

2019

GRADUATION CEREMONIES

THE UNIVERSITY OF ADELAIDE



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of ADELAIDE



CHANCELLOR'S

Welcome

On behalf of the University of Adelaide may I offer sincere congratulations to you, our new graduates.

You have joined a distinguished community of University of Adelaide alumni that spans the globe.

As a graduate of the University of Adelaide you hold a degree that is recognised and valued around the world. Our graduates have gone on to be pioneers and leaders in many fields – from science, medicine and engineering, to law, the social sciences and the performing arts. They have won Nobel Prizes, distinguished themselves in politics and the arts, and helped to improve the lives and wellbeing of countless communities.

The University of Adelaide is committed to providing an inspiring university experience and producing talented and skilled graduates. I hope that your skills and the friendships that you have made will endure throughout your life.

You should be proud today of your achievement in completing your studies, which is the first step on what I trust will be a satisfying and exciting career.

I would also take this opportunity, on behalf of the University, to thank those who have supported you and, in many cases, have made it possible for you to be here today.

You will always remember the University of Adelaide, and I hope you will consider it a significant part of your life, not just the past few years while studying, and not just today but forever. I encourage you to join our network of alumni and enjoy the benefits of a long association with your University.

My congratulations to you all.

Rear Admiral the Honourable Kevin Scarce
AC CSC RAN (Rtd)
Chancellor





Message from the
**VICE-CHANCELLOR
AND PRESIDENT**

Congratulations on graduating from
one of Australia's leading universities.

This ceremony marks the culmination of years of study that now place you into lifelong membership of the University of Adelaide alumni – a group spread across all corners of the globe.

And you follow in the footsteps of extraordinary individuals, including some who have redefined the world as we know it, and many others who are changing their communities for the better each day. Your University of Adelaide degree will open doors to new, transformational opportunities.

Today is about celebrating your achievements with family, friends, members of staff and fellow graduates. I strongly encourage you to maintain those professional connections you have made here: many of them will stay with you for life.

Use your knowledge wisely, be bold and generous in the way you share ideas with others, and always be open to learning.

Well done: you go forward today with the warmest wishes of the University of Adelaide community.

Professor Peter Rathjen
BSc (Hons) (Adel), DPhil (Oxon), Hon DLitt (Tas)
Vice-Chancellor and President

The University of Adelaide GRADUATION TRADITIONS

ACKNOWLEDGEMENT OF COUNTRY

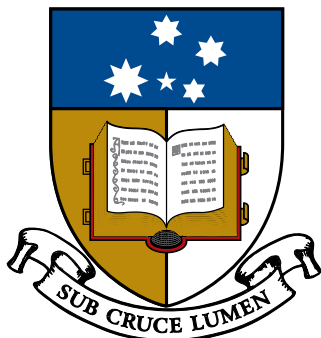
Ngadlurlu Kurna miyurna tampinhi.
Parna yarta mathanya Wama Tarntanyaku.

University of Adelaide Kurna yartangka yuwanthi – Tarntanyangga (North Terrace), Waitengga, Thebartonilla, Roseworthyngga kuma. (Lit. the University of Adelaide stands on Kurna land in Adelaide (North Terrace, Waite, Thebarton and Roseworthy.)

We acknowledge the Kurna people past and present, the original custodians of the Adelaide plains and the land on which the University of Adelaide campuses are built.

COAT OF ARMS

The University of Adelaide’s coat of arms was granted to the University by the College of Arms, London, in 1925. It is the official symbol of the University and the stamp which ratifies every degree parchment bestowed by the University.



The crest or shield displays an open book and five stars; one of eight, two of seven, one of six and one of five points – representing the Southern Cross. A scroll containing the University’s Latin motto sits directly below the shield; Sub Cruce Lumen, meaning ‘The light (of learning) under the (Southern) Cross’.

BONYTHON HALL

Bonython Hall is the University of Adelaide’s “great hall”. It was built in the years of 1933-1936 using a generous donation of over £50,000 from renowned public benefactor Sir John Langdon Bonython.

Planned construction of Bonython Hall was surrounded in controversy. Colonel William Light, Surveyor-General for the City of Adelaide, had an original vision to extend Pulteney Street north towards North Adelaide. The Adelaide City Council was keen to see his plans carried out.

Following much debate, it was City Alderman and lawyer George McEwin who was able to convince the City Council of the University’s master plan and evolving architectural beauty. Further, he pointed out that the City Council had no legal prerogative to construct roads on the private property of the University.

Consequently construction of the great hall began. This proved a critical juncture in the University’s history - resulting in the University of Adelaide expanding to become one of the most picturesque campuses in the country today.



Today, Bonython Hall is home to all onshore graduation ceremonies and a number of official University events, including the annual Carols on Campus event in December.

ABOUT THE ORGAN

The organ in Bonython Hall was installed in 2002. Made in England to a tonal design by the leading Dutch firm Johannus Orgelbouw, it uses custom-built speakers to reproduce digital recordings of individual organ pipes with the acoustic qualities of a piped instrument. The four manual instrument is the largest of its type in Australia.

UNIVERSITY MACE

Thousands of years ago the Mace, a heavy club weighted at one end, was used as a blunt weapon in battle. In the sixteenth century the Mace came to be used more ceremonially – representing a symbol of protection of the King. Today, the Mace is celebrated as a symbol and warrant of office, particularly of royal or ecclesiastical office, and of institutions deriving authority from the Crown or Church.

The University of Adelaide Mace was designed by Mr I. Milward Grey of the School of Fine Arts, North Adelaide, and was made under his personal supervision by an Adelaide firm of silversmiths.

The Mace is 24 inches in length and is made of silver gilt throughout. Seventy-three ounces, just over 2kg, of metal was used in its manufacture. The Mace head forms an orb, representing the world, and features a book, a symbol of learning, and a design of gum leaves on matted ground. On either side of the orb, the University's Coat of Arms is featured along with the motto: *Sub Cruce Lumen*.

The University Mace was first carried by President of the Students Council, K H Boykett, at a Jubilee procession at St Peter's Cathedral in 1926, marking the 50th anniversary since classes first commenced.

The traditional role of the Mace Bearer in the University of Adelaide graduation ceremony is to protect the Chancellor, meaning the bearer of the Mace always precedes the Chancellor in the academic procession.



ACADEMIC DRESS

Academic dress, including the full-length robe, hood and classical headwear, dates back to the medieval 12th and 13th centuries in Europe when universities, as we know them today, were developing.

The regalia were originally worn daily by university scholars for reasons of warmth and to reflect their status in society. The sense of purpose and propriety evoked by formal academic dress has ensured the tradition has been preserved over the centuries.

In contemporary times, academic dress is largely reserved for graduation ceremonies and formal university events.

Gown

University of Adelaide graduates wear black gowns in the Cambridge style, with the exception of:

- Professional Doctorate and PhD candidates whose gowns are black and faced with scarlet
- Higher Doctorate and Doctor of the University candidates who wear scarlet gowns faced respectively with the colour of their discipline or ultramarine blue.

Hood

Professional Certificate and Sub-bachelor graduates do not wear a hood.

Other graduates wear a black hood that displays a colour representative of their discipline area, except that:

- Postgraduate coursework candidates wear a black hood lined in white
- Research masters wear a black hood lined in scarlet
- PhD, Higher Doctorate and Doctor of the University candidates wear a scarlet hood lined in scarlet.

Headwear

Graduates receiving a Professional Certificate, Sub-bachelor Certificate or Diploma, Bachelor, Honours, Graduate Certificate or Diploma or Masters qualification wear a black trencher cap or mortarboard.

Graduates receiving a Professional Doctorate, PhD, Higher Doctorate, Doctor of Medicine or a Doctor of the University wear a bonnet of black velvet.



*Creative Arts
and Architecture*
Cendre Green



Business
Helvetia Blue



*Engineering and related
technologies*
True Purple



Health Sciences
Eosin Pink



*Natural and
Physical Sciences*
Primuline Yellow



*Society, Culture
and Education*
Pale Violet Grey





Information for GUESTS

The following information is provided to ensure the comfort, safety and enjoyment of everyone attending the ceremony. Please take a moment to read before the ceremony commences.

GENERAL

Toilets are located at the entrance to the hall, downstairs from the foyer.

A water cooler for your use can also be found in the foyer.

Please supervise babies and young children at all times. If they are disturbing other guests, please take the opportunity to relocate to the foyer.

Please switch off or silence mobile phones for the duration of the ceremony.

APPLAUSE

Guests are invited to applaud each graduate as they are presented on stage.

PHOTOGRAPHY

Guests are welcome to take photographs during the ceremony. However, you are requested not to disrupt the ceremony by leaving your seat or using flash photography.

Professional photographers will take a photograph of each graduate as they are presented on stage. These photographs will be available immediately after the ceremony from GFP Graduations, who will be temporarily located on the Goodman Lawns.

Alternatively graduates can order their stage photos online after the ceremony.

SAFETY AND EMERGENCY

For safety reasons guests may not enter the galleries upstairs or sit on the steps in the balcony area.

Emergency exits are marked on the plan below. Please note your nearest exit.

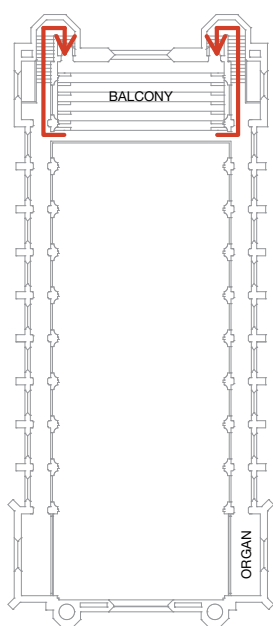
The emergency assembly point is on Goodman Lawns, west of the hall.

If it becomes necessary to evacuate Bonython Hall, an announcement will be made. Follow the directions of the Ushers, exit the hall and move to the assembly point. Guests in wheelchairs should exit the hall via the eastern entrance.

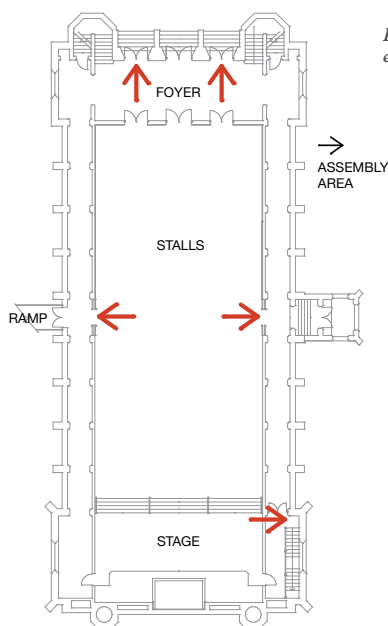
ADDITIONAL INFORMATION

Student Ushers in white shirts can provide further information and assistance.

The ceremony will last around 70 minutes.



South gallery level



Ground floor

*Bonython Hall
emergency exits*



Order of PROCEEDINGS

Before the ceremony, music will be played on the Bonython Hall Organ by Joshua van Konkelenberg BMus(Hons), PhD (Adel), MMus (RCM), GDScreenComp (AFTRS) and Haowei Yang (Student in the Elder Conservatorium of Music)

J.S. Bach: Schmücke dich, o liebe Seele and L.Vierne: Carillon de Westminster

THE ACADEMIC PROCESSION (*please stand*) will enter Bonython Hall.

Trumpet Voluntary by Jeremiah Claire, arr. Iveson, performed by the Elder Conservatorium Brass Ensemble.

- Marshals
- Doctorates in all Faculties/Schools
- Heads of Affiliated Colleges
- Academic and Graduate Staff
- Executive Deans and Heads of Schools
- Senior University Officials
- The Valedictorian
- The Orator
- The Vice-Chancellor
- The Deputy Chancellor
- The Mace Bearer
- The Chancellor

THE NATIONAL ANTHEM to be sung by Charlotte Kelso DipA, BA/BMus(Clas)

*Australians all let us rejoice, For we are young and free;
We've golden soil and wealth for toil, Our home is girt by sea;
Our land abounds in nature's gifts Of beauty rich and rare;
In history's page, let every stage Advance Australia Fair.
In joyful strains then let us sing, Advance Australia Fair.*

Guests to be seated

WELCOME BY THE CHANCELLOR

Rear Admiral the Honourable Kevin Scarce AC CSC RAN (Rtd)

THE OCCASIONAL ADDRESS to be given by

The Honourable Julia Gillard AC

THE MACE BEARER THANKS THE ORATOR

Dr Erinn Peta Fagan-Jeffries will thank the orator

CERTIFICATION STATEMENT by the

Vice-Chancellor Professor Peter Rathjen
BSc (Hons) (Adel), DPhil (Oxon), Hon DLitt (Tas)

PRESENTATION OF AWARDS by Faculty/School

VALEDICTORY ADDRESS given by Dr Jake Cameron Forster

CLOSING REMARKS given by the Rear Admiral

the Honourable Kevin Scarce AC CSC RAN (Rtd)

THE ACADEMIC RECESSION (*please stand*) The academy will leave

Bonython Hall in reverse order to that of entry, followed by the new graduates. During the recession, the organist will play

CMWidor: Toccata from Symphony No. 6.

Guests are requested to remain standing while the procession is leaving Bonython Hall.

Presentation of AWARDS



Conferral of the HONORARY DEGREE

Presented by the Vice-Chancellor and President Professor Peter Rathjen
BSc (Hons) (Adel), DPhil (Oxon), Hon DLitt (Tas)

Doctor of the University (*honoris causa*)

The Honourable Julia Gillard AC

Faculty of SCIENCES

Presented by the Executive Dean of the Faculty of Sciences,
Professor Keith Jones BSc PhD

To the Degree of Bachelor of Science (Wildlife Conservation Biology)

Jane Katherine Cameron
Sienna Ella Gardiner
Lilian Alice Mackintosh
Keisha Huong Nguyen
Andrew John Forrester Paton
Tiah Pepe
Erin Bronte Robinson
Luke Wagenknecht

To the Degree of Bachelor of Science (Space Science and Astrophysics)

Adila Binti Experimental and
Abdul Halim..... Theoretical Physics
Samuel David Experimental and
Barclay Edwards..... Theoretical Physics
Ella Jaelyn Roberts..... Experimental and
Theoretical Physics

To the Degree of Bachelor of Science (Laser Physics and Technology)

Nicholas Experimental and
Ross Phillips..... Theoretical Physics

To the Degree of Bachelor of Science (Nanoscience and Materials)

Trent Russell Chase..... Chemistry (Double)
Mitchell Johnston..... Chemistry and
Evolutionary Biology
Bingchen Wang..... Chemistry and
Applied Mathematics

To the Degree of Bachelor of Science (Molecular Biology)

Claudia Neramitr..... Biochemistry and
Microbiology and
and Immunology
Michelle Genetics and
Microbiology and
Leanne Walter..... Immunology

To the Degree of Bachelor of Science (Molecular and Drug Design)

Jarrel Biochemistry
Christian Alansalon.....and Chemistry
Nagib Adrian Almass..... Biochemistry
and Chemistry
Matthew Biochemistry
Alexander Coleman.....and Chemistry
Jack Klose..... Biochemistry
and Chemistry
Alanah Varricchio..... Biochemistry
and Chemistry

To the Degree of Bachelor of Science (Mineral Geoscience)

Cris Joshua Cruz
Edward Hugh Ellice-Flint
Chloe Karen Hourn-Smith
Jacob Hendrikus Kuys
Savannah Rose Liebelt
Josiah Samuel Materne
Jordan Ryan McEwan
Braden Joel Morgan
Cameron Peter Warren
Jamieson Mainman Woolcock

To the Degree of Bachelor of Science (Marine Biology)

Cristian James Chaplain
William Seow Hua Goh
Angus Mitchell
Joseph Boiston Widdrington

To the Degree of Bachelor of Science (Evolutionary Biology)

Rebecca Claire Lewis..... Palaeontology

**To the Degree of Bachelor of Science
(Biotechnology)**

Zahraa Nima	Biochemistry and Microbiology and Immunology
Saeed Al-Delfi	Immunology
Lachlan Warren	Genetics and Molecular Biotechnology
William Baer	Biotechnology
Benjamin James	Microbiology and Immunology and Molecular Biotechnology
George	Molecular Biotechnology
Imogen	
Kate Winsborough	Biochemistry
	Biochemistry and Microbiology and Immunology
Denghao Wu	and Immunology

**To the Degree of Bachelor of Science
(Biomedical Science)**

	Biochemistry and Microbiology and Immunology
Nethmi Abeynayake	and Immunology
Vinu Antony-Parakkal	Biochemistry
	Biochemistry and Microbiology and Immunology
Jayshen	Biochemistry and Microbiology and Immunology
Christa Arudkumar	and Immunology
	Biochemistry and Microbiology and Immunology
Tsz Yuen Au	and Immunology
	Genetics and Microbiology and Immunology
Warisa Chanthet	and Immunology
	Biochemistry and Genetics
Cheung Suet Wing	and Genetics
	Biochemistry and Microbiology and Immunology
Kelly Lee Ferguson	and Immunology
	Biochemistry and Microbiology and Immunology
Francesca	Biochemistry and Microbiology and Immunology
Sim Xin Ni	and Immunology
	Genetics and Microbiology and Immunology
Andrew Mark Hayles	and Immunology
	Genetics and Microbiology and Immunology
Lianna Jiang	and Immunology
	Biochemistry and Physiology
Sara Jiasuer	and Physiology
	Genetics and Microbiology and Immunology
Elenor Jones-Gray	and Immunology
	Genetics and Microbiology and Immunology
Caitlin Tiahn Kelly	and Immunology
	Genetics and Microbiology and Immunology
Kelvin Lim	Genetics and Microbiology and Immunology
Jynn Khai	and Immunology

	Microbiology and Immunology and Physiology
Wannakorn Wyn	Microbiology and Immunology and Physiology
Kitjongthawonkul	and Physiology
	Biochemistry and Genetics
Ting Him Lee	and Genetics
	Biochemistry and Microbiology and Immunology
Li Man Ying	and Immunology
	Genetics and Microbiology and Immunology
Wing Yan	Genetics and Microbiology and Immunology
Yvonne Lo	and Immunology
	Biochemistry and Microbiology and Immunology
Paolo Maroma	and Immunology
	Biochemistry and Genetics
Remy Elise McGrath	and Genetics
	Genetics and Microbiology and Immunology
Muhammad Lutfi	Genetics and Microbiology and Immunology
Mohamed Halim	and Immunology
	Microbiology and Immunology and Physiology
Linda Phi	Microbiology and Immunology and Physiology
Nhung Nguyen	and Physiology
	Biochemistry and Microbiology and Immunology
Alex Adrian Pace	and Immunology
	Genetics and Microbiology and Immunology
Braden	Genetics and Microbiology and Immunology
David Rose	and Immunology
	Genetics and Microbiology and Immunology
Eyad Anas	Genetics and Microbiology and Immunology
A Sedayo	and Immunology
	Biochemistry and Microbiology and Immunology
Isabella	Biochemistry and Microbiology and Immunology
Sharda Singh	and Immunology
	Genetics and Microbiology and Immunology
Arianne Joy	Genetics and Microbiology and Immunology
Tacal Tomas	and Immunology
	Biochemistry and Microbiology and Immunology
Darcey Morgan	Biochemistry and Microbiology and Immunology
Howat Watson	and Immunology
	Biochemistry and Microbiology and Immunology
Brady Leigh Welsh	and Immunology
	Biochemistry and Microbiology and Immunology
Jo Ern Wong	and Immunology
	Genetics and Microbiology and Immunology
Bing Wu	and Immunology
	Biochemistry and Genetics
Ruiling Xiao	and Genetics
	Genetics and Microbiology and Immunology
Hong Zhan	and Immunology
	Biochemistry and Microbiology and Immunology
Jieren Zheng	and Immunology

To the Degree of Bachelor of Science

William Charles Abbott.....	Ecology and Evolutionary Biology	Andrew Evan McDougall.....	Evolutionary Biology and Genetics
Isaac Cassin Axford.....	Ecology and Geology	Megan Grace McGavin.....	Genetics
James Luke Beshara.....	Biochemistry and Genetics	Laura Rose McGee.....	Biochemistry
Christopher Boutsalis.....	Geology	Alistair Duncan McKinnon.....	Botany and Soil Science
Michael John Crame.....	Genetics and Physiology	Daphne Theresa Cullen McLeod.....	Zoology
Harris Taylor Crettenden.....	Geology	Timothy John An Hu Moy.....	Theoretical Physics
Jacinta Caitlin Dockerill.....	Soil Science	Kate Emily Neadley.....	Biochemistry and Physiology
Ryan James Dye.....	Theoretical Physics and Pure Mathematics	Nur Fareeha Binti Noor Azhar.....	Genetics and Microbiology and Immunology
Ediru Keyamo Benz.....	Geology	Stephanie Elise O'Hara.....	Biochemistry and Microbiology and Immunology
James Eglinton.....	Ecology and Evolutionary Biology	Michael Patrick Papazoglou.....	Geology
Tara Alison Evans.....	Ecology and Evolutionary Biology	Harrison Luke Penfold.....	Experimental and Theoretical Physics
Claire Grace Filsell.....	Evolutionary Biology and Genetics	Imma Jane Peretto.....	Genetics and Microbiology and Immunology
Tyler Jay Follett.....	Chemistry (Double)	Angus Eugene Retallack.....	Ecology and Spatial Science
Alexander Harvey.....	Evolutionary Biology and Genetics	Kalimna Marion Roe-Simons.....	Chemistry (Double)
Katherine Frances Hills.....	Evolutionary Biology and Genetics	Brock Thomas Rogers.....	Chemistry
Shanna Leah Hosking.....	Anatomical Sciences and Microbiology and Immunology	Celina Adele Rosa Sanso.....	Geology and Geophysics and Applied Geology
Isobel Violet Hume.....	Ecology and Spatial Science	Emily Nicole Satchell.....	Ecology and Physiology
Alexander William Jackson.....	Geology	Liam Scarabotti.....	Geology and Geophysics and Applied Geology
Brandon James Keane.....	Theoretical Physics	Michael Alfred Scholich.....	Ecology
Christopher Clement Keneally.....	Microbiology and Immunology	Claire Victoria Schubert.....	Ecology and Zoology
Mavolyn Wei Ting Koh.....	Microbiology and Immunology	Leslie Thornton.....	Microbiology and Immunology and Statistics
Daniel Ji Lim.....	Evolutionary Biology and Genetics	Alexander Miguel Wheatley.....	Biochemistry
Nicola Emma Linn.....	Ecology	Ella-Rose Taylor Wilby.....	Ecology
Xiaoxiao Long.....	Soil Science	Emily Kate Wilkinson.....	Anatomical Sciences and Zoology
Ethan Lachlan Mackereth.....	Chemistry (Double)	Stacey Anita Matthews.....	Anatomical Sciences and Microbiology and Immunology
Hayley Marie Maidment.....	Geology and Soil Science	Daniel Mawhinney.....	Soil Science
Bethany Jayne Marks-Mildren.....	Genetics and Microbiology and Immunology	Ryan McAllister.....	Geology and Geophysics and Applied Geology

To the Degree of Bachelor of Science (Advanced)

Thomas Edward Anthony
George Antoniou
Ester Beltrame
Ebony Kathryn Brouwers
Emily Rose Bubner
Erin Georgia Carnie-Bronca
Aiden Ian Chrisanthakopoulos
Rose Joy Crocker
Michael Anthony Cutufia
Jessica Michelle De La Perrelle
Josif Bailey Dragovelic
Danielle Jade Edwards
Stephanie Corinne Eglinton
Shannon Mariella Evenden
Claire Alice Finn
Chloe Gates
Ewan Gerken
Luke Gierus
Alison Rose Gill
Gian Johan Haasbroek
Luke Tobias Haig-Moir
Calvin John Heath
Sidney John Deland Heitmann
James Mark Hodgkinson-Bean
Riley John Hodgson
Kenneth Joshua Jacks
Olivia Lenore Johnson
Ali Kaissi
Paris Marie Kollis
Annie Grace Kraehe
Shing Yan Kwong
Molly Lloyd
Leslie Moana Marker
Joseph Nicholas John Marks
Christine Natasha Mausolf
Megan McKeough
Deanna Catherine Miller
Jack Anthony Moran
Anna Jane Mullin
Daniel Raymond Overend
Jack Wreford Parsons
Rhianna Louise Penfold
Kleopatra Pericleous
Quang Dung Phan
Ethan Joel Puckridge
Smriti Singh
Lily Elene Taylor
Holly Amber Withers
Vanessa Woelk

To the Honours Degree of Bachelor of Science (High Performance Computational Physics)

Curtis Abell
Mischa Batelaan
Tomas Liam Howson
Adam George Leinweber
Bradley Mark Wegener

To the Honours Degree of Bachelor of Science

Bianca Agenbag Animal Science
Timothy Molecular
Patrick Allen and Cellular Biology
Tiah Louise Bampton Geology
..... Ecology and
George Batzios Environmental Science
Maddison Joy Booth Geology
Luke James Molecular
Bredberg and Cellular Biology
Corey Bridger Physics
Dillon Brown Geology
Katherine Molecular
Alexandra Brown and Cellular Biology
Jessica Ellen Ecology and
Burdon Environmental Science
Georgina Ann Burke Genetics
Thomas Robert Ecology and
Carter Environmental Science
Tiffany Anne Collins Physics
Rebekah Taylor de Nys Genetics
Ellen Margaret de Vries Plant Science
..... Genetics
Carey Samuel Dessaix and Evolution
Daniel Raymond Deverson Genetics
Daniel Zocchi Doherty Chemistry
Brandt Dolic Chemistry
..... Petroleum Geology
Lara Downing and Geophysics
Thao Hong Duong Science in Society
Nathan Toshihiro Eden Chemistry
Adrian Michael Eiffe Physics
Simon Ecology and
Fahey-Sparks Environmental Science
Fang Meiwen Molecular
Danielle and Cellular Biology
Leesa-Joy Flanagan Animal Science
Christian George Geology
..... Ecology and
Saskia Gerhardy Environmental Science
Hannah Gordon Animal Science
Philip Timothy Grace Physics
Alistair Griffin Geology
Jacob David Hart Chemistry
Brock Adam Ecology and
Hedges Environmental Science
Shauna Heinrich Animal Science
Dion Robert Higgie Geology
Celeste Ecology and
Kylie Hill Environmental Science

Katherine Georgia	Ecology and
Weston Hill	Environmental Science
Keh Yee Ho	Genetics and Evolution
Shan Huang	Soil Science
Lauren Louise Hunter	Animal Science
Parris Constance Jeffries	Animal Science
Bianca Jong	Chemistry
Aurelie	Ecology and
Moffatt Kanishka	Environmental Science
Rasha Kardo	Genetics
Tahlia Louise Kennewell	Animal Science
Benjamin James Kimpton	Geology
	Molecular and
Emily Nicole Kirby	Cellular Biology
Juqi Li	Soil Science
Willow Patrick Liddle	Plant Science
Thomas Michael Litster	Genetics
James Henry Lovett	Chemistry
Ethan Lachlan Mackereth	Chemistry
Benjamin James Madigan	Chemistry
	Molecular and
Ricky Anton Matias	Cellular Biology
Niki Louise Mc Carthy	Animal Science
Sarah	Environmental
Alexandra McDonald	Geoscience
Daniel	Molecular and
Patrick McDougal	Cellular Biology
Jamie Alexander McInnes	Physics
Geoffrey Paul McNulty	Physics
Olivia Gabriele Mecinger	Genetics
Rochelle Morton	Animal Science
Caitlin Simone Mudge	Genetics
James Henry	Ecology and
Nankivell	Environmental Science
Urwah Nawaz	Genetics and Evolution
Sophie Kate Ninnies	Chemistry
Alexander Otasevic	Geology
Daniel Philip Petersen	Plant Science
	Ecology and
Nikita Jade Pring	Environmental Science
Michael	Petroleum Geology
Anthony Rieger	and Geophysics
Brock Thomas Rogers	Chemistry
Koster	Ecology and
Georgien Sarakinis	Environmental Science
Matthew Luke Schneider	Chemistry
Nicholas Henry Schnell	Plant Science
April Valerie Shannon	Geology
Damian Stachura	Chemistry
Darwinaji Subarkah	Geology
Geremiah Emmanuel Toledo	Geology
	Environmental
Nerita Kai Turner	Geoscience
Cassandra	Ecology and
Shannon Urgl	Environmental Science
	Molecular and
Jacinta Annie Watts	Cellular Biology
Sarah Martha Watzdorf	Physics
Yee Heng Wong	Geology

To the Graduate Certificate in Physics

Bhagyashalee Madhukar Birajdar
Kimberley Alison Elke Legge
Amrita Pandey

To the Graduate Certificate in Biotechnology (Biomedical)

Soumya Nheralath Pushpakam

To the Degree of Master of Biotechnology (Biomedical)

Karen Ching Khee Hon
Yifei Huo
King Ho Leong
Tabassumben Ahmadbhai Musa
Olivia Pei Ying Oh
Yuqi Xiao
Yan Zhou

To the Degree of Master of Philosophy

Benjamin Crouch

For a thesis entitled: Application of magnetic resonance imaging to the study of age related changes and gender differences in the human brain

Thesis abstract: Age related changes and gender differences in T1 and T2 weighted magnetic resonance brain images were examined in a dataset of 152 healthy subjects using voxel based statistical analysis. Numerous statistically significant patterns of change were identified, most notably a strong negative correlation between T2w signal and age in the putamen, caudate head, para-hippocampal gyrus and amygdala, consistent with accumulation of iron with advancing age in these regions. The effect of the choice of global image intensity normalisation of the images on the results was also examined.

Daniel Field

For a thesis entitled: A New Empirical Climatological Model of ionospheric foF2 and hmF2 and Review of the International Reference Ionosphere

Thesis abstract: This thesis presents Mocha, a new empirical monthly median and variance model of two ionospheric F2 parameters viz. foF2 and hmF2. Additionally, this thesis provides a global review of the International Reference Ionosphere 2016 (IRI2016) foF2 and hmF2 models. IRI is an widely used, industry standard, empirical monthly median model of the ionosphere. Mocha produces more accurate foF2 predictions and significantly more accurate hmF2 predictions than IRI. It also outputs the variance in these parameters which is not currently produced by IRI. Mocha predictions of foF2 and hmF2 may be input to IRI overriding it's internal models of these parameters.

Shaun Murray Gaskin

For a thesis entitled: Investigating the Function of Single-pass Leucine-Rich Repeat Transmembrane Proteins in Cell Signalling and Early Neural Development

Thesis abstract: This study explored the role of the single-pass leucine-rich repeat transmembrane protein Flrt3 in modulating receptor signalling within the cell during development. This was achieved using both an overexpression system and a newly developed system to study endogenous Flrt3 function in early neural development.

The data present in this thesis demonstrates a function of Flrt3 in early neural development during embryogenesis that, when lost, results in the embryonic lethality. This data could therefore provide a molecular mechanism for improper neural development, birth defects, and some miscarriages.

Joel Hoong Zhang Lee

For a thesis entitled: Harnessing P450 Enzymes as Biocatalysts for Selective C-H Bond Hydroxylation

Thesis abstract: The reactivity and selectivity different P450 mutants were studied. Mutants of CYP101B1 were generated and screened with various substrates. The new mutants showed no significant improvement over the Wild-Type enzyme in product yield or selectivity. An existing library of P450cam mutants was also screened with a selection of monoterpene substrates. Two P450cam mutants displayed high yield and selective product formation with isophorone. Different P450cam mutants also selectively oxidised different C-H bonds within 1,8- and 1,4-cineole. Different norisoprenoid and acetate substrates were also selectively oxidised by CYP101B1 and P450BM3 mutants. These oxidation products were isolated and characterised.

Harry David Poulter

For a thesis entitled: Investigating the Effect of Primordial Black Hole Hawking Radiation on the Cosmic Microwave Background

Thesis abstract: The effects of evaporating primordial black holes (PBHs) on the cosmic microwave background are examined using state-of-the-art recombination codes and Planck satellite data.

PBHs are modelled using an effective deposition fraction description, splitting the total ejected radiation into different channels. A program is written that interfaces the resulting modifications to the Boltzmann code CLASS with the Planck data and a sampling algorithm, allowing exclusion bounds for PBH parameters to be calculated. The analysis is expanded, incorporating extended mass distributions and allowing base Lambda-CDM parameters to vary. The results give limits on monochromatic, log-normal and uniform mass distributions.

Louis Michel Ritchie

For a thesis entitled: Synchronisation on Non-compact Manifolds

Thesis abstract: The Kuramoto model is a well-known model of a complex system which exhibits interesting emergent behaviours such as synchronisation. We formulate a non-compact version by replacing the compact rotation group $SO(2)$ by $SO(1,1)$. Solution trajectories are unbounded and generally develop singularities for negative couplings, but synchronisation always occurs for arbitrary driving parameters and for all positive couplings. We interpret the model physically as a system of interacting relativistic particles in two-dimensional spacetime, and extend the model to higher dimensions where the trajectories are confined to a one-sheeted hyperboloid. Synchronisation still occurs for restricted initial conditions.

Joseph Rugari

For a thesis entitled: Electrokinetic Methods and Applications in Australian Aquifer Settings: High-Dimension Electrical Tomography Imaging and Neural Network Filtration Techniques

Thesis abstract: This thesis endeavours to draw further conclusion on the self-potential methods prospective as a value-adding and commercial viability modern geophysical technique in Australian groundwater research. Multiple case studies are presented, with specific emphasis on the importance of three and four-dimensional self-potential tomography modelling.

Additionally, employing use of artificial neural networks within self-potential environmental noise filtration methods, a current gap in geophysical literature has been highlighted. A light is drawn to the combined techniques currently experimental, but immensely promising future of potential applications within the wider electrical geophysics data automation and filtration space.

To the Degree of Doctor of Philosophy

Dr Zuleeza Ahmad

For a thesis entitled: Investigation of a Low Molecular Weight Protein Tyrosine Phosphatase in Streptococcus Pneumoniae

Thesis abstract: Protein tyrosine phosphorylation contributes to the virulence of a major human bacterial pathogen, Streptococcus pneumoniae. This study aimed to investigate and characterise a previously unknown protein tyrosine phosphatase in the pneumococcus, Spd1837.

Using biochemical studies and pull-down assays, Spd1837 was shown to be a low molecular weight protein tyrosine phosphatase which may modulate the pneumococcal metabolism. The importance of the operon in which spd1837 is encoded in the pneumococcal virulence and potentially transmission via human saliva were also reported. Additionally, we showed that Spd1837 regulates the pneumococcal capsule biosynthesis via a complex interplay with the enzyme pyruvate oxidase.

Dr Matthew Thomas Briggs

For a thesis entitled: Painting a Picture of the Ovarian Cancer N-Glycome

Thesis abstract: MALDI mass spectrometry imaging has emerged as a platform to spatially map and visualise N-glycans in tissue-specific regions. This platform was utilised to investigate the intrapatient and interpatient variability between early- and late-stage ovarian cancer patients using FFPE tissue sections. From these studies, specific N-glycan differences were identified between the early- and late-stage tumour microenvironment that could lead to the development of novel clinical strategies and treatment regimens for ovarian cancer patients in the future.

Dr Dennis John Conway

For a thesis entitled: Advances in Magnetotelluric Modelling: Time-Lapse Inversion, Bayesian Inversion and Machine Learning

Thesis abstract: This thesis presents advancements to the area of magnetotelluric (MT) modelling. The first aim of this work is to implement an inversion to model time-lapse MT data in a temporal dimension. Second is to explore the problem of non-uniqueness in MT data inversion by implementing a 1D Bayesian inversion using an efficient sampler. The third aim is to implement a proxy function for the 3D MT forward function based on artificial neural networks. Together, the results from these three novel algorithms and software implementations represent a contribution to the toolkit of MT modelling.

Dr Jenna Crowe-Riddell

For a thesis entitled: The Evolution of Cutaneous Senses in Marine Snakes (Hydrophiinae)

Thesis abstract: I investigated two cutaneous senses in marine snakes (Hydrophiinae), mechanoreception and dermal phototaxis. I quantified the morphology of scale organs using a range of microscopy techniques, finding high variation in outer trait morphology across 19 species, but the underlying structure of scale organs in sea snakes resemble the mechanosensory organs of land snakes, which indicates a mechanosensory function. To investigate the evolution and molecular mechanisms underlying dermal (tail) phototaxis in sea snakes, I integrated phylogenetic, behavioural, ecological and gene expression data, finding that this novel sense likely evolved in a small clade of Aipysurus species by using

Dr Shannon Christa David

For a thesis entitled: Enhancement of pathogen-specific immunity following co-administration of whole inactivated respiratory vaccines

Thesis abstract: Influenza A virus (IAV) and Streptococcus pneumoniae are two of the most prominent respiratory pathogens affecting humans worldwide. Our group has been developing novel inactivated vaccines against each of these pathogens, and the aim of this study was to further refine each formulation to enable clinical development.

The findings of this thesis demonstrate that safety and immunogenicity was enhanced for each vaccine individually. Furthermore, co-administration of these vaccines was associated with enhanced pathogen-specific immunity. Data also demonstrates direct binding between IAV and S. pneumoniae; to our knowledge, we are the first to report this interaction.

Dr Raphael Alexandre Eisenhofer Philipona

For a thesis entitled: New and Refined Tools and Guidelines to Expand the Scope and Improve the Reproducibility of Palaeomicrobiological Research

Thesis abstract: Palaeomicrobiology the study of ancient microorganisms has come of age due to advancements in high-throughput DNA sequencing and the recent discovery that dental calculus is an exceptional reservoir of ancient microbial DNA. However, challenges remain in the analysis and authentication of ancient microbial DNA data.

This thesis refines existing methods and develops new tools and guidelines to expand the scope and reproducibility of palaeomicrobiological research. This work includes 132 new ancient dental calculus samples from the Asia-Pacific region and lays the groundwork to use ancient microbial DNA as a proxy for past human movements across Earth.

Dr Erinn Peta Fagan-Jeffries

For a thesis entitled: Biodiversity, taxonomy and systematics of Australian microgastrine parasitoid wasps

Thesis abstract: Microgastrine wasps are endoparasitoids of caterpillars, and one of the most species-rich groups of Hymenoptera on the planet. There are approximately 130 species in 22 genera described from Australia. In this project, a large DNA barcoding and species delimitation study is carried out using highthroughput methods, providing a framework for rapid species descriptions and providing new insights into the diversity of the subfamily. Intragenomic variation of the internal transcribed spacer 2 region is explored for the genus Diolcogaster. Fifteen new species from three genera are described, including many species collected on 'Bush Blitz' expeditions in Australian reserves.

Dr Jake Cameron Forster

For a thesis entitled: Spatio-Temporal, Multicellular and Monte Carlo Track-Based Model of Radiotherapy In Silico

Thesis abstract: The main challenge in the treatment of head and neck cancer is inter-patient variable tumour hypoxia. A new computational radiotherapy model was developed for head and neck cancer, with a focus on simulating tumour hypoxia. A multicellular tumour with vasculature was grown via spatio-temporal cell division.

The radiation effect was modelled starting from Monte Carlo tracks simulated through the multicellular tumour. Tracks were converted to DNA damage and cell death was predicted from the misrepair of double-strand breaks. Computational models may help further individualise radiotherapy treatment planning, for example, to better account for patient tumour hypoxia.

Dr Jaimi Ann Gray

For a thesis entitled: Skull Evolution in the Australian Dragon Lizards

Thesis abstract: Skull shape is a rich source of evolutionary diversity, incorporating the major sense organs and feeding apparatus. I reveal the major evolutionary patterns in skull shape among living species of Australian New Guinean dragon lizards (family Agamidae). Using innovative methods (e.g. X-ray CT scanning and threedimensional landmark analysis) I show how different skull shapes are associated with different life habits. I also identify how these differences might be achieved via modifications to growth pattern and adult size. This greater knowledge of lizard skull anatomy unlocks the potential for studying fossil material as well as ecological changes through deep-time.

Dr Robert Allan Hardy

For a thesis entitled: Photo-Ionisation and Density Functional Theory Studies of Gold Doped Cerium Oxide Clusters

Thesis abstract: Small cerium oxide and gold doped cerium oxide clusters were investigated as analogues for gold deposition at defect sites on a cerium oxide surface. The clusters were prepared in the gas phase and their properties explored using photo-ionisation efficiency spectroscopy complemented by DFT calculations and Zero Electron Kinetic Energy spectral simulations. The oxygen deficient clusters exhibited properties correlating with Au deposition at an O vacancy site while the higher oxide clusters were consistent with Au deposition at a CeO₂ vacancy site. The former showed a Ce→Au charge transfer process while the latter displayed Au→Ce charge transfer.

Dr Lachlan Mitchell Harris

For a thesis entitled: Development of an Er:YAG Laser for Range-finding

Thesis abstract: Accurate long distance, range finding requires a laser with a high peak power and short pulse duration, but eye safety is important for outdoor applications. I describe the development of laser that emits at eye-safe wavelengths without the use of inefficient and bulky wavelength shifting systems. This new laser combines a diode pumped, erbium-doped YAG slab gain medium and Q-switched cavity-dumping, to produce 1645nm pulses of duration less than 5ns and peak power greater than 2MW, which is currently the highest peak power in the world at that wavelength.

Dr Sophie Ellen Harrison

For a thesis entitled: Contributions to the Systematics and Biogeography of the Mygalomorph Spider Families Migidae and Idiopidae in Australia

Thesis abstract: The genus *Blakistonia* is a member of the trapdoor spider family Idiopidae. A systematic revision of the genus was undertaken using a combined morphological and molecular approach. Sequence data from the COI gene were analysed using Bayesian, RAXML and neighbour-joining approaches. This resulted in 19 new species being described. A six gene dataset was also generated to examine the biogeographic history of 'Blakistonia' rainbowi, which was transferred to the otherwise African genus *Moggridgea* (family Migidae). The results provided strong support for the hypothesis that *Moggridgea* colonised Australia via trans-oceanic dispersal.

Dr Adrian James Hunter

For a thesis entitled: Disruption of carbon catabolite repression and investigation of amylase gene duplication in the filamentous fungus *Aspergillus oryzae*

Thesis abstract: Carbon catabolite repression was disrupted in the filamentous fungus *Aspergillus oryzae* by deleting the gene *creB*. This increased the secretion of enzymes including cellulases, xylanases and amylases. The strain grew robustly in a bioreactor on synthetic winery wastewater, and may be useful in industry. A separate *A. oryzae* strain used in industry was shown to already have a mutation in *creB*.

A. oryzae has multiple copies of the alpha-amylase gene that arose through domestication. This work showed the additional copies arose independently in different strains, in some cases through the activity of transposable elements.

Dr Amy Rebecca Iannella

For a thesis entitled: Co-Evolution of Rabbits and the Rabbit Haemorrhagic Disease Virus (RHDV) in Australia

Thesis abstract: Invasive rabbits are a major agricultural and ecological pest in Australia. This thesis examines the coevolution of rabbits and an important biocontrol, the rabbit haemorrhagic disease virus (RHDV), using next generation sequencing techniques. I show that fly traps can be used to detect and monitor the virus more efficiently than traditional rabbit carcass searches, and I examine the implications of multiple co-circulating RHDV variants. Multiple historic introductions are supported by the genetic structure of Australian rabbits, contrary to prior assumptions. Pedigree and recapture data from an intensively studied population are used to examine rabbit reproductive strategy and model offspring survival.

Dr Lu Zeng

For a thesis entitled: The Impact of Transposable Elements on Amniote Evolution

Thesis abstract: Transposable elements (TEs) are mobile DNA sequences, often called "jumping genes" because of their ability to replicate to new genomic locations. Originally viewed as "junk" DNA, TEs are now recognized as powerful drivers of genome evolution.

This thesis presents novel approaches for identifying and annotating species-specific TEs and segmental duplications with high sensitivity and accuracy, and allowed straightforward analysis of evolutionary dynamics. By characterizing millions of TEs across eight disparate amniote genomes, and investigating their association with gene expression, it provides evidence for their impact and importance in amniote evolution.

Dr Andrew Craig Marshall

For a thesis entitled: Structural and Biochemical Studies on Three *Aspergillus fumigatus* Proteins That Present as Targets for Novel Antifungal Drugs

Thesis abstract: *Aspergillus fumigatus* commonly causes invasive fungal infections in immunocompromised patients that are difficult to treat and are associated with high mortality rates. Treatment options are limited and drug-resistance is increasing, highlighting the need for antifungal development.

This study describes the first X-ray crystal structures of three *A. fumigatus* proteins involved in sterol synthesis, DNA replication, and intracellular redox homeostasis, respectively - all processes essential for fungal growth and survival. This structural information was combined with biochemical and biophysical data to provide insight into substrate binding, catalytic mechanism, allostery, protein-protein interactions, and inhibition, uncovering avenues for the development of new antifungals.

Dr Kimberly Peta McCallum

For a thesis entitled: Clumped planting arrangements can improve the ecological function of revegetated eucalypt woodlands

Thesis abstract: In natural plant communities, the spatial arrangements of plants influence the majority of ecological processes that occur (e.g. survival, pollination, seed dispersal). Despite this, plant arrangements are rarely considered an important feature of revegetated communities and this may limit the functional development of these re-planted systems.

Analysis of a revegetated eucalypt woodland showed that planting arrangements influenced eucalypt reproduction (seed production, mating systems, pollen dispersal), with plant spacing and aggregation key factors. Conspecific aggregation is common in natural eucalypt woodlands, therefore, using natural communities to guide planting designs has the potential to improve the reproductive performance of revegetated populations.

Dr Matthew Neilson McMillan

For a thesis entitled: An Integrated Approach to Assess Pupping Areas and Natal Origins in a Conservation Dependent Shark, *Galeorhinus galeus*

Thesis abstract: Knowledge about reproductive habitats and movements can inform conservation and fisheries management. The school shark *Galeorhinus galeus* has been overfished in Australia and is Conservation Dependent, yet has not recovered from population declines despite limits on fishing to aid recovery. Knowledge about the extent of pupping areas and origins of populations has been lacking and debated for decades.

An approach integrating methods including microchemistry, energetics and satellite tagging was used to determine that populations derive from different sources and pupping occurs over more of the species' range than previously assumed, likely extending from South Australia to New Zealand.

Dr Benjamin Jason Menadue

For a thesis entitled: A Study of the Lambda(1405) in Lattice QCD

Thesis abstract: The lowest-lying odd-parity state of the Lambda baryon lies surprisingly low in mass. At 1405 MeV, it lies lower than the lowest-lying odd-parity nucleon, even though it has a heavier valence strange quark. It is very difficult to reconcile this mass with the quark model interpretation for this state.

In this work, we use lattice quantum chromodynamics (QCD) to investigate the energy spectrum and electromagnetic properties of the odd-parity Lambda sector. We find evidence of a significant antikaon-nucleon component in the structure of the Lambda(1405) - that is, evidence for the existence of molecular mesonbaryon bound states in QCD.

Dr Heidi Anne Neubauer

For a thesis entitled: Roles and Regulation of Sphingosine Kinase 2 in Cancer

Thesis abstract: This study explored the poorly understood roles and regulation of the cell signalling enzyme sphingosine kinase 2 (SK2) in cancer. Specifically, this work demonstrated for the first time that SK2 can promote tumour growth and is a valid target for anti-cancer therapy. These studies also defined several mechanisms of regulation of SK2, including identifying a novel SK2 interacting-protein, IC-1, that was found to control the cancer-promoting potential of SK2.

Overall, the studies presented in this thesis provide new insights into the complex functions and regulation of SK2 in cancer, and validate SK2 as a promising therapeutic target.

Dr Maria Angelica Del Rosario Rea

For a thesis entitled: Biogeochemical Cycling of Gold: Exploring the Links between Gold Transformation, Microbial Communities, Biogeochemical Processes and Mineralisation Style

Thesis abstract: This dissertation highlights the links between the transformation of placer gold particles and biogeochemical processes. The recruitment of diverse bacteria enables the formation of mixed-species biofilms, which develop resistances to base metal and gold toxicity. Greater species diversity with these shared functional traits correlates with increased biogeochemical transformation of particles. On particle surfaces the resident microorganisms contribute to gold dissolution and re-precipitation, thereby catalysing the dispersion of gold into near-surface environments. These findings contribute to the fundamental knowledge in gold geomicrobiology, which is needed for predicting gold mobility and transport in the environment, thereby enhancing bioexploration and biomining technologies.

Dr Louise Jane Robertson

For a thesis entitled: Mouse Genome Modification and Investigation of Episodic Disease

Thesis abstract: Mouse models are essential tools for biomedical research, including the investigation of human disease. Studies in this thesis explore the use of genetically modified mice for understanding human epilepsy, as well as develop new technologies for mouse genome editing. The research presents a genetic mouse model that recapitulates phenotypes observed in patients with episodic disease, assesses CRISPR/Cas9 variants for efficacy in mouse genome editing and provides a straightforward comparison for immunofluorescent staining on epitope-tagged endogenous protein. The thesis highlights the versatility of the CRISPR/Cas9 platform and the importance of mouse models for uncovering the mechanisms behind complex human genetic disease.

Dr Michael Swinbourne

For a thesis entitled: Southern Hairy-Nosed Wombats: When, Where, How Many, and Why

Thesis abstract: Using a combination of satellite imagery, remote sensing and field surveys, we completed a species-wide survey of the southern hairy-nosed wombat population. Following a substantial decline in the nineteenth century, the wombat population has been recovering over the past few decades, thanks to the effective biological control of rabbits.

The population remains fragmented, due mainly to control actions which removed wombats from regions now used for cereal crops. The overall species distribution is constrained by climate variables such as low rainfall and increased drought frequency, suggesting that wombats may be sensitive to the effects of anthropogenic climate change.

Dr Myall Alexander Tarran

For a thesis entitled: Contributions to the Cenozoic Macrofossil Record of the Myrtaceae in South Eastern Australia

Thesis abstract: The Myrtaceae are a key flowering plant family in the Southern Hemisphere vegetation, but the family has a poorly studied fossil record. In this thesis, the macrofossil record of the Myrtaceae is reviewed, and it is found that the majority of published records of Myrtaceae fossils are equivocal. In the subsequent chapters, fossils of the genus *Metrosideros*, and fossil leaves of the genus *Syzygium* are described. These fossils are now some of the best described Myrtaceae fossils in the literature, posing significant advances understanding the paleobiogeography of these genera, and providing a framework for identification of future Myrtaceae macrofossils.

Dr Thi Thuong Ha

For a thesis entitled: The Genetic Basis of Malformation of Cortical Development Syndromes: Primary Focus on Aicardi Syndrome

Thesis abstract: Aicardi Syndrome (AIC) is a rare neurodevelopmental disorder defined by specific eye, brain and seizure pathologies. The disorder almost exclusively affects females however despite 70 years of investigations focused on chromosome X, a causative mutation remains to be found. In this thesis, an unbiased, genome-wide assessment of AIC was used and showed that the causes underlying AIC are genetically heterogeneous but converge on cortical development pathways. These findings highlight the importance of genetic studies to guide differential diagnosis of complex syndromes like AIC and helped to understand how these brain disorders arise.

Dr Adam John Tomlinson

For a thesis entitled: The role of phytoplankton as pre-cursors for disinfection by-product formation upon chlorination

Thesis abstract: This investigation into the role of phytoplankton as pre-cursors for disinfection by-product (DBP) formation highlights the necessity to further consider the implications of phytoplankton organic matter on end use water quality and related human health issues. It was evident that organic matter during these dense phytoplankton blooms produced significantly more DBPs compared to incidences where phytoplankton populations were low. Alarming, chlorination of phytoplankton organic matter did not produce substantial increases in regulated THMs and HAAs. However, the unregulated DBPs including genotoxic nitrogenous DBPs were formed in high concentrations, which could result in unchecked detrimental human health issues.

Dr Md. Hadayet Ullah

For a thesis entitled: Response of Temperate Marine Food Webs to Climate Change and Ocean Acidification: Bridging the Gap between Experimental Manipulation and Complex Foodwebs

Thesis abstract: Global warming and ocean acidification are forecast to exert significant impacts on biological communities of marine ecosystems. However, we particularly lack a clear understanding of the combined effect of these two stressors under realistic experimental settings or within natural food webs where species often interact with each other. This thesis suggests that future temperate marine food webs will likely be controlled by warming via top-down effects through increasing trophic interaction strength and increases of opportunistic species. Concurrently, climate change can weaken the energy flow from producers to herbivores to carnivores and lead reduced functional diversity.

Dr Ayla Lore van Loenen

For a thesis entitled: The ‘next generation of ancient DNA research: a series of methods and approaches to improve our understanding of the evolutionary history of species in general, and European bison in particular

Thesis abstract: Understanding the complex and dynamic patterns and processes underlying the evolutionary history of a species in an environmental context is key to our understanding of how species evolve. This can be used predict how species may continue to evolve in future, and to develop appropriate conservation management strategies for species currently under threat. Ultimately the research presented in this thesis contributes towards the next-generation of ancient DNA research by providing a series of tools and approaches for future research into the evolutionary history of species in general, with a specific focus on the evolutionary history of European bison.

To the Degree of Doctor of Science in the Faculty of Sciences

Dr Christopher Brian Daniels

For a thesis entitled: The Lives of Animals and Animals in Our Lives

Thesis abstract: Adaptations of animals to their individual environmental conditions can be unique and so wonderfully variable. However, there are also underpinning physiological hurdles that must be overcome for evolutionary success. Controlling surface tension in the lung is one such hurdle. Pulmonary surfactant enables lung inflation and whilst the environment can shape the surfactant composition in individual species, the system itself is remarkably conserved. Evolutionary animal biology also impacts real world issues in wildlife conservation and between people and nature. New scientific methods including citizen science enhances our growing understanding that animals and wildlife are fundamental to our own health and well-being.

Additional AWARDS

Faculty of **ENGINEERING, COMPUTER AND MATHEMATICAL SCIENCES**

To the Degree of Bachelor of Mathematical and Computer Sciences

Rose Joy Crocker Applied Mathematics

To the Honours Degree of Bachelor of Engineering

Harrison Mechanical and
Luke Penfold Aerospace Engineering

Faculty of **ARTS**

To the Diploma in Languages

Jarrel Christian Alansalon

Claire Grace Filsell

Katherine Frances Hills

Claudia Neramitr

To the Degree of Bachelor of Arts

Jacinta Caitlin Dockerill History

James Eglinton Philosophy

Daphne Theresa

Cullen McLeod English

Kate Emily Neadley French

Claire Victoria Schubert Classics

..... International
Development,
and Politics and

Leslie Thornton International Relations

School of **EDUCATION**

To the Degree of Bachelor of Teaching

Brock Thomas Rogers

THE UNIVERSITY MEDAL

Presented by the Vice-Chancellor and
President, Professor Peter Rathjen
BSc (Hons) (Adel), DPhil (Oxon),
Hon DLitt (Tas)

Philip Timothy Grace

THE UNIVERSITY DOCTORAL RESEARCH MEDAL

Presented by the Vice-Chancellor and
President, Professor Peter Rathjen
BSc (Hons) (Adel), DPhil (Oxon),
Hon DLitt (Tas)

Dr Erinn Peta Fagan-Jeffries

Dr Phong Huy Nguyen



Your ALUMNI COMMUNITY

As a graduate of the University of Adelaide, we welcome you to the alumni community.

Our alumni have a history of shared experiences and memories, understood by those who came before you, those who studied with you and those who will soon join the alumni community.

As part of the University family, you receive professional support throughout your career, access to lifelong learning and a community to share and celebrate your achievements.

Being part of our alumni community unlocks access to a range of opportunities including:

BENEFITS

Enjoy access to a range of alumni benefits and services including complimentary Barr Smith Library membership for a year after you graduate, after-hours parking permits, travel insurance and much more. For more information visit ua.edu.au/alumni/benefits

NETWORKS

Alumni Networks help alumni connect with each other and the University with opportunities for career development and collaboration. Continue your connection and interaction with other alumni and the University by attending one of our alumni network events. Find out about upcoming network events: ua.edu.au/alumni/networks

PUBLICATIONS

We offer a range of diverse and informative publications to keep you informed of the latest news and events across the University.

Enjoy reading our biannual magazine *lumen* for uplifting stories of the work and lives of alumni, and stay updated with the latest University news in our monthly Alumni e-News. Read the latest edition of *lumen* at ua.edu.au/alumni/lumen



REUNIONS

Alumni Reunions provide the opportunity for all alumni – students and staff alike – to revisit the people and places that made their time at the University of Adelaide unique. Find an upcoming reunion at ua.edu.au/alumni/reunions

ALUMNI COUNCIL

As an alumnus, you have the right to vote or nominate members for the Alumni Council which represents the global alumni community's views. The Alumni Council commits to supporting a dynamic and relevant alumni program, for the mutual benefit of alumni and the University.

AWARDS

Our alumni's influence on the world stage is profound, from their efforts advancing the common good to inspiring others to think innovatively and creatively. We are proud to celebrate and acknowledge these achievements each year through an array of alumni awards.

MAKE A DIFFERENCE

A gift to the University directly supports students and researchers in realising their potential. Student scholarships are a priority, so that our best and brightest will not miss out on the transformative influence of a tertiary education because of their financial circumstances. Contributions towards cutting-edge, high-impact research ensure that we can tackle the most challenging problems of our time.

We value support in all forms, no matter how big or small. Your gift will have a lasting impact.

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