

Royal Society of New South Wales

Hunter Branch Report

A Summary of the first year of operations of the Hunter Branch.

The Hunter Branch of the Royal Society of NSW was launched in October 2019 at a meeting, chaired by the President of the Royal Society of NSW, at which an address by the Chief Scientist of New South Wales was presented.

The Branch Committee had planned to conduct a series of six lectures during 2020, two of which were to be co-badged with the University of Newcastle. However, because of the disruption due to Covid-19, the program was reduced to five events, only the first of which was held face-to-face. Meetings proposed for March and later had to be cancelled, with the program having to be restructured into an online (Zoom webinar) format. A beneficial outcome of this change was the increased availability of the Branch's program to a wider audience through the Royal Society, together with the availability of recorded events on the Society's YouTube channel for convenient, offline consumption.

First event 2020

This was run in association with a symposium on **Mathematics in Industry** (organised by Australian and New Zealand Industrial and Applied Mathematics) in January 2020, convened by Professor Natalie Thamwattana of the University of Newcastle. This event was very successful and was attended by a large audience.

Second Event 2020

The second event was held in May 2020 and was addressed by the Secretary of the Hunter branch, Emeritus Professor Eugenie Lumbers.

She spoke on the pathophysiology of Covid-19 and how it causes damage to the heart and other organs—a result of dysfunction of a well-known system, the renin-angiotensin system. This system is significant in causing tissue and organ damage in high blood pressure and diabetes mellitus.

At the time of the talk there was considerable confusion about the role of this system in acute inflammatory reaction caused by Covid-19. It is interesting to note that a recent report in the Lancet presents prima facie evidence for the hypothesis (Lumbers et al, Front Med, 2020) underlying this presentation (Zoufaly et al, Lancet Respiratory Medicine, published online September 24, 2020).

Third Event 2020

This online event was presented by Prof Pia Ednie-Brown, Professor of Architecture and Chair of Creative Practice Research at the University of Newcastle. She described the personality of the house, "Avery Green", that she was renovating and the indispensable involvement of anthropomorphism in approaching a house as a person. Her experience of working with "Avery Green" has been published as a book chapter titled "A Vital, Architectural Materialism; a House-person's Escape from the Anthropocentric", in *Architectural Materialisms: Nonhuman Creativity*, Maria Voyatsaki (ed), Edinburgh University Press. 2018.

Fourth Event 2020

It was planned that this event would be delivered by Prof Alan Finkel in October, but it was subsequently cancelled due to Covid-19. Therefore, a co-badged meeting, in association with the

University of Newcastle's "Looking Ahead Series", was held on October 27. The lecture was titled "The Engaged University: advancing research and innovation through powerful partnerships".

Prof Janet Nelson (Deputy Vice Chancellor, Research and Innovation) showed us novel technologies being developed at University of Newcastle, including water conservation and new green hydrogen production, powered by solar energy.

She led a discussion on engaging partners in research and innovation in the Hunter region and its application. The various speakers were Ms Morven Cameron, CEO, of Lake Macquarie City Council, which is New South Wales' third largest regional city, Dr Kirsten Molloy, non-Executive Director of HMRI, NRMA and HunterH2O, and Dr Priscilla Tremaine, Research Associate in the School of Engineering at the University of Newcastle.

Of particular interest were the plans by the Lake Macquarie City Council to trial waste collection vehicles powered by hydrogen. The event gave an insight of the University's outreach to the Hunter region.

Fifth Event

This will, again, be held online at 6.00 PM on 2 December 2020. The topic is planetary health, and the speaker is Prof. Tony Capon, Director of the Monash University Sustainable Development Institute. This meeting was originally scheduled for March but was cancelled. Prof Capon's 30-year career of leadership experience spans research education policy and practice. His research focuses on urbanisation sustainable development and human health.

Reports of Activities of the Committee of the Royal Society of NSW Hunter Branch

During 2020, Committee meetings of the Branch have been held in January, April, May, August, September, and October, with the most recent meeting being held on 27 October.

The activities of the Committee have been dominated by the need to rearrange events to cope with limitations imposed by the pandemic. It has also been pursuing an active role in the promotion of its events to local media in the Hunter region, and to the University, as well as to the Royal Society. T

The Hunter Branch has plans to fund a medal that will recognise significant achievements promoting the health and welfare of the Hunter region. This medal will be known as the Hunter Medal.

The President and Secretary of the Royal Society of NSW attended the September meeting of the Hunter Branch and provided information concerning the new Strategic Plan, the review of the Society's Rules, and events planned for 2021. The committee felt that it was essential that the value proposition associated with the Strategic Plan be produced as soon as possible in order that the plan can proceed and promote the Society in the Hunter region.

The October meeting discussed further the Strategic Plan, the Rules revision, and the Hunter Medal. The last committee meeting will be held on December 2, just prior to the Professor Capon's lecture.

Eugenie Lumbers
Secretary, Hunter Branch, RSNSW
30 October 2020