

**CogSleep Centre of Research Excellence for
Optimising Sleep in Brain Ageing and
Neurodegeneration**

Newsletter - December 2020



A message from the CogSleep CIA Prof Sharon Naismith

As 2020 draws to an end, it's fair to say that it's been a very uncertain, tumultuous year for us all, and I sincerely hope you and your families have been keeping as healthy and positive as possible. Despite the strange conditions and changing work environment, the CogSleep team has not slowed in our work and progress, and indeed we have celebrated numerous fantastic achievements over the past months.



Recently in September, we held the first CogSleep Symposium via Zoom. It was a great success and a really wonderful opportunity to connect and collaborate, as well as see the inspiring variety of work being done by so many throughout our network.

Thank you again to all our speakers and chairpersons, as well as everyone who was able to join any of the three mornings over which it ran. I hope you enjoyed the variety of content, and please don't hesitate to email any feedback to cogsleep.cre@sydney.edu.au, so that we can plan for our next event!

Please read on for more details on the Symposium, as well as news on successful grants, publications and media appearances by our CogSleep team.

We also have an update on our fantastic CogSleep Academy as well as our regular 'Research Spotlight' feature.

As always, please send any content for newsletters to our new email address: cogsleep.cre@sydney.edu.au, and follow CogSleep on twitter @cogsleep for all the latest updates if you aren't already.

I hope you enjoy this edition of the CogSleep Newsletter, and wishing you all a Happy New Year and relaxing holiday season!

Warm wishes,
Sharon

News from the Team

Professor Shantha Rajaratnam, CogSleep CI and Deputy Director of the Turner Institute, has

been announced as the new Chair of the [Sleep Health Foundation](#). Shantha has been a member of the Sleep Health Foundation's Board since 2015, and previously served on the Board at the time of its formation, and his appointment is a fantastic achievement.

Lead CogSleep CI **Prof Sharon Naismith** has been recognised with the prestigious Australian Psychological Society award for Distinguished Contribution to Psychological Science. Sharon's work was also recognised within the University of Sydney, as she has been named the 2020 recipient of the Vice-Chancellor's Award for Outstanding Research.

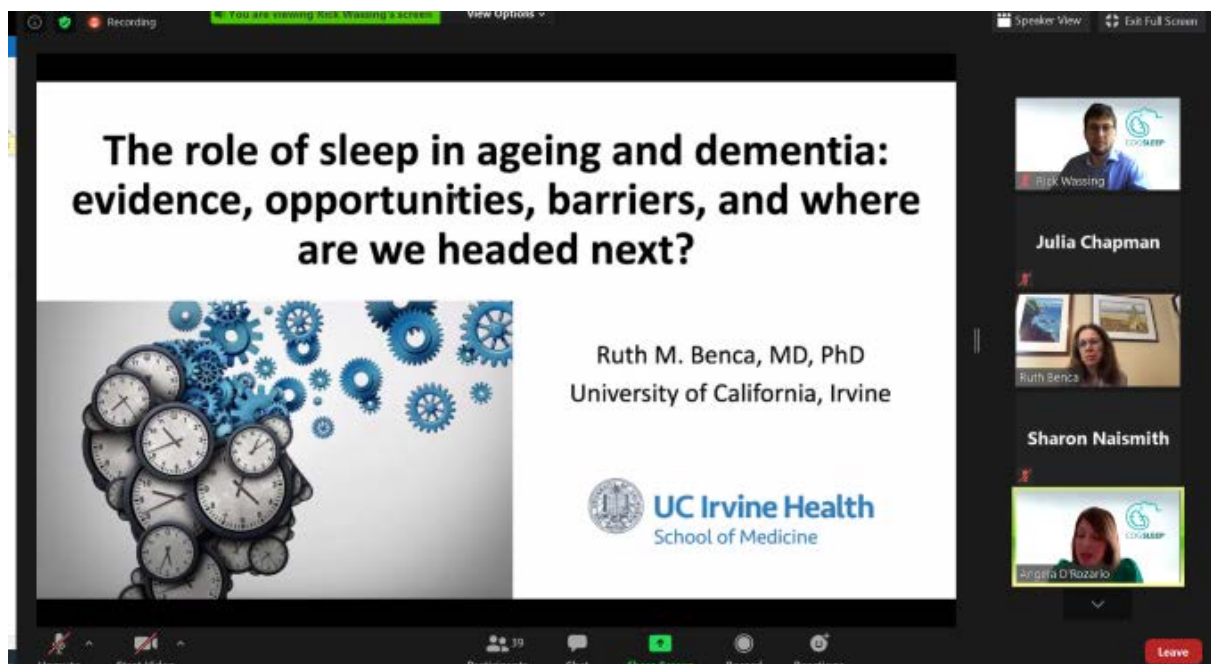
Congratulations also go to **Dr Stephanie Rainey-Smith** on her new appointment at Murdoch University and promotion to Associate Professor.

Very well deserved achievements, congratulations to all!

650 x 60

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CogSleep Symposium



The screenshot shows a Zoom meeting interface. The main content is a presentation slide with the following text:

The role of sleep in ageing and dementia: evidence, opportunities, barriers, and where are we headed next?

Ruth M. Benca, MD, PhD
University of California, Irvine

UC Irvine Health
School of Medicine

The slide features an illustration of a human head profile filled with various gears and clock faces. To the right of the slide, a vertical list of participants is visible, including:

- Rijk Wassing
- Julia Chapman
- Ruth Benca
- Sharon Naismith
- Angela D. Rozzillo

The Zoom interface includes standard controls at the bottom: Mute, Start Video, Participants (39), Chat, Share Screen, Record, and Reactions. A 'Leave' button is located in the bottom right corner.

The first CogSleep Symposium was held virtually over three half days on 16th – 18th September 2020. We had the pleasure to be joined by 20 national and international speakers, together with researchers and clinicians from different disciplines to discuss new initiatives and research developments relating to sleep disturbances in aging and neurodegenerative diseases.

The symposium featured two outstanding keynote presentations. One by **Professor Ruth Benca**

from the University of California in which she highlighted the evidence, barriers and future directions on the role of sleep in aging and dementia. The other was by **Professor Oliver Rawashdeh** from the University of Queensland who offered important insights into translation: chronobiology. The program was also a great showcase of the breadth of sleep research occurring in the aging and neurodegeneration field, spanning across areas of enriched biomarkers, clinical trials, novel technology and data science approaches, new health services and training, as well as strategies for the translation of research into practice.

The symposium also offered an excellent opportunity for research students and ECRs from the CogSleep academy to gather and present their own research. Congratulations go to presentat winner **Dr Jade Murray** and runner-up **Dr Pratishtha Chatterjee!**

We would like to take this opportunity to thank all our speakers for sharing their research and chairs **Dr Angela D’Rozario, Dr Camilla Hoyos, Dr Shantel Duffy, Professor Simon Lewis Jessy Manousakis, Professor Shantha Rajaratnam, and A/Professor Craig Phillips** for facilitating the smooth running of each session. Lastly, we would like to extend our thanks to the organising committee who made the symposium such a tremendous success!

Researcher Spotlight: Dr Helen Yang

We are delighted to have appointed Dr Yue Yang to a key biofluids postdoctoral fellowship with Prof Glenda Halliday. Yue graduated with a bachelor and a master degree of clinical medicine from a first-class medical university in China, after completion of a 7-year program. She has established 2 years of specialized training in neurology, with clinical experience in stroke, vascular dementia, epilepsy and other neurological diseases, and has worked as a resident for 2 years in First-Class Tertiary Hospitals in China.

Yue received her PhD degree at University of New South Wales, and her PhD work assessed neuronal senescence in ageing and age-related neurodegenerative diseases, including Alzheimer’s disease, Parkinson’s disease, Dementia with Lewy bodies, and Multiple system atrophy. She has years of experience, particularly in neuropathology, in a broad range of neurodegenerative diseases. Her research interests include sleep disorders and neurodegenerative diseases, and



her current work aims to understand changes in biofluid profile and develop biomarkers for sleep disorders and neurodegenerative diseases.

Please reach out to Yue if you are interested in discussing collaborative opportunities in this field.

Please see click [here](#) to see a list of Yue's recent publications.

Grants News

Since the last newsletter there have been a number of exciting grants awarded to members of the CogSleep team.

Prof Simon Lewis was part of a team recently awarded a successful ARC Discovery grant for \$444,416, for their work into 'Fine-grained Human Action Recognition with Deep Graph Neural Networks'.

The 2020 CRE Seed grant winners were announced during the CogSleep Symposium, and were awarded as follows;

Prof John Kwok, awarded \$20,000 for his project "Impact of mutations in circadian genes on peripheral transcriptional circadian clocks biomarker".

A/Prof Chris Gordon, awarded \$20,050 for his project "E-coach supported digital sleep therapy for older adults with cognitive impairment - ExCEED Study".

Dr Stephanie Rainey-Smith, awarded \$19,987 for her project "Examining the impact of intensive lifestyle modification on sleep, cognition and dementia biomarkers".

Dr Angela D'Rozario, awarded \$10,000 for her project "Spindle and slow wave coupling in older adults at-risk of dementia".

Professor Robert Adams, awarded \$9,975 for his project "Age and sleep apnea related changes in sleep quantitative EEG brain activity and longitudinal relationship to cognitive function".

Dr Jessy Manousakis, awarded \$9,826 for her project "Circadian biomarkers of neurodegeneration: validation of rest activity and brain pathology biomarkers against melatonin profiles in older adults".

Dr Camilla Hoyos was awarded \$10,000 for her project "Sleep disturbance in MCI: A pilot study of a Cognitive behavioural therapy digital intervention (SUCCEED)".

Dr Hoyos was also recently the recipient of a highly competitive Heart Foundation Future Leader Fellowship, awarded for four years. She will further her research on targeting the heart to optimise healthy brain ageing in different at-risk populations across adulthood.

Congratulations to all for these fantastic achievements, and we look forward to seeing you develop!

In the news

Prof Ron Grunstein's research into the diagnosis and treatment of sleep apnoea in people with Severe Mental Illness was featured on the Sydney Health Partner's website, read more about it [here](#)



Prof Grunstein was also interviewed internationally to discuss the effects of Coronavirus on our sleep - appearing on i24 News; watch [here](#).

Prof Simon Lewis recently appeared on Channel 7's The Morning Show, to discuss the causes, symptoms, and future of Parkinson's Disease - watch his interview [here](#).

Dr Rick Wassing at the Woolcock Institute of Medical Research was featured on Channel 9 news, where he spoke about his team's project looking at resistant vs. vulnerable populations among those with obstructive sleep apnea, and their ultimate goal to help all with OSA live their lives without frustrating side-effects of the disorder. Read more and watch the segment [here](#).

Funding opportunities

The 2020 round of CogSleep Scholarships will open for applications in the coming weeks, and we encourage all to apply. This year there are four scholarships on offer. More detailed information will be provided in the application announcement, so please keep your eye out for this email.

Also stay posted as there will be another Seed grant round as well as two part-time fellowships released in early 2021 – join the CogSleep mailing list and stay posted for more information!

If you wish to join our mailing list to see upcoming opportunities please email cogsleep.cre@sydney.edu.au

Upcoming Events

- The first CogSleep Webinar will be held in March 2021, and will be hosted by our own **Simon Lewis**. The idea of a CogSleep Webinar series was keenly received by those attending the Symposium, and we anticipate it will be a successful way to keep building and connecting our CogSleep network. Further details on the first webinar will be released soon, so please keep an eye out!

Publications

[Prevalences and predictors of mood disturbances in idiopathic REM sleep behaviour disorder.](#)

Chiu NKH, Ehgoetz Martens KA, Mok VCT, Lewis, SJG, Matar E. Journal of Sleep Research 2020 Apr 7;e13040.doi: 10.1111/jsr.13040. Online ahead of print.

[A PERIOD3 variable number tandem repeat polymorphism modulates melatonin treatment response in delayed sleep-wake phase disorder.](#)

Magee M, Sletten TL, Murray JM, Gordon CJ, Lovato N, Bartlett DJ, Kennaway DJ, Lockley SJ, Lack LC, Grunstein RR, Archer SN, Rajaratnem SMW. Journal of Pineal Research, Vol. 69, Issue 4, Nov 2020.

[The Role of Light Sensitivity and Intrinsic Circadian Period in Predicting Individual Circadian Timing.](#)

Stone JE, McGlashan EM, Quin N, Skinner K, Stephenson JJ, Cain SW, Phillips AJK. Journal of Biological Rhythms Oct 2020

[Actigraphy-recorded sleep efficiency and hippocampal volume are related to visual and verbal memory of forgetting in older adults.](#)

Lee A, Lah S, Joplin S, Haroutonian C, Pye J, Mowszowski L, Duffy SL, Naismith SL. Neuropsychol Dev Cogn B Aging Neuropsychol Cogn. 2020 Nov 3:1-23. Online ahead of print
PMID: 33141652

Altered Heart Rate Variability during Sleep in Mild Cognitive Impairment

Kong DX S, Hoyos C, Phillips C, McKinnon A, Lin P, Duffy S, Mowszowski L, Lamonica H, Grunstein R, Naismith SL*, Gordon C* (2020). SLEEP. Accepted 26 October 2020. *joint last authorship

[Fatigue in children with moderate or severe traumatic brain injury compared with children with orthopedic injury: characteristics and associated factors.](#)

Bogdanov S, Brookes N, Epps A, Naismith SL, Teng A, Lah S (2020). Journal of Head Trauma Rehabilitation, accepted July 22, 2020.

To see all the publications so far from CogSleep researchers click [HERE](#).

94 Mallett Street

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