



THE BULLETIN 465

THE ROYAL SOCIETY OF NEW SOUTH WALES

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AUGUST 2022

For Your Diary

- 01 JUL–25 SEP
[*RSNSW Display:*](#)
[*Chau Chak Wing Museum*](#)
- 06 SEP
[*1306th OGM and Open*](#)
[*Lecture*](#)
- 05 OCT
[*1307th OGM and Open*](#)
[*Lecture*](#)
- 03 Nov
[*RSNSW and Learned*](#)
[*Academies Forum 2022*](#)



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

1305TH OGM AND OPEN LECTURE

Marsupials: Their secrets are all in their genes!

Wednesday, 3 August 2022, 6:30 PM



Professor Kathy Belov AO FRSN FAA
Pro-Vice-Chancellor (Global Engagement)
The University of Sydney



Dr Elizabeth Deane FRSN
Education Consultant

See [*page 4*](#) for more information

IDEAS@THEHOUSE

Manufacturing at the Atomic Scale

Thursday, 4 August 2022, 6:30 PM



Michelle Simmons AO FRS DistFRSN FAA FTSE
Scientia Professor, UNSW Sydney

See [*page 5*](#) for more information

From the President

No one in the Society or society at large is being spared what a [recent article](#) in *The Conversation* calls ‘the largest mass casualty event in Australian history’. The authors go on to say ‘And with one in 20 people with COVID still experiencing symptoms three months later, long COVID might even become Australia’s most significant cause of longer-term disability’.

I trust that readers of this Bulletin are not included in these numbers and keeping at bay this and the other winter viruses circulating currently. I managed to become infected with the COVID virus at our 200th Anniversary Dinner. The marvels of modern medicine mitigated the worst manifestations and I recovered fully within two weeks. Thankfully, most of the 274 people who attended the dinner seem to have been unaffected. The [gallery of professional photographs from the Dinner](#) is now available on our website. If you attended, I would be grateful to receive any feedback about the Society and its future endeavours from yourself or your guests.

The COVID-19 pandemic continues to make planning for in person meetings unpredictable. We have been compelled to convert our 3 August 1305th Ordinary General Meeting from in person to online. The Open Lecture on ‘[Marsupials: Their secrets are all in their genes](#)’ will be presented by two Society Fellows, Katherine Belov AO FRSN FAA and Elizabeth Deane FRSN, at the usual time of 6:30 PM. I encourage you to join and prompt others to join this webinar on a subject that is of great importance to Australia — the risk of extinction of many of our iconic species. Belov and Deane are using genetic techniques to help wildlife managers buffer these species against inbreeding, loss of genetic diversity and susceptibility to disease.

The Society’s Council 20 July meeting was also held via Zoom. As the first item on the Agenda, Ms Anne Robinson, Prolegis Lawyers, gave a very informative presentation on Councillors’ governance duties as ‘responsible persons’ under our Act of Incorporation, the Australian Charities and Not-for-Profits Com-

mission (ACNC), general law and some Corporations Act provisions. Also at the meeting, our Webmaster, Lindsay Botten, provided an update on membership. As of 6 July 2022, the Society had 656 active members with (except for 17 Distin-

guished and 6 Honorary/Life Members, who do not pay fees) their subscription paid through to 31 December. Membership of our Branches continues to grow — now 62 in the Hunter, 32 in the Southern Highlands, and 23 in Western NSW.

I thank Lindsay for undertaking the enormous task of rendering the Society’s membership database accurate and searchable. It has now been fully converted to the *Membes* management system. At its 20 July meeting, Council resolved to proceed to degazette Fellows who have remained unfinancial since 2020, and who were listed in the NSW Government Gazette between 2015 and 2020. There are many reasons why some Fellows are no longer financial, including change of circumstances or relocation. Pleasingly, the great majority of members who were financial in 2021 remain so in 2022.

Turning to the future, please note the 3 November date for the 2022 Annual RSNSW and Learned Academies Forum to be held in person at Government House, Sydney, and online via live streaming. Under the theme ‘[Reshaping Australia: Communities in Action](#)’, the Forum will canvass some of the latest research on factors shaping disparities in social, economic and well-being outcomes for Australians, address four key areas — health, education, infrastructure, and the environment — and highlight examples of community collaboration with business, not-for-profit, research, and government organisations to drive meaningful change. These examples meet the need in many communities for practical and actional information and advice that can be understood and implemented immediately. Note that you



(continued)

can take up the opportunity, given the concurrent live streaming, to host a small group anywhere in NSW to watch and discuss the Forum presentations in real time. **Julianne Schultz AM FAHA**, Emeritus Professor, Media and Culture, Griffith University; Chair, The Conversation Media Group, will be our Moderator for the day.

Confirmed speakers are: **Richard Holden FES FASSA** — Professor of Economics at UNSW Business School; President, Academy of the Social Sciences in Australia; **James O'Donnell** — Lecturer, School of Demography and ANU Social Cohesion Grand Challenge, College of Arts and Social Sciences, Australian National University; **Kalinda Griffiths** — Scientia Lecturer, Centre for Big Data Research in Health, University of New South Wales; Research and Education Lead for Aboriginal and Torres Strait Islander Health — Victorian Comprehensive Cancer Centre; **Maree Teesson AC FAHMS** — Professor and Director of The Matilda Centre for Research in Mental Health and Substance Use; NHMRC Leadership Fellow, University of Sydney; **Elizabeth Elliott AM FRSN FAHMS**, Distinguished Professor of Paediatrics and Child Health, University of Sydney; **Sally Redman AO**, CEO Sax Institute Sydney; **Bernie Shakeshaft**, Founder and Director BackTrack Youth Works; **David Schlosberg**, Professor of Environmental Politics and Director, Sydney Environment Institute, University of Sydney; **Angelica Kross**, trainee secondary school teacher and climate activist; **Louise Adams FTSE**, Chief Operating Officer, Aurecon;

Pasi Sahlberg, Professor of Education, Southern Cross University; **Peter Shergold AC FRSN FASSA**, Chancellor, Western Sydney University; **Marcia Langton AO FASSA FTSE**, Distinguished Professor, Melbourne School of Population and Global Health, University of Melbourne; and **Ariadne Vromen FASSA**, Sir John Bunting Chair of Public Administration, Crawford School of Public Policy.

I also refer you to the earlier events to be presented in Sydney or by our Branches in August, September and October, and to Ideas@theHouse coming up very soon on 4 August on 'Manufacturing at the Atomic Scale' presented by **Michelle Simmons AO FRS DistFRSN FAA FTSE**.

Finally, I seek expressions of interest from members who are experienced in media and public relations, integrated communications, writing for media, journalistic techniques, and key message integration. We need you to help to drive attendance at our events and enable them and the Society to achieve greater impact. Please get in touch if you are interested in discussing this opportunity.

We continue to work for the Society and for NSW because we understand the need to enhance authentic and authoritative public discourse on a wide range of topics that are crucial to our future. I look forward to your seeing you in person or online very soon.

Dr Susan M Pond AM FRSN
President, Royal Society of NSW

Marsupials: Their secrets are all in their genes!

Professor Kathy Belov AO
FRSN FAA
Professor of Comparative Genomics
Pro-Vice-Chancellor (Global Engagement)
University of Sydney

Dr Elizabeth Deane FRSN
Education Consultant

Date: Wednesday, 3 August 2022, 6:30 PM

Venue: [Zoom webinar](#)

All are welcome.

Notice

The Society regrets that, due to circumstances beyond its control, the planned event at the State Library of NSW can no longer proceed as a face-to-face event.

Summary

The unique reproductive biology of marsupials has made them a focus of much popular and scientific interest. Much of this public interest and research has highlighted exceptional biological features such as delayed gestation and the extensive period of extrauterine development of the young animal. In this presentation and conversation Kathy Belov and Elizabeth Deane explore the past forty years of research into marsupial immunology, examining the role technology has played in unravelling what was once considered lower levels of immunocompetence and early dependence on nonspecific mechanisms of defence. This conversation will bring into sharp focus the role genomics and proteomics has played in revealing marsupial secrets.



About the speakers

Kathy Belov uses immunogenetics to study immunity and health in Australia's native species. Her research overturned the paradigm that Australian mammals have primitive immune systems and demonstrated they have immune gene complements similar to our own. Using comparative genomics and conservation genetics approaches she has made significant contributions to our understanding of immunity in Tasmanian devil populations which are being decimated by Devil Facial Tumour Disease and koala populations that are under threat due to chlamydia. Her work has directly contributed to government actions and new policy and was integrated into the Save the Devil strategic plan and Wild Devil Recovery program and the NSW koala strategy.

Kathy Belov, Professor of Comparative Genomics at the University of Sydney, is a highly-published researcher whose work has been recognised by fellowships of the Australian Academy of Sciences (2022) and Royal Society of NSW (2019) and awards that include the Australian Academy of Sciences Fenner medal (2014), Crozier Medal by the Genetics Society of Australasia (2013) and the MJD White Medal from the Genetics Society of Australasia (2021). Her contributions were recognised by the awarding of an Officer of the Order of Australia (AO) in recognition of her service as an academic and researcher, especially in comparative genomics.

Elizabeth Deane is a retired academic who now works as an independent higher education consultant to universities and private higher education providers. Although the final years of her academic career were in senior management, her research prior to this was in the area of marsupial immunology and disease with an emphasis on the development of immunocompetence and neonatal protection.

Manufacturing at the Atomic Scale

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



Michelle Simmons AO FRS
DistFRSN FAA FTSE
*Scientia Professor, UNSW
Sydney*
Director, ARC Centre of Excel-
lence (CQC²T)
Founder, Silicon Quantum
Computing



Date: Thursday, 4 August 2022, 6:30 PM
Venue: [Live streaming](#) from Government House
Sydney
Entry: no charge
Enquiries: [via email](#)

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

Summary

Figuring out how to build a quantum computer is one of the great challenges of our time. A quantum computer will bring solutions to a series of high-value computational tasks that remain beyond the reach of classical machines. Such tasks address a growing number of industry use cases in optimisation, machine learning, simulation and cryptography across the logistics, mining, pharmaceutical, finance, agricultural, automotive, communications and defence industries.

However, creating such a device requires exquisite control of computing components at unimaginably small length scales, where enigmatic quantum behaviour dominates. In this talk, I describe that whilst this is enormously challenging and, at the edge of human endeavour, I do not think it impossible. I will describe how we have pioneered a globally unique technology to build electronic devices with atomic precision and how we are now using this capability to design and manufacture atomic-scale components into the circuitry of a quantum computer. I will show the world's first atomically manufactured integrated circuit and discuss how we have used this to perform an analogue quantum simulation of the organic molecule polyacetylene. From this, I will map the path to a commercially useful quantum processor.

About the speaker

Michelle Simmons has pioneered unique technologies to build electronic devices at the atomic scale, pushing the boundaries of global research in classical computing, and opening up the prospect of developing a silicon-based quantum computer: a powerful new form of computing with the potential to transform information processing. Her achievements include the development of the world's smallest transistor, the narrowest conducting wires, 3D atomic electronics, and the first two-qubit gate using atom-based qubits in silicon. Most recently, in June 2022, the startup company SQC, of which she is the founder and director, announced the world's first integrated circuit at the atomic scale, comprising 10 quantum dots, that created a quantum integrated circuit capable of simulating molecular behaviour.

Virus on the march? Military model and metaphor in the COVID-19 pandemic

Professor Warwick Anderson
FRSN FAHA FASSA
FAHMS
Professor of History
University of Sydney



Date: Thursday, 11 August 2022, 6:00–8:00 PM

Venue: Friends Room, Mitchell Building, State Library of NSW, Sydney

Registration: [Registration through Eventbrite](#) is required

Entry: Friends of the Library and members of ANZSHM \$20; Non-members sold out.

All are welcome.

The 2022 Ben Haneman Memorial Lecture by Professor Warwick Anderson is presented by the State Library of NSW Foundation and the Australian and New Zealand Society of the History of Medicine.

Summary

What should a medical historian say when a general calls, asking for advice on a vaccine rollout during the pandemic? For generations, we have heard warnings of the dangers of facile resort to war metaphors in dealing with epidemic disease. But what if public health originally derived from military models, from martial modes of defence against adversaries? What if militarisation is just business as usual? Increasingly, our response to modern crises, whether bushfires, floods, or pandemics, involves calling in the military. But the military metaphors and models that guide our interventions have varied over time and place. Some have worked better than others. Some have been less coercive than others. Medical historians thus can help counsel a sensitive general in search of the lessons of public health's pasts.

About the speaker

Warwick Anderson FRSN FAHA FASSA FAHMS is the Janet Dora Hine Professor of Politics, Governance and Ethics at the Charles Perkins Centre, University of Sydney, and an honorary professor in the School of Population and Global Health, University of Melbourne. A leading historian of medicine and biology, his many publications have won major national and international awards. He established health social science programs at Melbourne, California and Wisconsin, and was visiting professor at Harvard, Princeton, Manchester and Duke. He is an ARC Laureate Fellow and Guggenheim Fellow.



Natural History of the Northeastern Sydney Basin

Date: Wednesday/Thursday, 16–17 November 2022 (oral presentations)

Friday 18 November 2022 (field trip)

Venue: Hornsby RSL Club, 4 High Street, Hornsby (oral presentations),

Kuring-gai Chase National Park, West Head (field trip)

Registration: Register by completing the form in the Circular. Early bird registration closes on 31 August

Entry: Registration and participation charges are listed in the First Circular

Circular: The [First Circular](#) is available from the Linnean Society website

All are welcome.

Summary

Over the past decade the Linnean Society of New South Wales has been active in organising field symposia highlighting aspects of natural history in the Port Macquarie area (2010), Royal National Park (2012), Jenolan Caves (2013), Belubula Valley (2015), Snowy Mountains (2017), the Warrumbungles (2018) and Blue Mountains National Park (2019).

The focus of the 2022 field symposium will be on the Ku-ring-gai Chase National Park north of Sydney and surrounding regions in the Northeastern Sydney Basin, bounded to the north by the Hunter River, the coastline to the east, Sydney Harbour to the south, and extending west as far as the Putty Road on the boundary of Yengo National Park. Much of the area lies within the distinctive lower Triassic Hawkesbury Sandstone outcrop with its spectacular geomorphology and characteristic floral communities, contrasting with those developed on the underlying lower Triassic Narrabeen Group and upper Permian rocks in the Hunter Valley. On the Central Coast large coastal lakes provide important freshwater and brackish water habitats.

Two days of scientific and general interest talks and presentations on current research into the geology and geodiversity, flora and fauna, and other aspects of the natural history of this extensive region will be followed by a day-long field trip exploring aspects of Ku-ring-gai Chase National Park.

Registration and more information

For further information about the logistics, registration arrangements and costs, and responding to the call for presentations, please consult the [First Circular](#) on the Linnean Society website.

From the Archives: The First XI

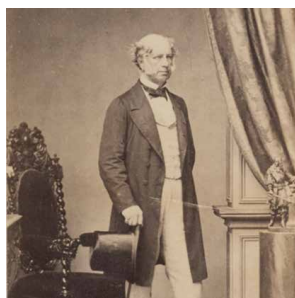
by Bruce Ramage (Secretary)

The tables at the Gala Dinner celebrating 200 years of the Society held in June were each named for a former President or a Senior Vice-President (when the Governor acted as Honorary President). Below are short biographies of the First XI beginning with the Australian Philosophical Society.

All the material gathered for the dinner will be placed in the Society's archives.

Sir Edward Deas Thomson (1800–1879)

Edward Deas Thomson arrived in Sydney in December 1828 to take up the position of clerk to the New South Wales Legislative and Executive Councils. In January 1837 he became Colonial Secretary, a position he held for nearly 20 years. He entered the New South



*Photograph, 1860–72,
Freeman & Co.
Courtesy Mitchell Library,
State Library of NSW*

Wales Legislative Council and was Vice-President of the Executive Council in the Parker ministry. He was an original member of the Senate of The University of Sydney when it was founded in 1850, becoming Vice-Chancellor in 1863, and Chancellor from 1865 until 1878. For some years he was President of the Australian Jockey Club and also served as President of the Australian Club in Sydney.

Sir Edward served two terms as Senior Vice-President from 1850–1855 and 1861–1865.

Sir William Thomas Denison (1804–1871)

Denison was Lieutenant-Governor of Van Diemen's Land from 1847 to 1855, Governor of New South Wales from 1855 to 1861, and Governor of Madras from 1861 to 1866. When he was appointed Governor of New South Wales he became both Governor of New South Wales and 'Governor-General in and over all our Colonies of New South Wales, Van Diemen's

Land, Victoria, South Australia and Western Australia', a role intended to encourage co-operation between the colonies. He inaugurated the bicameral system of representative government in New South Wales. He introduced a bill in the Legislative Council

providing for an annual tax of five shillings on each free adult to provide education for all the colony's 9767 children.

Sir William was President from 1855–1857.

Sir Charles Nicholson (1808–1903)

Sir Charles Nicholson, statesman, landowner, businessman, connoisseur, scholar and physician, arrived in Sydney in 1833. He was prominent among the founders of the Australian Gaslight Co. and was active in the



*Studio portrait, 1859,
Freeman Brothers.
Courtesy Mitchell Library,
State Library of NSW*



*Photograph, 1860s.
Courtesy The University
of Sydney Archives*

movement to encourage immigration from India. He had business interests in land and establishing shipping and railway companies. He was a trustee of both the savings bank and the Australian Museum. In 1849–50 he joined William Charles Wentworth in pressing for the establishment of a university, and in December 1850 was nominated as a member of the original senate of The University of Sydney. As Vice-Provost from 1851 to 1854 and Provost (later Chancellor) from 1854 to 1862, he played an important part in designing Australia's first university.

Sir Charles was Senior Vice-President from 1858–1860.

(continued)

Sir John Young (1807–1876)

The son of a director of the East India Co., Sir John Young, 1st Baron Lisgar, was Governor of New South Wales from 1861 to 1867. Educated at Eton and Oxford and graduating in 1829, he was called to the Bar in 1834.

Described as a gentleman and a scholar, he worked on behalf of the Sydney Ragged Schools, the Society for the Relief of Destitute Children, the Sydney Female Refuge Society, the Female School of Industry and the House of the Good Shepherd. At the end of 1867 Young and his wife left Sydney; he became Governor-General of Canada in 1869. The New South Wales town of Lambing Flat was renamed Young in his honour.

Sir John was Honorary President from 1861–1867.



*Photograph, 1861–67.
Courtesy Mitchell Library,
State Library of NSW*

William Branwhite Clarke (1798–1878)

The Reverend WB Clarke was one of the founders of The Royal Society of New South Wales. A distinguished Sydney clergyman, trustee of the Australian Museum, and Fellow of The Royal Society of London, Clarke embodied the ideal ‘gentleman naturalist’ of the time. Dubbed



*Rev. William Branwhite
Clarke, Giulio Anivitti,
c.1875. The Royal Society
of New South Wales
Collection*

the ‘Father of Australian Geology’ he identified the first local rocks dating from the Silurian period, 400–450 million years ago. Somewhat surprisingly for a cleric, he maintained correspondence with Charles Darwin on the origins of species, both living and in the fossil record. His name lives on in the Society with the Clarke Medal and Memorial Lecture. It has

been awarded annually since 1878 for distinguished research in the natural sciences.

Clarke was Senior Vice-President from 1866–1878.

Earl of Belmore (1835–1913)

Somerset Lowry-Corry became Governor and Commander-in-Chief of New South Wales in January 1868 at a time when the position was not yet just a figure-head, but was still an imperial officer responsible to the British government. Belmore succeeded in having the



*Photograph, c. 1868–72,
Photographer W Bradley.
Courtesy Mitchell Library,
State Library of NSW*

Audit Act 1870 passed, which established the principle that government expenditure had to be authorised by appropriation through both houses of parliament, which had not been the practice until that time. He resigned to protect his wife’s health and to resume his parliamentary career, and left Sydney on 21 February 1872. Belmore Park near Sydney’s Central railway station, Belmore Falls in the New South Wales Morton National Park, and the Sydney suburb of Belmore are named after him.

Lord Belmore was Honorary President from 1868–1871.

Sir Hercules Robinson (1824–1897)

Robinson was born in Ireland. Prior to his appointment as Governor of New South Wales in 1872, he also served as Governor of Ceylon, Hong Kong, Fiji and St. Kitts. While in New South Wales, Robinson was an active promoter of the colony’s interests. He was an accomplished public



*Photograph, 1870–75,
American & Australasian
Photographic Company.
Courtesy Mitchell Library,
State Library of NSW*

(continued)

speaker which endeared him to the general populace, despite criticism from some quarters for what was perceived as a condescending style. Although Robinson had promoted the holding of the Sydney International Exhibition, he was not present to open it, having left a few months previously to continue colonial service, first as Governor of New Zealand, then as High Commissioner to Southern Africa and later as Governor of Cape Colony.

Sir Hercules was Honorary President from 1872–1879.

Lord Loftus (1817–1904)

Augustus William Frederick Spencer Loftus was born in 1817 in England. He was the second son of the Marquis of Ely. He was educated privately, travelled in Europe and went into the diplomatic service, where he served in the British legation in Berlin and in several European courts. He was appointed a Knight Grand Cross of the Order of the Bath in 1866 and was sworn in to the Privy Council in 1868.



Photograph, 1858, Photographer Gustav Schauer. Courtesy National Portrait Gallery, London

In 1879 Loftus was appointed Governor of New South Wales after serving as Britain's Ambassador to the Russian Empire. As the communications link between the Colonial Office in London and Sydney, he wrote on many subjects from sewerage to prison reform.

As Governor of New South Wales, he was Honorary President of the Society in 1879.

John Smith (1821–1885)

Smith was born in Scotland, graduating with an MD from the University of Aberdeen in 1844. He came to Australia in 1847 acting as ship's surgeon on the journey. In 1852 Smith became foundation Professor of Chemistry and Experimental Physics at The Univer-

sity of Sydney. He was Dean of the Faculty of Medicine and became a Fellow of the Senate in 1851, giving public lectures on chemistry. In 1877 he was one of only two members of the Senate to vote to allow women to attend classes at the university.

Smith was concerned with water purity and chaired a Royal Commission on the water supply of Sydney and its suburbs. He was later appointed to the Legislative Council.

Smith was President in 1880 and 1883.

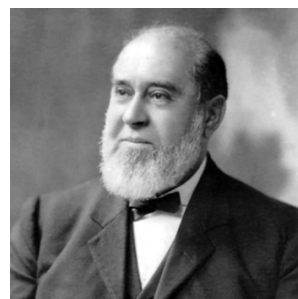
Henry Chamberlain Russell (1836–1907)

Russell was born in West Maitland, New South Wales and was an early graduate of The University of Sydney. He joined the staff of the Sydney Observatory and was appointed Government Astronomer in 1870. He reorganised, refurnished and enlarged the building, and organised an expedition to observe a total eclipse of the sun in 1871, also equipping four tracking stations for the transit of Venus in 1874. His interest in double stars, meant that by 1893 he had discovered 500 new ones. In 1888 he was elected President of the Australasian Association for the Advancement of Science. He also researched the periodicity of weather, inventing various self-recording barometers, thermometers, anemometers, and rain gauges.

Russell was President of the Society in 1881 and 1884.



Stereograph, c. 1860. Courtesy The University of Sydney Archives



Photograph, c. 1898, Photographer John Hubert Newman Freeman & Co. Courtesy Mitchell Library, State Library of NSW

(continued)

Christopher Rolleston (1817–1888)

Rolleston was born in England, and after working for a mercantile house in Liverpool, he came to Sydney purchasing land near Paterson which he farmed with his brother in 1838. The failure of the farm led him to seek



Photograph, late 1800s, copied 1903, NSW Government Printing Office. Courtesy Mitchell Library, State Library of NSW

a government post as a Commissioner for Crown lands. Later he became Private Secretary to the Governor-General, Sir William Denison. Rolleston was then appointed Registrar-General and in 1856 he launched the compulsory registration of births, deaths and marriages. This registration was based upon statistical principles that had been introduced earlier in Victoria by WH Archer. These new registration forms put the records amongst the fullest and most useful in the world.

Rolleston served as Treasurer and Vice-President, and as President in 1882 and 1886.

Publishing Committee news

by John Hardie (Librarian and Chair of the Publishing Committee)

Society's new banners

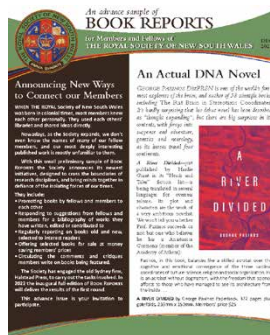
Those members who attended the Society's Bicentennial Gala Dinner on 24 June would have noticed the Society's new banners which have been developed as part of the Society's new branding project. The four related designs were displayed in the foyer of the Chau Chak Wing Museum at the University of Sydney during pre-dinner drinks.



The banners consist of one general design for the whole Society plus one design each for the current three Branches. Together they form one overall integrated design and can be displayed together. Each Branch will have their own banner for display at their meetings and events.

Online book catalogue

Just a reminder that [the Society now has an online book catalogue](#) up and running to provide an outlet and audience for members' books. It is being run in conjunction with Halstead Press. More information can be found on the Society's website.



We encourage all members who have books in print to add their title(s) to the catalogue using the form available from the preceding link. Plans are afoot to produce a separate bibliography of members' books.

Society style and branding guidelines being developed

The Society has engaged a well-respected and experienced graphic designer to develop style and branding guidelines which will be used for all Society publications. It will be presented to the Publishing Committee in the first instance at its next meeting.

History of the Society

Work has restarted on publishing the manuscript of a new book covering the 19th and early 20th century history of the Society. The committee hopes to have the approximately 275-page illustrated volume printed in time for Christmas. Watch this space!

Report: Program Committee

*by Christina Slade (Chair, Program Committee)
and Lindsay Botten (Webmaster)*

The 1304th OGM on 6 July included an address given by Emeritus Professor of Strategic Studies, Australian National University Hugh White on the topic '[This is going to be different: Learning to live with Chinese Power](#)'. This was held face-to-face at the State Library and attracted a very engaged and large audience both face-to-face and on [YouTube](#).

The Royal Society will meet on two successive evenings. On 3 August, the 1305th OGM will include the topic: '[Marsupials: Their secrets are all in their genes](#)!' Professor Kathy Belov AO FRSN FAA and Professor Elizabeth Deane FRSN will present issues followed

by a discussion. On 4 August, *Ideas@theHouse* will feature Professor Michelle Simmons AO on the topic of '[Manufacturing at the Atomic Scale](#)'.

The Program Committee is at present developing the program for 2023. As a committee we are considering the financial costs of face-to-face events. We are all very grateful to our Webmaster Emeritus Professor Lindsay Botten who takes the responsibility not only for the website but also for organising the recording of face-to-face events and editing the YouTube versions.

The event program for the year in [Sydney](#), the [Hunter region](#), the [Southern Highlands](#), and in [Western NSW](#) is available on the Society's website at the preceding links.

Recent events now on YouTube: July 2022

Most face-to-face events and all online events conducted by the Royal Society of NSW are recorded and made available for subsequent viewing on our YouTube channel, youtube.com/royalsocnsw. There was one event, held in July 2022, for which a recording is now available.

On 6 July 2022, Professor Hugh White AO FASSA, Emeritus Professor of Strategic Studies at the Australian National University, delivered an excellent and thought-provoking talk titled '[This is going to be different: Learning to live with Chinese Power](#)' in which he discussed China's rise that is driving the most consequential shift in Australia's international environment since European settlement. So far we are in denial about this, hoping that a reassertion

of American supremacy will contain China's power and preserve the old US-led regional order which has served us so well. But what are the chances of those hopes being realised, and what can we do if they are dashed? How does Australia make its way in an Asia no longer dominated by our Great and Powerful Friends? How we answer that question will do much to define us as a nation. [This presentation \(550 views and counting\) is now available on YouTube.](#)

Recorded Events



youtube.com/royalsocnsw

Report: Southern Highlands Branch

by Anne Wood (Branch Secretary)

The rise of fragility and poor mental health in our youth: where are we going wrong?

Clare Rowe

*Principal Psychologist & Director,
Rowe & Associates*



Clare Rowe attracted an audience of 83 for her presentation to the Southern Highlands Branch. The front row of this large auditorium was occupied almost entirely by teachers, who came prepared to take copious notes. As has been noted before in previous reports of lectures in the Highlands, the composition of our large audiences varies greatly from month to month, depending on the topic to be discussed. This lecture was no exception.

Clare started her lecture by describing how negative emotions and distress are a constant in the human experience. She referred to Shakespeare's portrayals of the human condition where themes of love, hate, vengeance, pride and depression prevail. She said that contemporary novelists and filmmakers rely on the same material. Why then, she asked, is our modern society so eager to describe many of these factors as medical conditions? She believes that the first quarter of the present century will be marked by the steep rise in poor mental health diagnoses. Already one in five Australians is experiencing a mental or behavioural condition each year according to the Bureau of Statistics, with young people aged 16–34 accounting for almost double the reporting of mental distress of the elderly aged 65–85.

It was in the 1990s that the first noble murmurings of reducing the stigma around anxiety and depression were voiced. These murmurings grew louder, resulting later in a change of emphasis of the movement from educating the population about the existing stigma, to one where early intervention and the inclusion of psychology services in the national Medicare scheme occurred. Clare believes that this

was the turning point where the very diagnoses themselves moved to normalisation.

Even the top rating children's TV show at that time which featured 'Word of the Week' to educate their young, often pre-school viewers, selected the word 'anxiety' for one such session! Clare asks the question, 'Do we really want to live in a society where poor mental health is considered normal?'

The latest figures from the Australian Institute of Family Studies reveal that 30% of young people aged 14–17 had considered intentional self-injury and 18% had engaged in actual self-harm. We have now reached the situation where there is an obvious growth in disability provisions for mental health reasons during examination times. For students who cannot cope with the ordeal of the standard examination experience, provision is made for regular breaks, extra time and smaller rooms.

Clare Rowe applauds acceptance by the community of those that are suffering from mental health issues, but believes there is still much work to be done to ensure that the message is loud and clear. Seeking help in times of need is not a weakness. She adds that poor mental health should be an accepted medical condition along with physical ailments, and the path to treatment unobstructed and without persecution.

Justice could never be done to the reporting of Clare's lecture in a space such as this. In closing her thought-provoking presentation, Clare stated that any society that wallows in a culture of diagnosis of emotional neurosis should never be held up as an ideal, just as we should not strive to normalise poor physical health. She added that mislabelling many emotional neuroses as mental illnesses may serve to ignore the great resilience and problem-solving ability humans have within themselves for overcoming adversity.



Archibald 2022: The cream of the crop

by Yves Hernot KNOM FRSN
translation by Audrey McGuire



On Friday 13 May, I attended the Archibald (Portraiture), Wynne (Landscape) and Sulman awards at the Art Gallery of NSW, which is still under construction. In December, a gigantic new annex will be opened there, doubling the size of the museum.

This year, the Archibald Prize enters a new century as it celebrates 101 years of existence. Few are aware that this prize was heavily influenced by the events in Paris' School of Fine Arts and the Salon, when Paris served as the centre of the artistic world at the beginning of the 20th century.

'Bonjour', Mr. Archibald would have said.

Journalist John Feltham Archibald was both a francophile and a francophone. For this reason, he changed his name and became known as Jules François Archibald. At the first ceremony, there was an enormous crowd: people from the artistic world, business, and of course, many artists.

Like every year, the entirety of Australia and its media outlets waited frantically for the announcement of the winners. The laureates of this ceremony are, as you can imagine, celebrated, and sanctified for the rest of their lives. And from this moment forward, they form part of Australian Art History.

This year, you can admire 115 finalist works that have been selected by a jury of very high calibre, including 52 portraits for the Archibald Grand Prize.

The winner of the 2022 Archibald Prize is the artist Blak Douglas. He is 52 years old, of Koori origin in southern New South Wales. Throughout his speech, Douglas proudly spoke of his heritage:

I come from Scottish, Irish, German, and English heritage, as well as the Dhungutti group from the north coast of New South Wales.

Like many artists of this generation, Blak Douglas began his career at the Tap Gallery which I have sponsored for many years. Lesley Dimmick OAM, director of the Tap Gallery, remembers this well. Over the past year, Blak has also been present in my own personal collection of paintings. He is an artist of great and unique talent, already recognised as one of the most influential Australian artists of the 21st century.



Blak Douglas and
Yves Hernot



Under construction painted in the Redfern Studio by Jude Rae, portrait of Dr Saul Griffith (Highly Commended)

Jude Rae and Saul Griffith are Fellows of the Royal Society of NSW. Dr Griffith, an academic, scientist, and researcher, is, in fact, the ex-climate advisor to US president Joe Biden. This painting was Highly Commended by the Archibald Jury.

Another painting that captured my attention is one by the artist Jude Rae, which depicts Dr. Saul Griffith working in his Redfern studio. Like myself, both Jude

(continued)

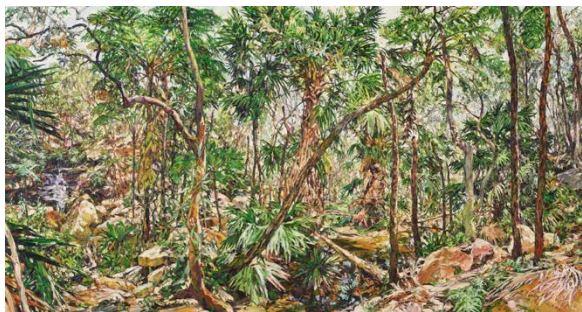


Self-portrait with Ghosts by Wendy Sharp

I also admire the portrait of the journalist Laura Tingle painted by James Powditch, and that of Wendy Sharpe (Self-portrait with Ghosts), a previous winner of the Archibald prize.

Also included is a beautiful work by the artist Nicholas Harding entitled

'Eora'; the winner of the Wynne Prize. Harding also made his debut at the Tap Art Gallery.



Eora by Nicholas Harding (Winner Wynne)

All the finalists of the 2022 Archibald, Wynne and Sulman Prizes will be exhibited at the NSW Art Gallery from 14 June until 28 August 2022.

Afterwards, the 2022 Archibald prize will travel to six exhibition sites beginning in Melbourne, Victoria, before travelling throughout regional NSW, to offer those outside Sydney the possibility to view the finalists of the 2022 Archibald Prize.

Society Fellow receives Australian Museum Lifetime Achievement Award

The Council of the Royal Society of NSW extends its warmest congratulations to Emeritus Professor Bill Sherwin FRSN of UNSW Sydney on being awarded the 2021 Australian Museum Research Institute Lifetime Achievement Award.



Professor William (Bill) Sherwin is a molecular ecologist who has dedicated almost 40 years to scientific research, applying mathematics to genetics and ecology to measure and predict how environmental changes — such as lost habitat, changing climate or the impact of invasive species — affect certain species. His research has encompassed findings such as

pinpointing the likely source of an invasive weed as well as important fieldwork on species such as koalas, wombats, prawns, and penguins.

In accepting the award, Professor Sherwin thanked his research group and colleagues in the Evolution and Ecology Research Centre at UNSW and explained that 'with all this support, I do molecular ecology, something that's a really good conversation-stopper, so I'll explain. Wild animals and plants have always adapted to environmental change, which is now accelerating. Molecular ecologists study and conserve the genetic variation that enables adaptation to change'.

For further details, please see the [news release](#) on the UNSW Sydney website.

Earliest cases of COVID-19 traced to seafood market in Wuhan China

An international team, including Society Fellow Professor **Eddie Holmes FRS FRSN FAA** of the University of Sydney, has determined that the earliest cases of COVID-19 arose in a wholesale fish market in Wuhan, China in December 2019. Their results linked these cases to bats, foxes, and other live mammals infected with the virus being sold in the market either for consumption as meat or for their fur.



The findings, authored by M. Worobey *et al.*, were published in the 26 July 2022 issue of *Science* as '[The Huanan Seafood Wholesale Market in Wuhan was the early epicenter of the COVID-19 pandemic](#)'. It aligns with early reports (later dismissed by senior Chinese officials) that live animals sold at the Huanan Seafood Wholesale Market were the likely source of the pandemic that has claimed at least 6.4 million lives since it first emerged in China nearly three years ago.

Amongst the key findings of this study are:

- The emergence of SARS-CoV-2, the virus that causes COVID-19, can likely be traced to one or more of the 10 to 15 stalls in the market that sold live dogs, rats, porcupines, badgers, hares, foxes, hedgehogs, marmots and Chinese muntjac

(a small deer). Health officials and researchers detected SARS-CoV-2 on animal cages, carts and drainage grates in these venues

- The only areas where the virus was spreading in December 2019 were in neighbourhoods within a half-mile of the market. Previously, some researchers had suggested that the virus was brought into the market from elsewhere in the city and spread among its patrons. Instead, the new findings strongly suggest that the virus originated in the market via live animal sales, and slowly spread from there into nearby neighbourhoods and then the city at large
- Two variants of the SARS-CoV-2 virus were detected at the market. That suggests both variants originated independently at the market and helps confirm the researchers' hypothesis that the early spread of the infection began there. If the virus originated elsewhere, it's more likely that only a single variant would have been found.

The researchers observed that, for the future, public officials should seek a better understanding of the wildlife trade, in China and elsewhere, and promote more comprehensive testing of live animals sold in markets to lower the risk of future pandemics.

The content of this post was sourced from a [University of Utah press release](#).

Journal & Proceedings of the Royal Society of New South Wales

Questions: Between 1822 and 1950, how many papers did the Society publish with 'snake' in their titles? How many papers were written by Lawrence Hargrave?

Thanks to continuing work by Councillor Davina Jackson, there is now a listing, alpha by author, divided into periods, of [all published papers from the Society from 1822 to 1950](#). This enables browser-searching for keywords as well as authors, over this 128-year period.

Note: some links are wrong. If so, go to the [Volume page on the Links page](#).

(Answers: there are 5 papers with 'snake' in their titles, and 24 papers written by Lawrence Hargrave.)



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New award for outstanding writing on social change

The AUD 10,000 Bruce Piasecki and Andrea Masters Award on Business and Society Writing seeks to inspire future generations to become catalysts for a better, more just society. The winner of the award will be announced in September 2022 with an award ceremony to follow.



Applicants must be between 18 and 40 years old and have published at least one work prior to the 31 August application deadline. Submissions can include essays, research papers, books and articles. Topics must be thematically consistent with positive social impact and business. Themes include, but are not limited to, climate change, racial/gender equality,

sustainability, innovation, and new approaches to lessen war and social stresses.

To apply, send your published pieces (link or PDF) and a brief (1- to 2-page) working plan addressing your future writing endeavours and career plans for the next five to 10 years to AWARDS@ahcgroup.com (also cc: rsa@scienceaustralia.org.au). Please contact rsa@scienceaustralia.org.au with any questions you may have.

The award is being offered in collaboration with the Royal Societies of Australia and the Royal Society of New Zealand Te Apārangi.

The award is financed by the Creative Force Foundation started by Bruce Piasecki, the founder of the AHC Group Inc. He is the author of *A New Way to Wealth, 2040: A Fable, Doing More with Less, World Inc.* and *Missing Persons*.

Society Fellows as finalists in the 2022 Australian Museum Eureka Awards

A number of Society Fellows are amongst the [Finalists of the 2022 Australian Museum Eureka Awards](#) — the country's most comprehensive national science awards, honouring excellence across the areas of research and innovation, leadership, science engagement, and school science. Presented annually in partnership with some of the nation's leading scientific institutions, government organisations, universities and corporations, the Eureka Prizes raise the profile of science and science engagement in the community by celebrating outstanding achievements. Amongst the finalists in this year's Prizes are:



- **Professor Julie Cairney** FRSN of the University of Sydney — nominated for the 2022 ANSTO Eureka Prize for Innovative Use of Technology
- **Professor Merlin Crossley** FRSN of UNSW Sydney — nominated for the 2022 UNSW Eureka Prize for Scientific Research

- **Professor Maria Kavallaris** AM FRSN of UNSW Sydney and the Children's Cancer Institute — nominated for the 2022 University of Technology Sydney Eureka Prize for Outstanding Mentor of Young Researchers
- **Professor Richard Kingsford** FRSN of UNSW Sydney, a member of The Environment Recovery Project — nominated for the 2022 Department of Industry, Science, and Resources Eureka Prize for Innovation in Citizen Science
- **Professor Veena Sahajwalla** FRSN FAA FTSE and **Professor Toby Walsh** FRSN FAA of UNSW Sydney — nominated for the 2022 Celestino Eureka Prize for Promoting Understanding of Science

The Awards will be announced at a ceremony to be held at the Australian Museum on the evening of Wednesday 31 August 2022.

List of proposed events for 2022

Kindly note that this is a provisional list and will be subject to change, due to the prevalence of COVID-19 during early 2022. Updates will be reflected in future issues of the Bulletin and on [our website](#).

Date	Event
Wednesday, 3 August 6:30 PM AEST	1305th OGM and Open Lecture Marsupials: the secrets are all in their genes! Professor Kathy Belov AO FRSN, University of Sydney and Dr Elizabeth Deane FRSN
Thursday, 4 August 6:00 PM AEST	Ideas@theHouse: August 2022 Manufacturing at the atomic scale Scientia Professor Michelle Simmons AO FRS DistFRSN FAA FTSE, UNSW Sydney
Wednesday, 7 September 6:30 PM AEST	1306th OGM and Open Lecture Is Fairweather an Australian artist? And does it matter? Claire Roberts, University of Melbourne and Nick Jose, University of Adelaide
Wednesday, 5 October 6:30 PM AEST	1307th OGM and Open Lecture An interactive discussion on the global economic outlook and Australia's place in the world Dr Don Russell and Ms Jane Drake-Brockman
Thursday, 3 November 9:00 PM AEDT	Royal Society of NSW and Learned Societies Annual Forum Reshaping Australia communities in action Richard Holden FES FASSA, UNSW; James O'Donnell, ANU; Kalinda Griffiths, UNSW; Maree Teesson AC FAHMS, University of Sydney; Elizabeth Elliott AM FRSN FAHMS, University of Sydney; Sally Redman AO, CEO Sax Institute Sydney; Bernie Shakeshaft, BackTrack Youth Works; David Schlosberg, University of Sydney; Angelica Kross; Louise Adams FTSE, Aurecon; Pasi Sahlberg Southern Cross University; Peter Shergold AC FRSN FASSA, Western Sydney University; Marcia Langton AO FASSA FTSE, University of Melbourne; Ariadne Vromen FASSA, Crawford School of Public Policy <i>et al.</i>
Wednesday, 23 November 6:30 PM AEDT	1308th OGM and 2021 Pollock Memorial Lecture Most of our universe is missing!: Adventures in the dark side of the cosmos Professor Geraint Lewis FRSN FLSW, University of Sydney
Wednesday, 7 December 6:30 PM AEDT	1309th OGM and Open Lecture Topic: to be advised Scientia Professor Rose Amal AC FRSN FAA FTSE, UNSW Sydney

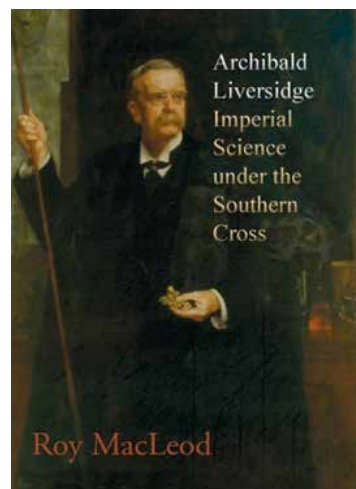
Archibald Liversidge: Imperial Science under the Southern Cross

When Archibald Liversidge first arrived at Sydney University in 1872 as reader in geology and assistant in the laboratory, he had about ten students and two rooms in the main building. In 1874, he became professor of geology and mineralogy; by 1879, he had persuaded the senate to open a faculty of science. He became its first dean in 1882. In 1880, he visited Europe as a trustee of the Australian Museum and his report helped to establish the Industrial, Technological and Sanitary Museum which formed the basis of the present Powerhouse Museum's collection. Liversidge also played a major role in the setting up of the Australasian Association for the Advancement of Science which held its first congress in 1888.

One of his greatest contributions was to science education. He worked tirelessly to secure proper recognition of science in both secondary and tertiary education. In the preface of his book, Professor MacLeod comments: 'Liversidge remained confident that Australia's path would follow the route of the "moving metropolis", strengthened by the bonds that tied Australia to its British heritage. In that heritage lay his life, and through that heritage, flowed the genius of imperial science in New South Wales'. To order your copy, please complete the [MacLeod: Liversidge order form](#) and return it to:

The Royal Society of NSW (Liversidge book)
PO Box 576
Crows Nest NSW 1585
Australia

or contact the Society:
Phone: +61 2 9431 8691
Email: info@royalsoc.org.au



The Society and social media

The Society's presence on social media platforms is slowly but surely growing. Our [Facebook page](#), [Twitter feed](#) and [YouTube channel](#) continue to attract and engage followers and viewers, and we continue to build a repository of online events conducted recently on YouTube. The icons on the right will take the reader to the platforms' respective pages, from where they can follow and subscribe to the Society, and be notified of new content.



Current Council and Office-Bearers

The current Council and office-bearers of the Society are:

Patron	Her Excellency The Honourable Margaret Beazley AC QC, Governor of New South Wales
President	Dr Susan Pond AM FRSN
Vice-President	Ms Judith Wheeldon AM FRSN
Secretary	Mr Bruce Ramage MRSN
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Western NSW Branch Representative	Professor Mark Evans FRSN

Editor: [Jason Antony MRSN](#)

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