical approaches to therapy**

Hosted by Phillips, this symposium covers the characteristics of positional obstructive sleep apnoea (POSA), its prevalence and pathophysiology. Clinical evidence will be highlighted to show insights into therapy options and compliance.

Dr Nico de Vries and Dr Raphael Heinzer are the speakers for this session, with Dr Jun (JK) Khoo as chair. This is a free session.



## **Wednesday Happy Hour**

Wednesday 21 October 7pm - 8pm AEDT

Wednesday's Happy Hour is hosted by Angela Campbell from Wellington (New Zealand) and a time zone that's rather close to bedtime. So, come dressed in your best PJs, onesie or nightcap, bring Teddy and your favourite relaxing beverage for a casual chat about the day's events and a lighthearted quiz on sleep! Angela will be hosting from her sleep lab, and we'll also get to say hello to the team on shift at WellSleep Centre, University of Otago.

# Thursday 22 October

## Insomnia and Sleep Health

Thursday 22 October 10am - 12pm AEDT

### **Effective, essential and employable: the role of mindfulness and acceptance-based therapies in management of sleep disorders**

Featuring **Jason Ong** from Northwestern University in the US, and **Eric Morris** from LaTrobe University, this session includes presentations and discussion useful for researchers, clinicians and students.

**Jason Ong** will examine the applicability of mindfulness-based therapies (MBT) to improve outcomes related to various sleep disorders. The presentation will highlight different MBT approaches, with a specific focus on specialised Mindfulness Based Therapy for Insomnia that combines elements from MBT and Cognitive Behaviour Therapy for Insomnia (CBT-I). The presentation will include a summary of recent research on applicability of MBT approaches in context of different sleep disorders as well as how the accessibility and adherence to the treatments can be improved.

Principles of Acceptance and Commitment Therapy (ACT) will be discussed by speaker **Eric Morris**, with elaboration on how these principles can be translated into clinical practice for sleep disorders. Useful act approaches will be explored for treating insomnia in adults, particularly in individuals that may have co-existing conditions such as Autism Spectrum Disorder, depression and bipolar disorder.

Both speakers will engage in a discussion on current treatment issues in clinical practice and future integration of MBT or ACT interventions in clinical sleep treatments.

### **Oral Presentations**

- Sleep in the time of COVID-19: Impact of a global pandemic on sleep and mental health - **Melinda Jackson**
- An evaluation of wind farm noise effects on sleep using validated objective and subjective sleep assessment: a systematic review and meta-analysis - **Tessa Liebich**
- The effect of body position on maternal cardiovascular function during sleep and wakefulness in late pregnancy - **Danielle Wilson**
- A double-blind placebo controlled, randomised cross-over evaluation of medicinal cannabis for treating insomnia symptoms - **Jennifer Walsh**
- Sleep misperception among older adults suffering from insomnia with short and normal objective sleep duration and the effects of Cognitive Behaviour Therapy - **Nicole Lovato**

## **ANZSSA**

Thursday 22 October 10am - 12pm AEDT

### **The only thing that is constant is change**

#### **Topics and speakers**

- The pressure to protect staff when applying pressure - **Michelle Ananda-Rajah**
- Level 4 testing during stage 3 lockdown - **Nicole Verginis**
- Access to patient data when the patient is not so accessible:  
CPAP pump data access in a sleep service - **Julie Tolson**  
How do filters added for COVID-19 affect non-invasive ventilator performance? -  
**Rodney Hone**  
Trial of respiratory rate measurement for COVID-19 patient monitoring -  
**Tom Churchward**
- More than sleep. Using PSG's for COVID-19 and other diseases -  
**Erna Arnadottir**, University of Reykjavik, Iceland

Proudly sponsored by



## **Annual General Meeting**

Thursday 22 October 12:15pm - 1:15pm AEDT

The ASA's Annual General Meeting plus announcement of award winners for 2020 - New Investigator Award, Distinguished Service Award and President's Award. This is a free session.

## **Paediatric**

Thursday 22 October 2pm - 4pm AEDT

Join two leading international speakers for a cutting-edge session in paediatric sleep medicine.

### **I sleep, therefore I learn: a lesson for the ephemera society**

**Karen Spruyt**, University of Lyon, France

One of the main tasks in childhood is learning. Another primary activity during childhood is sleeping. During sleep, the brain is switched into an activation state that is distinct from wakefulness at both microscopic (e.g., spindles) and macroscopic (e.g., sleep duration) levels. Progressively more studies overall conclude that without proper sleep a child's cognitive abilities suffer, but questions on how and to what extent, linger. In this talk, we provide a state of the art on the impact of sleep on cognition.

## **Children's sleep in hospital – can we do better?**

**Catherine Hill**, University Hospital Southampton, UK

Hospital routines and ward sleep environments are rarely conducive to a good night's sleep.

Sleep debt affects co-sleeping parents as well as the inpatient child. This matters because short, or broken sleep affects mood, emotional regulation, pain tolerance and immune function. In this talk we will review the international evidence on the impact of the hospital environment on sleep and consider approaches to promote healthy sleep alongside safe care.

### **Oral Presentations**

- A meta-analysis of the relationship between subjective sleep and depression in adolescence - **Victoria O'Callaghan**
- Sleep planning in adolescents: daily associations between bed and rise time planning and sleep opportunity over 28-day of school and vacation - **Svetlana Maskevich**
- Perceived sleep need, cumulative sleep deficit, and associations with daily affect in adolescents: a 28-day study over school and holiday periods - **Lin Shen**
- Associations between sleep and heart rate variability in healthy young children - **Barbara Galland**
- Polysomnography in infants: a study in the characteristics of infants with suspected sleep disordered breathing - **Jagdev Singh**
- Early changes in airway obstruction in infants with Robin Sequence - **Belema Dede**
- Adherence to CPAP in children is not improved by autotitrating CPAP and remote modern monitoring - **Anna Mulholland**
- Effects of pre-operative CPAP on postoperative outcomes following adenotonsillectomy in children with OSA - **Katrina Zaballa**

## **Sleep Physicians**

Thursday 22 October 2pm - 4pm AEDT

### **State of the art: sleepiness, restless legs and use of consumer data to measure sleep**

#### **Topics and speakers**

- Hypersomnia
  - Measurement and classification - can we do better? - **Simon Frenkel**
  - Advances in pharmacotherapy - **Claire Ellender**
- Restless legs syndrome
  - Difficult restless legs - are opiates the answer? - Speaker TBC
  - Q&A - **John Swieca**
- Consumer data
  - What can consumer data - big and small - tell us about sleep? - **Olivia Walsh**, University of Michigan, USA
  - Q&A - **David Cunningham and Olivia Walsh**

Proudly sponsored by

**PHILIPS**

## **Primary Care**

Thursday 22 October 6pm - 8pm AEDT

### **Primary care management of insomnia**

**Christina Sandlund** from Sweden's Karolinska Institutet will discuss implementing CBT-I as group treatment led by nurses in seven primary health centres in Stockholm. The effects of treatment were evaluated in a randomised controlled trial. Focus group interviews to explore patient's experiences of the treatment were also conducted as part of the project.

**Claire Ellender** will lead a 20-minute care-based discussion of insomnia pharmacotherapy in the management of chronic insomnia.

### **Oral Presentations**

- Systematic review and IPD meta-analysis of randomised trials comparing primary care vs specialised sleep centre management of obstructive sleep apnoea - **Emer Van Ryswyk**
- Is cumulative time of oxygen desaturation a better predictor of cardiovascular mortality than Apnoea Hypopnoea Index? - **Nadi Sadr**
- Sleep health with ageing: interviews exploring the experiences, attitudes and behaviours of older people living in Aotearoa - **Rosemary Gibson**
- Prevalence of cognitive impairment in patients undergoing evaluation for obstructive sleep apnoea in an Australian population - **Asha Bonney**

Proudly sponsored by



## **Fisher & Paykel Healthcare evening symposium**

Thursday 22 October 6pm - 7pm AEDT

### **Chronic nocturnal use of humidified nasal high flow oxygen in COPD patients - effects on exacerbations and hospitalizations**

Presenters **Ulla Weinreich** and **Line Storgaard** from Aalborg University Hospital, Denmark conducted the largest RCT study to date using chronic nasal high flow (NHF) and myAIRVO to treat COPD patients who were already using long term oxygen therapy. 200 patients were randomly assigned into either the control group (standard care), or the NHF group (standard care and NHF) and were evaluated over one year of treatment and care. The results of this landmark study will be presented. This includes the main study results demonstrating the close to 40% reduction in exacerbations, improved quality of life, reduced dyspnea and hypercapnia, and a reduction in hospitalization for those who complied with the therapy. Also being presented will be a recently published qualitative study where 20 people including some trial participants and family caregivers were asked a series of structured questions around their experience using myAIRVO at home, and a preliminary health economic analysis based on the result of the original RCT. This is a free session.

Proudly sponsored by



## **Thursday Happy Hour**

7pm - 8pm AEDT

Thursday's Happy Hour is hosted by Peter Eastwood in Perth. It has a networking theme, so come with your favourite cocktail in hand and ready to mingle with colleagues in short breakout sessions. Early career researchers will have a breakout session together to talk through a proposal for a new ASA group to support them, and an opportunity to mix with senior colleagues in breakout sessions. Come to talk through what you've learnt during the day's sessions, and how to support our early career colleagues.

This Happy Hour is sponsored by Platinum Sponsor, Philips.

Proudly sponsored by



## **Friday 23 October**

### **Occupational Health Safety & Performance**

Friday 23 October 10am - 12pm AEDT

#### **Irregular working hours and sleep**

#### **Shift work and circadian challenges beyond Earth**

**Laura K Barger** from Harvard Medical School, USA, will present on shift work and circadian challenges on the International Space Station, in a 105-day simulation study in Moscow and in the Phoenix Mars Lander project. Fatigue countermeasures used in those situations will also be presented.

#### **Shift work and the effectiveness of different coping strategies**

**Jill Dorrian's** presentation will focus on the types of coping strategies that are used by shift workers and will discuss the effectiveness of these strategies in maintaining performance and vigilance while at work and aiding sleep between shifts.

#### **Oral Presentations**

- The relationship between off-site on-call shifts and sleep, mood and vigilance among doctors - Doctors On-Call (DOC) study - **Wai Mun (Raymond) Wong**
- Assessment of fitness to drive in Counties Manukau sleep patients - **Alison Goldthorpe**  
Cough syncope: A case series. Last line of defence for fatigue related motor vehicle crashes? - **Suzy Guo**

## **Respiratory**

Friday 23 October 10am - 12pm AEDT

### **OSA and COVID-19 topics by demand**

**Respiratory support for COVID-19 pneumonitis through the pandemic: the role of NIV, HNFO and CPAP**, presented by **Alister Neill** and **NIV respiratory support for non COVID19 patients through the pandemic**, presented by **Mark Howard** will examine aspects of COVID-19 treatment as requested by Respiratory Council members. This will include the use of NIV in non-COVID patients during the pandemic.

### **Ocular manifestations of sleep apnoea**

**Charles Bouchard** from Loyola University Chicago will present on ocular manifestations of sleep apnoea. His presentation will outline the anterior segment (cornea, orbit, eyelids) and posterior segment (glaucoma, retina, neurological) manifestations of obstructive sleep apnoea.

### **A cardiologists' perspective: obstructive sleep apnoea and atrial fibrillation**

**Omar Farouque** will outline the pathophysiological links between OSA and atrial fibrillation (AF), both common co-morbidities. The impact of treating OSA on management of AF will be explored including the potential value of screening for OSA in AF patients.

### **Oral Presentations**

- Does craniofacial phenotype relate to sleep apnoea severity reduction following weight loss interventions? A patient level meta-analysis - **Kate Sutherland**
- APAP variation between devices from different manufacturers - **Angela Campbell**
- Cross sectional association between measures of sleepiness in obstructive sleep apnoea and cardiovascular disease in the Western Australian Sleep Health study - **Shok Yin Lee**
- Conducting a non-contact sleep study in the era of COVID-19 - **Jason Kristek**
- Are subjects recruited to randomised controlled trials representative of typical sleep clinic patients - **Ayesha Reynor**
- Sleep and mood in a bubble: The impact of changed sleep during COVID-19 alert level restrictions on anxiety, depression and loneliness - **Rosemary Gibson**

## **ResMed Platinum sponsor product webinar**

Friday 23 October 12:30pm - 1:30pm AEDT

### **Clinical insights using data science from cloud connected PAP devices**

Advances in cloud computing technologies and data science allow us to produce insights that we can use to maximise clinical benefits. Our speaker will be sharing what they've learnt from their deep analyses of data from cloud-connected PAP devices in areas such as PAP Adherence, non-compliant OSA, patient engagement and overall usage pattern. In the second half of the session, we will be presenting the digital solutions we have.

Speakers: **Adam Benjafied, Jerome Abellana and Rainy Ng**



## **Philips Platinum sponsor product webinar**

Friday 23 October

Session 1: 12:30pm AEDT

Session 2: 1:00pm AEDT

### **Trilogy Evo and Care Orchestrator**

Join one of our two product webinar sessions demonstrating the Philips Trilogy Evo ventilator and Philips Care Orchestrator patient management tool. Learn how simple, portable, reliable and adaptable the Trilogy Evo is and how we can view patient data including breath by breath waveform using Care Orchestrator.



## **Neuroscience**

Friday 23 October 2pm - 4pm AEDT

### **From Animal Models to Artificial Intelligence: State of the Art in Sleep Neuroscience**

**Lucy Tainton-Heap's** *A paradoxical kind of sleep in Drosophila melanogaster: Implications for understanding the ontogeny of REM sleep*, will present cutting edge work on sleep states in the fruit fly and their similarities to sleep stages in both mammals and birds.

**Henri Korkalainen**, our invited international speaker from the University of Eastern Finland & Kuopio University Hospital, will present on *Deep learning solutions for sleep medicine*. This talk will outline the development of automatic approaches for assessing sleep architecture and sleep disorders by employing artificial intelligence (AI), neural networks and simple measurement setups, such as identifying sleep stages with a single EEG channel or photoplethysmography signals..

The Neuroscience session will also include a panel discussion between speakers: Lucy Tainton-Heap, Stephanie Rainey-Smith, Amy Jordan and Jing-Wei Li.

### **Oral Presentations**

- Sleep and neuroimaging biomarkers of brain health in older adults -  
**Stephanie Rainey-Smith**
- Motor control of the genioglossus during after-discharge - **Amy Jordan**
- Self-reported snoring patterns predict stroke events in high-risk patients with obstructive sleep apnoea: post-hoc analyses of the SAVE study - **Jing-Wei Li**

## **Hot topic discussion**

Friday 23 October 2pm - 4pm AEDT

### **An update on COVID-19**

A panel of experts - chaired by **Alan Young** and including Federal Deputy Medical Officer, **Nick Coatsworth** - provides a snapshot of where we're at with COVID-19, and the implications for health systems in the future. There will also be time for questions and discussion.

- COVID-19 - Where have we come from and where are we going? -  
**Nick Coatsworth**, Federal Deputy CMO
- COVID-19 transmission and risks for healthcare workers - **Stephen Guy**
- Risks and benefits of acute NIV for COVID-19 infection - **Amanda Piper**
- Monitoring in the time of COVID-19 - **Teanau Roebuck**
- Challenges to the National COVID-19 Clinical Evidence Taskforce - **Sutapa Mukherjee**

## **Advanced Trainees**

Friday 23 October 6pm - 8pm AEDT

Clinical research project presentations from Medical Advanced Trainees.

- Obstructive sleep apnoea among First Nations People in South East Queensland -  
**Robert Carroll**
- Pacific Islanders have more apnoea-related hypoxaemia than Caucasian patients for the same obstructive event frequency - **Lucy Ranzenbacher**
- Phenotyping sleep disordered breathing in motor neuron disease - A single centre 7 year retrospective study - **Imran Haque**
- Prevalence of narcolepsy in a large tertiary centre in New South Wales - **Esha Joshi**
- Review of work shift effects on doctors' concentration, mood and sleepiness -  
**Susana Mu**
- Depression scores improve with continuous positive airway pressure (CPAP) in specialized sleep clinics: real world data - **Annie Walker**
- Obstructive sleep apnoea: Polysomnographic features pointing to dementia:  
**Christopher Price**
- Experiences from an outpatient positive airway pressure (PAP) acclimatisation clinic in Canberra Hospital (2011-2019) - **Michael Han**
- Comparison of inpatient and outpatient titration of domiciliary non-invasive ventilation (NIV) - **Raymond Blackbeard**
- The influence of sex on comorbidities and quality of life in Australian adults with diagnosed OSA and undiagnosed but high risk OSA - **Sowmya Krishnan**
- Clinical efficiency and effectiveness of home-based sleep diagnostic model for the diagnosis and management of obstructive sleep apnoea (OSA) in a large metropolitan tertiary adult sleep centre - **Chris Langton**
- Non-physical contact delivery of auto-titration positive airway pressure therapy during New Zealand's COVID-19 lockdown - **Leon Huang**
- Peri-operative assessment of sleep-disordered breathing in patients undergoing primary bariatric surgery; A single centre experience and retrospective correlation of the SOBA UK guidelines with diagnostic polysomnography - **Kirryn Williams**

- Sleep disordered breathing in heart, lung; heart and lung transplant patients - **Rivindi Watthayalage**
- A retrospective analysis of the efficacy of MAS devices in the management of OSA - **Kieren Brown**
- Effect of tongue fat on inspiratory tongue dilation function in awake people with obstructive sleep apnoea - **Emma Stumbles**
- Spirometry to identify moderate to severe obstructive sleep apnoea - **Daniel Wang**
- Prediction of sleep hypoventilation using awake supine finger pulse oxygen saturation on room air in patients undergoing sleep studies with a high pre-test probability of sleep hypoventilation - **Shu Han Emily**
- Clinical value of concurrent arterial blood gas and transcutaneous carbon dioxide monitoring during treatment sleep study: A real world experience - **Cheng Siew**
- Retrospective review of self-reported versus objective sleep position in patients undergoing level 1 polysomnography at The Prince Charles Hospital - **Thomas Skinner**
- Determinants of short-to-medium-term CPAP compliance following CPAP titration polysomnography - **Julia Bashford**
- Sleep quality and safety concerns in Australian Doctors-in-Training: a cross-sectional study - **Lauren Ng**
- Inter-night concordance of nocturnal oximetry in patients with Motor Neurone Disease - **Henry Ainge-Allen**

## Fisher & Paykel Healthcare evening symposium

Friday 23 October 6pm - 7pm AEDT

### Mechanisms of nasal high flow

This session covers the three key mechanisms of Nasal High Flow (NHF) - respiratory support, hydration and oxygen presented through an educational tool which the presenter has developed and widely used.

**Stanislav Tatkov** joined Fisher & Paykel Healthcare in 2007 and is involved in Research and Development of high flow systems. His research interests cover respiratory physiology and chronic respiratory diseases. He obtained his MD and PhD degrees in Russian State Medical University, Moscow. Prior to joining Fisher & Paykel Healthcare he researched mucociliary transport and the role of humidification on mucus transport velocity at Massey University, New Zealand. This is a free session.

Proudly sponsored by





## Emerging Sleep Hero Awards Happy Hour

Friday 23 October 7pm - 8pm AEDT

Energy, fun and excitement are the dominant themes of Friday's happy hour, hosted by the Sleep Health Foundation and the newly-launched Australian Sleep and Alertness Consortium.

The Emerging Sleep Hero Awards will offer Australian and New Zealand university students with a primary research focus on sleep or alertness an opportunity to showcase their research and its impact.

Five finalists, listed below, will give a five-minute creative pitch live during the happy hour about their research, how they could see their research being translated into practice and enable it to have a positive impact on society. With lots of opportunity for audience interaction along the way, the judges will announce the winners at the end of the session, finishing Sleep Week on a high note. This is a free session.

**Finalist 1: Lucy Ymer**, Turner Institute, Monash University  
Speaking on Brain injury, sleep and fatigue

**Finalist 2: Meagan Crowther**, Central University Queensland  
Speaking on Paramedics and sleep

**Finalist 3: Hailey Meaklim**, Turner Institute, Monash University  
Speaking on Education of psychologists to treat insomnia

**Finalist 4: Clare Ladyman**, Massey University, Wellington  
Speaking on Maternal perinatal sleep

**Finalist 5: Karen Redhead**, University of Notre Dame, Perth  
Speaking on Pregnant women, OSA and Depression

Proudly sponsored by



# Sleep Week Sponsors

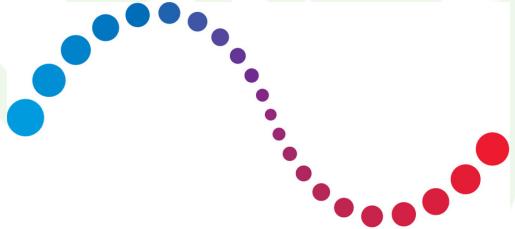
**ResMed**

***Platinum sponsor***

***Emerging Sleep Hero Awards Happy Hour sponsor***

ResMed began in 1989 in Australia to help millions of people sleep and breathe easier. Today, we are leading the way in sleep health, respiratory care and digital technology worldwide. We know how important sleep is to health and quality of life. It's why we're so committed to providing solutions for people every day. Across each of our product categories, we've earned our success with offerings that have changed the lives of people who use them. As we grow, we'll continue to innovate while promoting greater awareness of sleep health and sleep disorders such as sleep apnea. While much work has been done, we're just getting started.

<https://www.resmed.com/au/en/healthcare-professional.html>



**ResMed**

A decorative graphic consisting of a series of colored dots forming a curved path from left to right. The path starts with blue dots on the left, transitions through purple dots in the middle, and ends with red dots on the right. This path is set against a background of light green, wavy, abstract shapes that resemble DNA helixes.

**Phillips**

***Platinum Sponsor***

***Evening symposium sponsor, Sleep Physicians session sponsor and Fundamentals of Sleep short course Sponsor***

At Phillips, we look beyond technology to the experiences of consumers, patients, providers and caregivers across the health continuum – from healthy living and prevention to diagnosis, treatment and home care. We unlock insights leading to innovative solutions that enable better care at lower cost. With leading research, design and innovation capabilities, we partner with our customers to transform the delivery of healthcare.

As a global leader in the sleep and respiratory markets, we're passionate about providing solutions that lead to healthier patients, practices, and businesses. For us, innovation in sleep apnoea management, oxygen therapy, noninvasive ventilation, and respiratory drug delivery is driven by gaining insight into the needs of our customers.

We believe that effective sleep therapy management empowers patients to rediscover their dreams and to have the freedom to live a fulfilling life by restoring their ability to sleep comfortably - as sleep is intended to be. We are passionate about providing patient-driven designed products that help patients lead healthy lives and, for providers, solutions designed to increase patient adoption, long-term use and enhanced efficiencies that help them attend to patient's needs.

[www.philips.com.au/respironics](http://www.philips.com.au/respironics)

**PHILIPS**

## **Compumedics**

### ***Technology sponsor***

Compumedics Limited is a trusted medical device company involved in the development, manufacture and commercialisation of diagnostic technology for the sleep, brain and ultrasonic blood-flow monitoring applications.

Executive Chairman Dr David Burton founded Compumedics in 1987. In the same year the Company successfully designed and installed the first Australian, fully computerised sleep clinic at Epworth Hospital, Melbourne. Following this early success, Compumedics focused on the development of products that sold into the growing international sleep clinic and home monitoring markets.

Compumedics is today, Australia's leading sleep diagnostic provider, offering technologically forward, intuitive and comprehensive range of solutions for the clinical laboratory setting to the home.

Explore some of our highlights:

- **Grael-4K** diagnostics system is the world's first high-definition PSG solution with the latest digital amplifier technology. When you need clearer, more precise data for sleep studies and more advanced capabilities in data analysis and data management, Grael-4K delivers. With the increasing interest in low frequency and high frequency EEG analysis to discriminate certain sleep disorders and the desire to have more physiologic responses for SpO<sub>2</sub>, nasal pressure and other parameters, digital amplifiers and signal processing should be uncompromising in their design.
- **Somte PSG** is the solution - whether you are looking for an attended sleep studies recorder, or you wish to perform full polysomnography in an unattended, ambulatory setting, or both. Somte PSG is the simplest and most convenient way to meet requirements for full PSG...absolutely anywhere.
- **ProFusion Sleep** Software Suite is the world-class PSG software platform. The latest iteration released in 2020, Version 5 is designed to give you everything you need and more: Clarity, Power, Speed, Quality Assurance, and Great Reports. Profusion Sleep will optimise your laboratory efficiency by improving scoring speed and providing clear, accurate results in exactly the report formats you need. And, because it is fully compatible with the complete Compumedics family of recorders/amplifiers, your sleep program can easily expand into new testing modalities...without having to learn new software or change your report formats. Profusion Sleep software suite offers true flexibility and control of data recording. Comprehensive analysis and reporting lets you handle your data your way - efficiently.
- **ProFusion neXus 360** is a revolution in laboratory management. Built on the proven Profusion neXus platform with more than 15 years of customer use and

thousands of users, Profusion neXus 360 offers the full functionality of Profusion neXus and more, in a fully web-based interface. It provides healthcare professionals with the ability to access data from any device, anytime and anywhere and can be tailored as an on-premise solution managed by you or a cloud-based solution managed by Compumedics. Compumedics' cloud-based infrastructure provides complete data storage and archive capabilities whilst eliminating costly IT support and locally-managed server requirements.

Compumedics listed on the Australian Securities Exchange in 2000. Over the years, Compumedics has received numerous awards, including Australia's Exporter of the Year, and has been recognised as a Top 100 Innovator by both German and Australian governments.

[www.compumedics.com](http://www.compumedics.com)



## **Fisher & Paykel Healthcare**

### ***Evening symposium sponsor***

Fisher & Paykel Healthcare is a leading designer, manufacturer and marketer of products and systems for use in acute and chronic respiratory care, surgery and the treatment of obstructive sleep apnea. Our company's purpose is to improve care and outcomes through inspired and world-leading healthcare solutions.

Our medical devices and technologies are designed to help clinicians around the world deliver the best possible patient care. They enable patients to transition to less-acute care settings, recover more quickly, and avoid more serious conditions. Because of our products and therapies, many patients can be treated in the comfort of their own homes instead of in hospitals. Not only does this make life better for the patient, it reduces costs for the world's healthcare systems.

Product innovation has been the cornerstone of our success since 1969, when our first prototype humidifier was developed. Today, we are still striving to lead the way in the development of medical devices and technologies by continuously improving our products, pioneering new therapies, and changing clinical practice.

We employ more than 5000 people who are based in 39 countries and serve over 120 countries around the world. It is estimated that 16 million patients were treated using our products last year.

<https://www.fphcare.com/au/homecare/myairvo-2/>



## **Aspen Pharmacare Australia**

### ***Challenging aspects of management in paediatric respiratory sleep medicine short course Sponsor***

Aspen Australia commenced operations in Australia and New Zealand in May 2001. It is the largest non-generic supplier of medicines by volume\*^ in Australia.

Aspen Australia is an affiliate of the International Aspen Group, based in South Africa. With over 500 product lines in Australia#, Aspen manufactures, markets and distributes pharmaceutical products in most therapeutic categories. The Aspen range includes Prescription Pharmaceutical brands, Specialty pharmaceutical products, and OTC healthcare.

With a significant manufacturing facility in Australia, Aspen manufactures almost 2 billion tablets, 73 million effervescent sachets and 1500 tonnes of liquids and semi solids every year. This translates to nearly 60 million packs of products which are destined for the Australian and export markets. For more details on specific Aspen products or the extensive range of clinical resources to assist your practice, please visit the Aspen Australia website or the Aspen Xpress app (download from the App store or Google play). Access details for Clinicians and Pharmacists are available from your Aspen representative.

**[www.aspenpharma.com.au](http://www.aspenpharma.com.au)**

\*excludes compounding; ^IQVIA data May 2020

#Australia Dandenong Manufactured and fully purchased

Aspen Australia is comprised of Aspen Asia Pacific Pty Ltd (ABN 75 146 444 484) and its subsidiaries, including Aspen Pharmacare Australia Pty Ltd (ABN 51 096 236 985), Aspen Pharma Pty Ltd (ABN 88 004 118 594), Orphan Holdings Pty Ltd (ABN 50 115 816 209), Orphan Australia Pty Ltd (ABN 11 067 189 342) and Aspen Products Pty Ltd (ABN 17 003 144 170).



## Temple Healthcare

### ***ANZSSA session sponsor***

Temple Healthcare has an unmatched reputation in customer service and takes enormous pride in our product portfolio. It's our products, our obsessive desire to help and our extensive understanding of the field of sleep diagnostics that challenges the status quo.

We are proud to be the exclusive distributor of the **Nox Medical** PSG solutions and **SenTec Transcutaneous CO<sub>2</sub>** Monitor (SDMS).

Nox Medical epitomises the next generation of sleep testing by simplifying the task of performing a sleep study and enhancing patient experience, delivery more secure and precise measurements than ever before. With its small ergonomic design, the Nox products are easily interchangeable between lab to home and your growing service needs.

The SenTec SDMS monitor is the only fully digital TcpCO<sub>2</sub> monitor available, overcoming the limitations of arterial blood gases, end-tidal CO<sub>2</sub>, SpO<sub>2</sub> monitoring and historical barriers of TcpCO<sub>2</sub> monitoring. The SenTec provides easy, accurate, fast, reliable and continuous monitoring of ventilation.

We are excited to announce the release of the next generation HST device, the NOX T3s. The T3s in tandem with the Noxturnal software utilises cutting-edge technology providing fast and efficient analysis of the patients' sleep study. With refined Nox RIP technology, Nox's Body SleepTM estimates sleep stages by processing actigraphy and respiratory data.

Our brands represent innovations in key areas such as ergonomics, robustness, flexibility, miniaturisation and the use of new technology to create the next generation of advanced sleep solutions. Temple Healthcare strives to significantly improve patient outcomes by nurturing partnerships with high value healthcare providers, and to facilitate sustainable, profitable technology transfer between manufacturers and our customers.

[www.templehealthcare.com.au](http://www.templehealthcare.com.au)

1300 162 694



## Zelira Therapeutics

### **Primary Care *session sponsor***

ZELIRA Therapeutics is a leading global biopharmaceutical company with operations in Australia and the US. We are developing and marketing uniquely formulated, clinically validated cannabinoid-based medicines customised to address the unmet therapeutic needs of clinicians and patients in specific conditions, including chronic insomnia and autism.

ZELIRA Therapeutics is committed to becoming a trusted partner to healthcare professionals, patients and carers by delivering the evidence and information they need to feel the same confidence in our proprietary cannabinoid-based medicines as any other pharmaceutical medicine.

ZELIRA Therapeutics is investing in areas of significant unmet need in the areas of insomnia and Autism Spectrum Disorder. We are doing this by:

- Partnering with world-leading researchers and institutions undertaking human clinical trials and pre-clinical research
- Clinically validating all marketed medicines
- Continuing investment in clinical trials and evidence generation to meet regulatory requirements with an ultimate objective of achieving registration across targeted global jurisdictions

[www.zeliratx.com](http://www.zeliratx.com)

