

Royal Society OF VICTORIA

Promoting science since 1854

PATRON: The Hon Linda Dessau AC Governor of Victoria

PRESIDENT: Mr David Zerman

This Month's Events...



11th May: Dr Mark Norman "Meeting Conservation and Park Management Needs in a Changing World"



18th May: RSV Field Trip"Explore the Hidden Collections of the Melbourne Museum"



25th **May: Ms Rose Hiscock** "Engaging Young Audiences with Science"

June Advance Notice:

8th June: Panel Discussion & Forum

"Exoplanets and Life in Space"



With Professor Rachel Webster (Chair), Professor Alan Duffy, Dr Katie Mack, Dr Morgan Saletta and Dr Upulie Divisekera

May 2017 Newsletter

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The Royal Society of Victoria Inc. 8 La Trobe Street, Melbourne Victoria 3000 Tel. (03) 9663 5259 rsv.org.au



22nd **June: A W Howitt Lecture with Dr Andrew Tomkins**"Meteorites & Cosmic Dust: Insights to the Early Solar System & Earth"







The Challenges of a Changing World: Conservation & Park Management



Thursday, 11th May 2017 at 7:00pm.

Speaker: Dr Mark Norman

Chief Conservation Scientist & Director of Environment & Science, Parks Victoria

Victoria has one of the strongest protected area systems in Australia. Over 3,000 national parks, reserves and sanctuaries represent the best of the state's natural heritage, from deserts and alps, to grasslands and rainforests, seagrass meadows and wild ocean shores.

With increasing direct human impacts and the many manifestations of climate change, it is a challenging time to conserve, manage and promote 4.2 million hectares of reserves and their inhabitants across the state.

Join Dr Mark Norman, who will discuss the issues and approaches undertaken by Parks Victoria across the themes of knowledge, habitat health, threat management, planning for uncertain futures, and promotion and public support.

About the speaker:

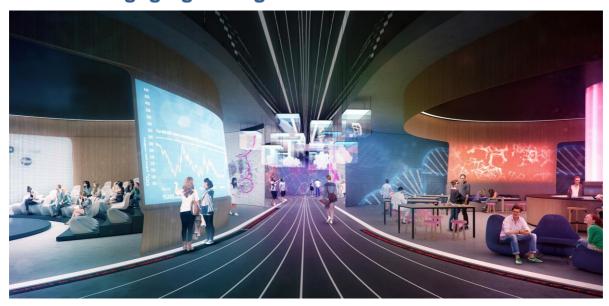


In 2016, Dr Mark Norman joined Parks Victoria as Chief Conservation Scientist and Director of Environment and Science. His prior roles were as Head of Sciences and Senior Curator of Molluscs at Museum Victoria. His research background is in marine biology with extensive experience and interest in conservation, establishment of marine protected areas, biodiversity censuses and science communication, across both terrestrial and aquatic environments.



Register online now at https://rsv.org.au/events/challenges-changing-world/, call or email the RSV office to secure your place: 9663 5259, rsv@rsv.org.au.

Engaging Young Audiences with Science



Thursday, 25th May 2017 at 7:00pm.

Speaker: Rose Hiscock

Inaugural Director, Science Gallery Melbourne

It is estimated that 75% of the future workforce will require STEM skills, however Australia's graduate population is not keeping up. Melbourne's investment in Science Gallery is focussed on a particular challenge: **inspiring young adults to pursue a pathway in STEM** (Science, Technology, Engineering and Mathematics).

In 2020 the University of Melbourne will open an Australian node in the award-winning International Science Gallery network. Embedded into the University's innovation precinct, **Science Gallery Melbourne** will display exhibitions and programs focused on arts and science, derived from the local and global creative and scientific community. Emergent technologies, immersive learning and human interaction will be at the heart of the Science Gallery program, offered within series of contiguous and flexible galleries, theatres, laboratories, workshops and social spaces. Exhibitions will be developed locally and shared through the network and beyond.

With a common focus on 15-25 year olds, Science Gallery nodes are in development with a global network of universities including: the University of Melbourne, Kings College London, Trinity College Dublin, Indian Institute of Science, National Centre for Biological Sciences, Srishti Institute of Art and the University of Venice. Attracting and maintaining the interest of young adults requires nuanced curation. Embedding galleries within the University is a great starting point; however, content generation, policies, practice and methods of engagement must also be appropriate to a young adult market, and this means a new approach to curation. In August 2017, Science Gallery Melbourne will test this new model with a pop up program, provocatively titled "BLOOD: attract & repel."

Join Rose Hiscock, who will discuss the importance of capturing spirit, voice and energy in curating exhibitions and programs for the next generation of scientists and cultural audiences.

About the speaker:



Rose Hiscock is the inaugural Director of Science Gallery Melbourne, a new gallery dedicated to the collision of art and science. Part of the acclaimed international network with eight nodes worldwide, the gallery will be embedded into the University of Melbourne and is scheduled to open in 2020.

Rose has held leadership roles in the museum and cultural sector with a focus on international development. She was previously Director of the Museum of Applied Arts and Sciences (Powerhouse Museum) in Sydney where she led the organisation through significant reform and growth. She was Executive Director Arts Development at the Australia Council of the Arts, where she was responsible

for national and international arts development, including Australia's representation at the Venice Biennale. She has also held commercial and marketing positions at Museum Victoria. Rose is committed to building a vibrant, balanced and accessible arts sector. She is a Board member of Back to Back Theatre, Australia's highly successful company with a full-time ensemble of actors considered to have an intellectual disability, and Chunky Move, one of Australia's premier dance companies.



Register online now at https://rsv.org.au/events/engaging-young-audiences-science/, call or email the RSV office to secure your place: 9663 5259, rsv@rsv.org.au.

From the President



I am exceptionally honoured to have been elected the 71st President of the RSV.

My predecessors since the RSV was established in 1854 include some very notable people who have contributed to the scientific and community

development of Victoria, Australia and internationally. Details of my predecessors can be found on the RSV website: https://rsv.org.au/presidents-of-the-royal-society-of-victoria/.

I think my interest in science dates to October 1957 when I stood in the backyard of our home in Pascoe Vale South and had Sputnik 1 pointed out to me as it moved overhead.

Since then I've been interested in scientific issues and asked many questions and had lots of discussions about science.

My career background has been in journalism, public relations, fundraising and not-for-profit leadership whilst my academic qualifications are in Public Policy, Media, International and Comparative Law and Public Health.

That is probably an unusual journey for an RSV President.

As the newly elected President and a member of the team trusted to guide our organisation a few of my initial priorities include:

- Expanding our regular lecture series to the Victorian community via an RSV YouTube channel.
- Encouraging and involving a more diverse range of people in our activities.
- Making our building "a home" for other Victorian science organizations.

My transition from being an RSV Member to being elected to the Council and then being elected Vice-President and President has been helped considerably by former Presidents Bill Birch and Lynne Selwood.

I look forward to meeting you soon. If, in the meantime, you want to contact me I am available on 0418 346 999 or email me at davidzerman@gmail.com.

Nominations for RSV Membership

Nominations for membership of the Society have been received on behalf of:

Mrs **Linda Louise BENNISON**, Executive Officer & Masters student

Mr **Sandeed Singh CHAUHAN**, Mechanical Engineer

Mr Peter Andrew DEGORSKI, PhD Candidate
Mrs Shanuki Nerandjala Kumari DISSANAYAKE
MUDIYANSALAGE, Community Volunteer
Miss Valerie Gail GIBSON, PhD Candidate
Mr Aron Thomas HILL, PhD candidate
Ms Tanaya Nilesh JOSHI, Student
Ms Tamarah KING, PhD candidate
Mr Liam Samuel MUDGE, Engineering student
Ms Anne Lorraine SARR, Retired

Unless Members request a ballot, they will be considered for election by Council and if elected, will be announced at the Ordinary Meeting of the Royal Society of Victoria to be held on 8th June.

Recently elected members who have not yet signed the Society's membership book are invited to attend the 11th May meeting to be formally welcomed as members. Please inform the office if you plan to attend, so we can prepare your membership certificate for collection.

May Field Trip

Explore the Collections of the Melbourne Museum

Thursday, 18 May 2017 @ 2.00pm

The wonderful collections and displays on show at the Melbourne Museum are but the tip of the iceberg; behind the scenes are curatorial and research collections and teams dedicated to the study, conservation and activation of a vast legacy of specimens, artefacts, devices and cultural objects that range across the many fields of science.



An exclusive offering to members of the Royal Society of Victoria and the Young Scientists of Australia (Melbourne Chapter). Join us for an exciting dive into the rich record of research collections held in trust by Museum Victoria for current and future generations.

Places are **free to members** of both organisations.

Please register online at https://rsv.org.au/events/collections-melbourne-

<u>museum/</u>, call the office on 9663 5259, or email us at rsv@sciencevictoria.org.au.

EPA on the BoM Site

We've had a nostalgic moment with the Environmental Protection Agency taking out a temporary lease with the Society to install pollution monitoring equipment on our former Bureau of Meteorology site! Members and friends will recollect the collection of "bee hive" measuring instruments that dotted our grassy triangle for 107 years up to 2014, measuring Melbourne's weather before relocation to Olympic Park.



From left, EPA technicans Sam Poker and Dane Roger installing and testing the new gear.

In late April, EPA technicians installed a unit to measure particulate matter in the CBD's atmosphere, seeking to capture and measure the incidence of pollutants at the 10 micron (upper respiratory impacts in humans) and 2.5 micron (deep respiratory impacts in humans) scale.

The equipment needs a wide berth from trees and structures to be effective so, with open CBD sites in short supply, our curious little plot is useful to the EPA. The arrangement is tentative, and perhaps temporary, but it's certainly good to have a valuable scientific process operating on site again.

March for Science

22 April 2016



A dangerous, unwashed rabble of RSV and Rationalist Society members congregated on the Society's steps with pitchforks and burning brands before heading to the main March at the State Library. Some struggled a little with the key message.

Amid the various concerns expressed for 'politicising science' and potentially alienating 'displays of scholarly hubris,' the Society pressed ahead with its support for the March for Science on 22 April. The weather forecast was dire and, resplendent in a new batch of RSV T Shirts, we risked being mistaken for a curiously science-enthused cricket team. Undaunted, we took up our tongue-in-cheek placards, donned the RSV whites, met our colleagues from the Rationalist Society of Australia and headed for the State Library, unmolested by the elements.



1:56 PM - 22 Apr 2017



Federal Member for Melbourne Adam Bandt MP with outgoing RSV Science Program Chair, Professor Sandra Rees and, to her right, new RSV Councillor Professor David Walker

It was a terrific turnout by the science community, with numbers estimated between three and four thousand. The atmosphere was celebratory, convivial and even euphoric at times – for many who have felt embattled in their practice, or isolated in their dismay at recent world events, it was empowering to be joined by so many who shared a passion for science and a commitment to its vital place in guiding our species/society/economy/environment/planet (circle one, several or all) to a bright future.



Speakers Professor Fiona Stanley, Dr Upulie Divisekera, Professor Peter Doherty and Dr Barry Jones

Principled and impassioned speeches were delivered by some of our tribal elders: RSV Fellows

Laureate Professor Peter Doherty and Dr Barry Jones, along with the inspiring Professor Fiona Stanley, (another) Nobel Laureate Professor Penny Whetton and rising science communication star Dr Upulie Divisekera (who will feature on our spacethemed panel next month). A particular highlight for me was a moment where Professor Doherty made a cogent point (I forget which), to which the crowd responded with the fervour generally reserved for a rock star, and Peter's face just lit up!



Peter and Upulie

Ultimately, the March was a positive show of unity, a happy moment of grass-roots advocacy and an important community development activity for the science tribes, particularly young adults and families. For the wider public, the March displayed scientists and supporters as living, breathing human beings who value the scientific method and care about the world we will leave behind for our successors and descendants.

Dr Krystal Evans



Thanks to @RoyalSocietyVic for supporting

So much for the rain - sun-dappled RSV Councillors Nicola Williams, Bill Birch and Peter Baines in their RSV whites

In terms of outcomes, it was particularly pleasing to see the subsequent editorial support forthcoming in the Sunday Age on 30 April, titled "we need science, not more hot air." Congratulations to the Melbourne organisers, particularly Kate Ferris, Luke James, Adam Ford, David Urbinder and the amazing Dr Krystal Evans.



Science storms Parliament, demands tasty snacks

The Royal Society of Victoria has qualified the support provided to the March in a position statement published online at



https://rsv.org.au/rsv-support-march-science-melbourne/. We will be meeting with organisers to review the day and determine an approach to future activity.

Mike Flattley

RSV T-shirts

For all members great and small – we have a few items for your sartorial indulgence in each size left over from the March, so if you'd like to show your Science Pride at the gym (of course you do), these handsome garments are available from the Society's front office for \$25 apiece.



Interacting with Eucalypts

Thanks once again to our friends at Eucalypt Australia, The Tree Projects, FGB Natural Products and Magnet Galleries for mounting a gorgeous photographic exhibition in the Burke & Wills and Phillip Law Rooms at the start of April. Both rooms

have brightened considerably with a turn-over of materials and we aim to keep refreshing displays in the coming months.

The Tree Projects' exhibition featured a range of images, the centrepiece being a stunning, enormous, composite photograph developed and compiled by project leaders Dr Jen Sanger and Steve Pearce. The image featured "Gandalf's Staff," a magnificent Tasmanian mountain ash and one of the tallest flowering plants in the world.



The Tree Projects' Dr Jen Sanger with newly elected RSV Councillor John Link. *Photo: Michael Silver, Magnet Galleries*

The Tree Projects focusses on communicating the true scale of trees, promoting canopy habitat exploration and broader interaction by people with forest ecologies.



Gandalf's Staff in the Burke & Wills Room- a closer inspection reveals many human figures in the boughs.

Meanwhile, the FGB exhibition in the neighbouring Phillip Law Room focussed on the legacy of eucalyptus oil distillation from Mallee species in Victoria's north-west. Our Immediate Past President, Dr Bill Birch and I were fortunate to visit

the Eucalyptus Distillery Museum and inspect the lovely old (functioning) Bosisto distillery in the bush up beyond Inglewood late last year, so it was a pleasure to welcome the company and its enduring legacy to the Society's premises.



Bosisto's "Parrot Brand" among displays in the Phillip Law Room

The "B" in FGB refers to "Bosisto," the iconic eucalyptus oil brand founded by chemist and Victorian parliamentarian Joseph Bosisto, whose lifelong friendship with renowned botanist and 1859 RSV President Dr Ferdinand Mueller helped drive the successful commercialisation of eucalypt products. Bosisto's 1882 partnership with Alfred Felton and Frederick Grimwade added the "F" and "G" to the company name.



FGB Natural Products CEO Tegan Abbott *Photo: Michael Silver, Magnet Galleries*

An excellent presentation from CEO Tegan Abbott at the launch on 31 March revealed something of the FGB company's remarkable aspirations and partnerships with the Victorian science community.

Thanks to all for contributing to a gorgeous exhibition.



Eucalypt Australia CEO Bram Mason launches the exhibition on 31 March. Photo: *Michael Silver, Magnet Galleries*

The exhibition has now moved on, but we're delighted to have items on display from the Bob Brown Foundation's environmental arts project "Tarkine in Motion" for our members and clients to enjoy. Our particular thanks to Bram Mason for activating his contacts to enliven our rooms with such invigorating material! Our sinuses have never felt clearer.

Mike Flattley

AfroX – the New Conventional



RSV member Dr George Williams Mbogo presents on his remarkable journey from poverty in Uganda to opportunities in Australia for he and "partner in crime," wife and fellow RSV member Sheila Nankoberanyi. A funny and bittersweet tale from an increasingly accomplished pharmaceutical scientist.



The team from City LLEN, from left: Claire Mance, Louise Smith, Celia Tran.

On 6 April we hosted a remarkable meeting for the **Afro-Australian Student Organisation** (AASO) in partnership with the Capital City Local Learning & Employment Network (City LLEN).



The Hon Robin Scott MP, Victorian Minister for Multicultural Affairs welcomes participants and reiterates Victoria's bipartisan support for maintaining the integrity of the federal Racial Discrimination Act (to acclaim)

Loosely modelled on the "TED talk" format, we heard from four remarkable young Australians of African heritage who have achieved success in fields of endeavour that the young audience members, many of whom have grown up in first-generation migrant households, might not have considered or determined to be within reach.



Most capably chaired by AASO president Amelia Forson, the speakers included Western Australia's Young Person of the Year Abdullahi Alim (a digital innovator and Director of the MYHACK migrant youth coding initiative), spoken word poet and freelance writer Manal Younus, pharmaceutical scientist and RSV member Dr George Williams Mbogo and Sarah Agboola, a board member of the Foundation for Young Australians and successful social enterprise start-up founder.



Abdullahi Alim's impressive message: "There is no grandeur in aspiring to be the first in your community to succeed. Honour is in ensuring you're not the last."

A particular treat was in store at the top of the evening, with mechanical engineer and charismatic ABC presenter Yassmin Abdel-Magied presenting on "putting yourself out there," relating an empowering and frequently hilarious story of seeking success in the UK mechanical engineering world as an Australian woman of African heritage. One message was particular clear: transform your difference from others into an advantage! It helps you to stand out from the crowd in a competitive job market, as people are naturally curious.



The remarkable Yassmin Abdel-Magied addresses a very warm crowd

The night was solid inspiration from beginning to end, with a warm community of bright young people floating out on a cloud, full of delicious African cuisine from the Sorghum Sisters – congratulations

to all the AASO organisers for pulling together such an outstanding evening!



2016 Annual General Meeting & Induction of our 2017 Fellow

The 2016 Annual General Meeting (yes, held in 2017! All part of the exquisite confusion of a calendar year-based financial regime) was a busy affair with 93 members registered to attend and many more joining us for the lecture from Professor Peter Doherty AC that followed.

In the best spirit of an AGM, it was a straightforward affair as outgoing President **Dr William Birch AM** outlined the achievements of 2016 and outgoing Treasurer **Norman Kennedy** canvassed the financial performance and status of the Society. The Society's 2016 Annual Report is available to view online from https://rsv.org.au/2016-rsv-annual-report-members-circular/



New RSV President David Zerman steps upinspired by #science as a Pascoe Vale boy watching #Sputnik overhead #1957



6:24 PM - 27 Apr 2017

We heard a most eloquent commencement speech from incoming President **David Zerman**, who graciously thanked all Councillors (new, continuing and outgoing) for their outstanding service to the Society and the Victorian science community. Certificates of Appreciation were awarded to Bill Birch and outgoing Immediate Past President **Professor Lynne Selwood**, whose term on Council spanned 13 years and was distinguished by her term as the Society's President from 2010 to 2013; the first (but not the last!) woman to hold the high office at the RSV.

2017 RSV Fellow: Laureate Professor Peter Doherty AC

Following the AGM and a convivial break for food and drink, Society members and guests were delighted to welcome and induct Professor Peter Doherty AC as our 2017 Fellow. Peter is well known in the science community as a vigorous advocate for the role of science in society and a proponent of the scientific method. He is celebrated for his outstanding achievement in the field of infection control and immunology, recognised through the award of the Nobel Prize for Medicine or Physiology in 1996.

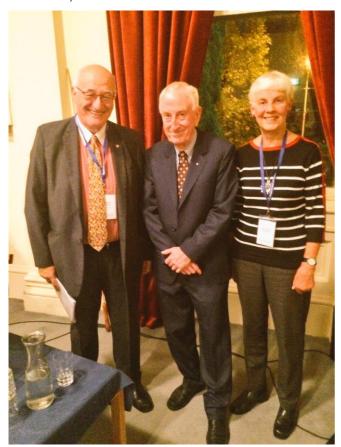


Professor Peter Doherty AC accepts his Certificate of Fellowship from Immediate Past President Bill Birch

The presence of a Nobel Laureate was too good to pass up, and we took the opportunity to induct 16 excited new members with Professor Doherty! A very warm welcome to Colin Abbott, Sandy Chauhan, Jerry Courvisanos, Shanu Dissanayake, Alan Duffy, Biruh Gebretsadik, Aruna Hewa, Arjumand Khan, Milosh lee, Winshon Lozada Restrepo, Marija Pavela, Suranji Dewage, Imen Saidi, Tim Thompson, Jose Villarreal Diaz and Carolina Zuluaga. If you're a new member and yet to sign in, don't worry — our meetings are twice monthly. Just let us know if you plan to join us and we'll have your welcome pack ready for you.

Look out for (from left) Shanu, Winshon, Tim, Milosh, Colin, Marija, Suranji, Carolina, Alan, Jose and Jerry at your next RSV event!

With our Fellow and new members all safely inducted, Professor Doherty then delivered a rousing exploration of his scientific work and a farranging exploration of the status of science in society, particularly in our worrying 'post-truth' era of US leadership. Titled "The Challenges Facing Us," Peter's talk touched on many of the concerns held by members of the Society, and generously answered many of our niggling questions on a host of diverse and interesting subjects. A wonderful evening of exploration and discussion, with an eloquent vote of thanks from our new Vice-President, Nicola Williams.



David Zerman, Peter Doherty and Nicola Williams

Science Prizes, Awards & Fellowships

Young Scientist Research Prizes



2014 Finalists with Professor Sandra Rees

Prizes across four categories of science are available to doctoral candidates who have completed at least three years of their PhD (or equivalent). With four first prizes valued at \$1000 each, and an opportunity to present your research work to Victoria's oldest learned society, you should consider your application today!

Eligibility, guidelines and application procedures are all available from https://rsv.org.au/awards-and-prizes/young-scientist-research-prizes/.

Applicants should nominate themselves. Submissions for the Young Scientists Research Prizes close at 5pm on 31 May 2017 – we welcome your interest.

Grateful thanks are due to Mr Colin Hue, Professor David Walker, Dr Mark Williams, Dr Tom Darragh, Mrs Nicola Williams, Dr Mike Williams, Dr Doug McCann and Trish Conwell for volunteering to run our car park fundraiser during the Melbourne International Flower and Garden Show earlier this month, which helped us to raise \$3,350 in support of these Prizes.

RSV Medal for Excellence in Scientific Research

Nominations are invited for the Royal Society of Victoria's prestigious Medal for Excellence in Scientific Research 2017 in Category I: Biological Sciences (non-human).

This category includes research in the disciplines of Agriculture, Biochemistry, Botany, Cell Biology, Ecology, Forestry, Zoology, and related areas of non-human biological sciences.

Award criteria: The award of the medal is based on demonstration of the candidate's excellence and

leadership in scientific research. The candidate's research work shall have been carried out in Australia (including its territories), or on Australia, with preference for work done in Victoria, or on Victoria.



Professor Lloyd Hollenberg receives the 2016 Research Medal from Victoria's Lead Scientist, Dr Amanda Caples.

Nominations close **31 July, 2017**. Full details on criteria and eligibility are available from https://rsv.org.au/awards-and-prizes/research-medal/.

Victoria Prize for Science and Innovation



The Victoria Prize for Science and Innovation celebrates leadership, determination and creativity, highlighting the many ways in which research and development of international significance are

conducted in Victoria.

Veski are seeking leading Victorian scientists and researchers who have made, or have the potential to make, a significant scientific discovery or technological innovation. If you know someone who fits this description, nominate them for the **2017 Victoria Prize for Science & Innovation** valued at \$50,000.

Learn more at https://www.veski.org.au/vicprize-criteria.

Victoria Fellowships



The Victoria Fellowships recognise the important role of innovation in Victoria's economic future and the need for Victorians to be skilled in science, technology, engineering and mathematics.

Are you one of Victoria's emerging scientists or researchers? Would a grant to support an overseas study mission further your research career or help develop an innovative idea? If so, apply for a 2017 **Victoria Fellowship** valued at up to \$18,000.

Victoria Fellowships provide a travel grant to undertake a short-term overseas study mission to assist in developing a commercial idea; undertaking specialist training; or career development not available in Australia. Additionally, Fellows can apply for the Australian French Association for Science and Technology (AFAS) Associate Award valued at up to \$5,000.

Download the application guide, application form and referee report at https://www.veski.org.au/vicfellow-criteria.

The Ellery Theatre Project



This year we embark on an ambitious project to upgrade our lecture theatre facilities with the requisite audio-visual and networking capabilities to bring some of our wonderful events to the wider community through a dedicated YouTube channel and network services to connect our theatre and members with regional facilities and audiences.

We've established technology needs, gathered quotations and set a project budget that balances management, labour and equipment costs. From this, it is plain we cannot achieve the project's goals without significant assistance from philanthropic foundations.

In making grant submissions, it will be important for the Society to demonstrate the commitment of its own fundraising efforts. Accordingly, we will be embarking on a fundraising drive with a goal of \$50,000, a quarter of the project's total cost.

With 600 active members, the Society could reach its goal with as little as \$100 donation per member. However, we quite understand not all members will have this capacity.

More details will be forthcoming in the month ahead, but as we approach the end of the financial year, we ask all members to consider making a tax-deductible donation to the Society in support of the Ellery Theatre Project to help us share our passion for science with the wider Victorian community.