

The Bulletin 441

The Royal Society of New South Wales

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May / June 2020

For Your Diary:

Wednesday 27 May 2020

"COVID-19 and confusion: the story of a nasty but nice viral receptor"

Speaker: Emeritus Professor Eugenie Lumbers AM FAA DistFRSN

Venue: Venue: Click here to access the Zoom webinar. Click here for help in getting started with Zoom.

(For more information, see p. 6)



Patron of The Royal Society of NSW
Her Excellency The Honourable Margaret
Beazley AC QC
Governor of New South Wales

Ideas@theHouse: May 2020

Ten: The Mapping of Colonial Australia

Thursday, 21 May 2020

Presented by Her Excellency the Honourable Margaret Beazley AC QC, Governor of NSW



Emeritus Professor Robert Clancy AM FRSN

See page 3 for more information

Date: Thursday, 21 May 2020, 7pm

Venue: Click here to access the <u>Zoom webinar</u>, which will be open from 6.30pm. Click here for help in <u>getting started with</u>

<u>Zoom</u>

Entry: No charge

Enquiries: RSNSW Secretariat Phone: 9431 8691 or via

email virtualevents@royalsoc.org.au

Society Members and Fellows, and members of the public are welcome

From the President



As I write we are all seeing green shoots from the lifting of the most severe restrictions. That is of course wonderful news. It is great to be able to visit friends and family, even if only in small numbers, while maintaining social distancing. On the other hand, I can't help feeling that in the absence of a coronavirus vaccine it will be a long time before things get "back to normal". How long, I wonder, before it is considered safe to sit down together with friends to listen to a live lecture?

In the face of these challenges, your Council is determined that we must continue to offer an intellectually vigorous and challenging program of events, even though for the foreseeable future they will be necessarily online. In this issue of the Bulletin I think you will find a remarkably rich menu of coming events, including the first ever "Ideas@theHouse". This series is an initiative of our Patron, the Governor of NSW, The Honourable Margaret Beazley AC QC. This series was intended to be held at Government House. Now it will be held at virtual Government House!

I do look for our Members and Fellows to continue to support our events. If you cannot take part at the time, we are working hard to ensure that all events will also be available to view on our YouTube channel. Keep informed through our website at https://royalsoc.org.au. I am very conscious of the uneven way that different people are impacted by the current crisis. For some of us, our personal circumstances, stable finances and good technology mean that the impact is no more than a gentle inconvenience. But for others (and I fear that many of our Members and Fellows might be in this category) there are problems of isolation and loss of income that can have serious mental health consequences. If you are having a difficult time through the crisis, is there any way that the Society can help? Do let me know if there is.

Stay well and stay safe

Ian H. Sloan AO FAA FRSN
President
Royal Society of New South Wales
President@royalsoc.org.au

Ideas@theHouse: May 2020

Ten: The Mapping of Colonial Australia

Emeritus Professor Robert Clancy AM FRSN

The University of Newcastle



Thursday 21 May 2020

Venue: Click here to access the Zoom webinar, which will be open from 6.30pm. Click here for help in getting started with Zoom.

Cost: No charge

About the talk: Maps are documents of history: they tell a story of place in context. The printed map has been available for 500 years—a remarkable coincidence with the story of Terra Australis, the mapping of Australia, and of the transition from mythology to empiricism as Western science took centre stage. The human history of New South Wales pre-dates all this by at least 60,000 years, engraved in rock, and embedded in a social history looking at the stars.

The intent of this talk is to highlight a very small part of the cartographic story, namely that of the colonial period from 1788 to 1901. The story will be told through a cartographic record of change events, covering a century where a "gaol of 1000 souls would become an independent nation with the highest standard of living in the world", and told in the context of the colonial governors of the day — ten from the date of colonisation in 1788 through to responsible government in 1855, and ten from 1855 up to Australian Federation in 1901.

Which governors do you think made the most significant differences during this transition?

Ideas@the house: May 2020

Ten: the Mapping of Colonial Australia (continued)

Emeritus Professor Robert Clancy AM FRSN

The University of Newcastle

About the speaker: *Emeritus Professor Robert Clancy* was the Foundation Professor of Pathology in the University of Newcastle Medical School and a clinical immunologist who undertook research in mucosal immunology and the development of mechanisms to enhance mucosal resistance and control mucosal inflammation. He has a strong involvement in the biotechnology of natural products that maximise mucosal immune competence, protecting against infection, and he maintains a clinic in gastroenterology focused on inflammatory bowel disease.

Professor Clancy has strong, long standing interests in histocartography relating to the discovery and development of Terra Australis, and the history of science and medicine, with a focus on epidemics. He has written five books on histocartography and is a regular speaker on maps—curating exhibitions and writing numerous articles on this topic. Together with his wife, Christine, he run tours in Europe on the history of medicine and pharmacy, and the history of science.

About Ideas@theHouse: In late 2019, Her Excellency the Honourable Margaret Beazley AC QC, Governor of New South Wales and Patron of the Royal Society of NSW, invited representatives of the Society to discuss how the Governor might open Government House to a series of public events based on important and/or influential ideas. Her Excellency's proposal was that the Royal Society of NSW and other organisations might devise a series of lectures, to be held at Government House, and known as Ideas@theHouse on topics of our choice for an invited audience of our Members and Fellows, together with others to be invited by Her Excellency.

The lecture would be followed by a reception hosted by Her Excellency. In January 2020, the Governor accepted three topics proposed by the Society. Since then the social restrictions of COVID-19 have intervened, with the face-to-face presentation and reception having to be replaced by an online webinar followed by a live question and answer session. We look forward to a future when we can enjoy the Governor's hospitality at the House.

From the RSNSW Hunter Branch



Unfortunately, the much-anticipated lectures on "Planetary Health" (Professor Tony Capon) and "New Energy" (Professor Alan Finkel) had to be postponed due to COVID-19 induced lockdown. The branch committee met on April 29th and decided to go 'electronic' for the next two meetings;

- 1) On Wednesday May 27th I will give a talk called "COVID-19 and Confusion: the story of a nasty but nice viral receptor" which will be delivered by the RSNSW's zoom link. The event is scheduled to begin at 5.30 pm.
- 2) On July 29th the University of Newcastle will be hosting the event in conjunction with the Hunter Branch. We have not yet invited a speaker for this meeting.

It is hoped that by October 30th it will be possible for the branch to have a face to face meeting which will be hosted in conjunction with the University of Newcastle. The major event of this meeting will be an address by the Chief Scientist, Professor Alan Finkel on "New Energy". In late November / early December, we are rescheduling Professor Tony Capon's talk on "Planetary Health". It is hoped that from the second half of 2020, we will be able to meet and enjoy not only the intellectual content but also the fellowship of the Society.

Eugenie R Lumbers
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Scientia Professor Emeritus
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Hunter Branch Meeting- 27 May 2020

"COVID-19 and confusion: the story of a nasty but nice viral receptor"



Wednesday 27 May 2020

Venue: Venue: Click here to access the Zoom webinar. Click here for help in getting started with Zoom.

Cost: No charge

Emeritus Professor Eugene Lumbers AM FAA DistFRSN Hunter Medical Research Institute and University of Newcastle

COVID-19 is an infection caused by a coronavirus (SARS-CoV-2). To get into the body it binds to a protein on the surface of the cells of the body's organs by a viral protein spike. These spikes stick out from the surface of the virus giving it a crown-like appearance, hence the name coronavirus. The spike protein binds to an enzyme, ACE2. It is thought that the more ACE2 there is on cell membranes the greater the load of infectious particles there will be to enter cells, i.e., the greater the level of infection.

When the spike protein binds to ACE2 it 'destroys' it. ACE2 protects lung, heart and kidneys from the actions of angiotensin II which activates inflammatory pathways, by removing angiotensin II and converting it to an anti-inflammatory peptide.

SARS-CoV-2 by binding to ACE2, therefore removes its protective effects.

(Continued p7).

Hunter Branch Meeting- 27 May 2020

"COVID-19 and confusion: the story of a nasty but nice viral receptor" (continued)

Recombinant ACE2 can be easily introduced into the body. The question is could ACE2 be used safely to treat COVID-19? Do drugs that lower blood pressure by blocking angiotensin II and also by causing upregulation of ACE2 enhance the severity of COVID-19? Or do these drugs protect against severe tissue damage by suppressing angiotensin II's inflammatory actions? These conflicting actions of ACE2 are causing confusion in the race to manage patients with COVID-19 and to prevent infection.

About the Speaker: Emeritus Professor Eugenie Lumbers is the Honorary Secretary of the Hunter Branch of the RSNSW. She studied medicine at University of Adelaide and subsequently gained a Doctorate in Medicine for her research into the renin-angiotensin system. She was the first woman to be awarded an NHMRC CJ Martin Fellowship and she studied fetal physiology in Oxford where she was a Junior Research Fellow at Wolfson College. Returning to Australia, Eugenie and her husband settled in Sydney where Eugenie was employed at University of NSW. She developed her research on fetal physiology and her team published numerous papers on the fetal and maternal renin-angiotensin systems and their cardiovascular and renal systems. Eugenie was awarded a Doctorate in Science and a personal professorial chair. Subsequently she was the first woman at NSW to be awarded a Scientia Professorship. Eugenie served on numerous university committees as well as committees of the NHMRC, NHF and ARC. She was elected to the University of NSW Council. Eugenie was Head of the School of Physiology and Pharmacology for 9 years. In 2002 she was elected to the Australian Academy of Science and made an Member of the Order of Australia in 2012.

Eugenie retired in 2003 to go sailing. In 2007 she began work at the University of Newcastle where she held an adjunct professorial appointment. She also holds an adjunct appointment with the University of Queensland. After achieving success in gaining funding, Eugenie began a research program into the reproductive tract renin-angiotensin system together with Dr Kirsty Pringle (now Associate Professor). Eugenie is still actively involved in research at the University of Newcastle in the Hunter Medical Research Institute. The team has been developing a research program in ACE2 among other components of the renin-angiotensin system.

Hunter Branch Meeting- Postponed to November 2020

"Planetary Health: Safeguarding Health in the Anthropocene Epoch"



Note: A date will be scheduled in December 2020 Venue: Newcastle City Hall, 290 King Street, Newcastle, NSW 2300

5:00pm for a Hunter Branch Meeting, 5:30pm for the Lecture Cost: General entry, \$15; Student concession, \$5

Professor Tony Capon Monash Sustainable Development Institute, Monash University

Professor Tony Capon directs the Monash Sustainable Development Institute and holds a chair in planetary health in the School of Public Health and Preventive Medicine at Monash University. A public health physician and authority in environmental health and health promotion, his research focuses on urbanisation, sustainable development and human health. He is a former director of the International Institute for Global Health at United Nations University (UNU-IIGH) and has previously held professorial appointments at the University of Sydney and Australian National University. He is a member of the Rockefeller Foundation—Lancet Commission on Planetary Health that published its report Safeguarding human health in the Anthropocene epoch in 2015, and the International Advisory Board for The Lancet Planetary Health.

Now Online

Royal Society of NSW Journal and Proceedings

vol. 152, part 2, 2019

The December 2019 (and latest) issue of the *Journal & Proceedings* is now <u>on-line</u>, the printed version is being mailed out to subscribers. There are **six papers**: three submitted, two commissioned, and one a reprint.

Topics include:

- The fragment of a Hebrew book found in the binding of a C17th book in Fisher Library,
- The science of red meat in NSW,
- The first drawings in the Colony of Botany Bay,
- Measuring the speed of light and how this led to Einstein's breakthroughs,
- An historical review of the development of plastics (polymers), and the psychology of perception in Aboriginal bark paintings.

There are five PhD thesis abstracts, and an obituary of historian Ann Moyal FRSN.

The Proceedings include the **2019 award winners** and the **newly gazetted Fellows of the Society.**

The Royal Society of NSW

"... for the encouragement of studies and investigations in Science Art Literature and Philosophy ..."

Royal Society of NSW

Other News

- Results of recent elections: The Society has recently re-elected Professor Ian Sloan as President as well as three Vice Presidents for 2020 / 2021 including Emeritus Professor Brynn Hibbert, Dr Susan Pond & Ms Judith Wheeldon. John Hardie has been appointed Honorary Librarian and Council members include Dr Ian Bryce, Emeritus Professor Robert Clancy, Ms Virginia Judge, Mr Stuart Midgley, Emeritus Professor Bruce Milthorpe, Ms Nyrie Palmer & Adjunct Professor Robert Whittaker.
- The Royal Society of NSW's YouTube Channel is a new resource for members providing videos of events and lectures. Recent video's published include 'Speaking of Music' by David Hush and the 1282nd OGM and Lecture by Emeritus Professor Ian Sloan.
- Southern Highlands Branch members to keep shared interests in science, the
 arts, literature and philosophy alive in this COVID 19 period of hibernation have
 decided to produce regular and frequent newsletters for group enjoyment. The
 latest edition is available on the Southern Highlands Branch website.
- The Royal Society of NSW is delighted that one of its Fellows, Professor <u>John Shine</u> AC FRS FRSN FAA, has just been elected, in 2020, as a Fellow of the Royal Society of London.



Professor John Shine AC FRS FRSN FAA

News to share?

Feel free to send through relevant news which may be of interest to fellow members, to Bulletin Editor
Tim Humphrey
timh@spatialgroup.com.au

Royal Society of NSW Member Profile:



Emeritus Professor Christina Slade



Royal Society of NSW

Member Profile: Emeritus Professor Christina Slade

- Who: Emeritus Professor Christina Slade has accepted a role as Honorary Chair
 of the Events Committee of the Royal Society of NSW. After many years
 overseas Christina was elected as a Fellow of the Society in 2019.
- Experience: Christina Slade is senior academic leader with experience and networks in the UK, Australia, Europe, the US and Mexico. With expertise in higher education, media regulation, international and UK cultural and creative industries and digital futures, Christina brings strategic change management experience supported by strong analytical skills. She has worked with Boards and senior executive teams on strategic directions, digital futures and government relations. She mobilises her networks across continents to develop effective partnerships.
- Highest profile role: Christina was Vice-Chancellor and Chief Executive, Bath Spa University, 2012-17 where she increased turnover from £50M (2011-12) to over £80M (2017-18), student numbers from 5,500 to 7,500, international students from 1% to 15%, and Post Graduate from 6% to 15%. In this position she oversaw the £120M development of teaching and residential accommodation and net assets growth from £45 to £75 million.
- Academic background: Christina has a PhD in philosophy of language and logic from ANU, a Diploma of Education from the University of New England and qualifications in Spanish French and (very rusty) Arabic. She has led major EU funded research grants and has authored numerous articles, books and given presentations to the media, government and commercial organisations.
- Why I'm involved in the Royal Society of NSW:

"As we approach our 200th anniversary, now more than ever institutions like the Royal Society of NSW, provide a unique forum for ideas - allowing disciplines to come together and putting science and evidenced based approaches to the fore. I'm excited to be involved in organising what will hopefully be some great events over the months ahead. I welcome ideas on this front from fellow members".

Christina Slade

E: christinamslade@outlook.com

Royal Society of NSW

Staff Profile: Wendy Enevoldsen



- Who: Wendy is the Society's new Inaugural Executive Officer
- In the position since: 22 January 2020 (part time)

What's shaped me:

"My childhood was a nomadic one: seven (7) schools in seven (7) years in three (3) countries due to my father being in the Royal NZ Navy. Our time in London, where Dad was attaché to Germany, instilled an appreciation of tradition, diplomacy and a passion for museums and exploration."

My career so far:

"Perhaps unsurprisingly I studied geography (BSc) and then completed a MSc in Spatial Information Systems and public health with a NZ Ministry of Health scholarship. My early public service career was in public health, the later part in corporate functions including being responsible for corporate governance for a NSW government department."

• Why I'm in the role:

"I took leave to complete an Executive Masters in Public Administration funded by the NSW Public Service Commission and upon completion decided I needed a different challenge. The volunteering work I have since undertaken in the arts and disability sectors has been unexpected and enriching. It's a privilege to be the inaugural Executive Officer for a Society with such a distinguished and rich history playing a vital role in the cross-disciplinary advancement of knowledge. My role contributes to a program of operational integration and improvement, helping to lay the foundation for another successful century for the RSNSW beyond 2021."

Contacting Wendy

Wendy Enevoldsen (Executive Officer)

E: execofficer@royalsoc.org.au



Changed your email address?

Let's keep in touch
Please let the office know if your contact details have changed.royalsoc@royalsoc.org.au

RSNSW Coming Events

Date	Event	Speakers	Topics and Presentations	Location
21 May 20	Ideas@ the house	Emeritus Professor Robert Clancy	Ten: the Mapping of Colonial Australia	Government House via Zoom
27 May 20	Hunter Meeting	Emeritus Professor Eugenie Lumbers	"COVID-19 and confusion: the story of a nasty but nice viral receptor"	Zoom
3 Jun 20	Ordinary General Meeting	Professor Elizabeth Elliott	"Drinking for three: Mother, baby and society" The devastating impact of foetal alcohol syndrome	Zoom
27 Jun 20	Annual Dinner	Professor Brian Schmidt	"Education and Evidence in a Post-Truth Post-COVID World"	Zoom
2 Dec 2020	Hunter Meeting	Prof Tony Capon Monash	The University of Newcastle will be hosting the event in conjunction with the Hunter Branch	TBA

Contacts for Your Officer Bearers and Council Members

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