

2019

GRADUATION CEREMONIES

THE UNIVERSITY OF ADELAIDE



THE UNIVERSITY
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

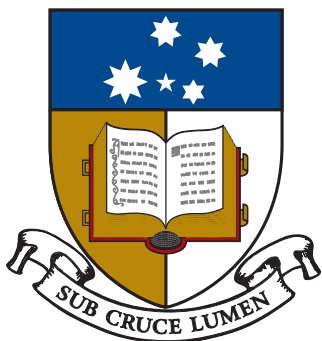
Ngadlurlu Kurna miyurna tampinhi.
Parna yarta mathanya Wama Tarntanyaku.

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.

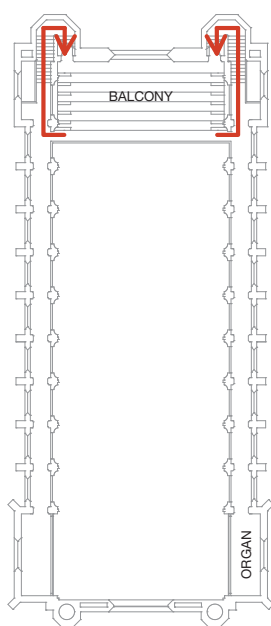
The emergency assembly point is on Goodman Lawns, west of the hall.

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.

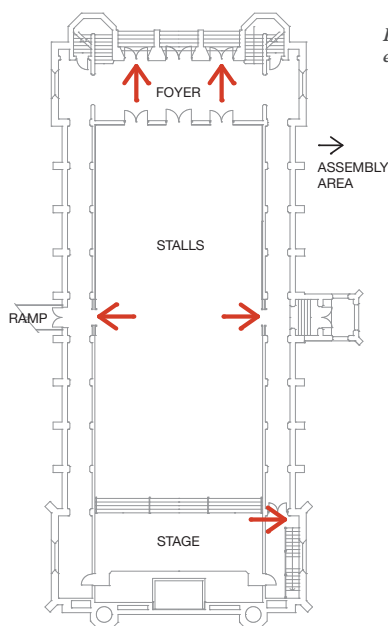
ADDITIONAL INFORMATION

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

The ceremony will last around 70 minutes.



South gallery level



Ground floor



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)

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 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 Professor Peter Høj AC

THE MACE BEARER THANKS THE ORATOR

Dr Xiujuan Yang 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 Ms Bethany Alice Sleep

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
CM Widor: 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)

Professor Peter Høj 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 Viticulture and Oenology

Louise Armstrong
Naomi Anne Armstrong
Olivia Claire Brenecki
Peter James Collett
Cooper Davis-Draper
Owen Patrick Giovine
Shoufang Hu
Georgina Annie Jacobs
Bronson Scott Kies
Marco Mario Lubiana
Emily Kate Macpherson
Jessey Rae McGowen
Laura McKenna
Daniel Iain McNicol
Sophie Claire Melton
Gabriel Guy Robert Morgan
Sarah Elizabeth Mould
Conrad Pohlinger
Chen Rao
Elise Mary Redhead
Domenic Scarpantoni
Anzor Uzunashviliz

To the Degree of Bachelor of Science (Veterinary Bioscience)

Mieke Alberts
Julia Baraitar
Sarah Maree Bassett
Lauren Courtney Bielby
Amanda Emily Marshall Blaxland
Sean Rhiley Blieschke
Katelyn Amy Boddington
Kristina Bogatic
Rebecca Bianca Bridgman
Charlotte Rae Camail-Pearce
Jennifer Madeleine Connolly
Alexandra Elizabeth Culver
Elizabeth Joy Davey
Emma Linda Davy
Emily Jane Dean
Jessamie Rose Faunt

Isabella Ruby Fricke
Jessica Ashleigh Hancock
Meghan Lorraine Hanna
Lisa Grace Hanson
Tom Nicholas Hollis
Briana Cheyenne House
Monique Patricia Huffa
Shontay Jade Illman
Samantha Jane Kelly
Alana Nicole Kember
Anja Marié Klingenberg
Jessica Caitlin Hoey Law
Victoria Alexandra Lindholm
Victoria Ella Ludlow
Emma Rose Maley
Charlie James Mintz
Georgia Kate Moloney
Benjamin Alfred Moore
Santiago David Neumann
Dylan Russell Newble
Pik Kei Ng
Emily Grace Nicholson Gartley
Mari Oshiro
Tammy Pan
Caitlin Gwyneth Pedler
Miguelita Prinsloo
Sarah Lorraine Richardson
Julia Kate Riches
Alana Jade Ryan
Ashleigh Taylor Ryan
Hannah Jean Sanders
Jessica Lee Scriven
Hannah Chantelle Smith
Nicole Staykov
Grace Jane Tansley
Holly Jane Taylor
Kara Catherine Taylor
Katharine Thompson
Sonia Miaoling Treagus
Bronte Emily Turner
Ashlee Luka Vandenbroek
Jade Marie Wastell-Stevens
Brianna Tayla Whitlock

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

Gemma Balog
Emily Rose Boothey
Solyn Keo Bou
Stephanie Jane Brooks
Chloe Renee Buchanan
Sheridyn Lee Cargill
Meghan Ellen Copping
Erin Ann DesRoches
Ellie Frances Duffy
Jasmine Mirischa Duncan
Chynna Jae Eichner
Connor Evans
Hayley Michelle Finlay
Matilda Grace Harvey
Isabella Mary Louisa Hodge
Jamie Jones
Molly May Kalman
Isabel Lillian Kellaway
Shannon Kleemann
Bobbie Emilia Lewis Baida
Lucy Lu
Lucy Louise Mason
Alex McEvoy
Caitlin Emma McFarlane
Tara Jane McKenzie
Matthew Aaron McQueen
Carolyn Mitchell
Amy Laurel Munn
Nicholas John Murdock
Gabrielle Judith Oliver
Mikaela Jayne Paech
Trang Pham
Maddison Lee Pierce
William Hugh Reynolds
Pia Riddell
Anna Jean Rogers
Seth Rowlands
Cameron James Russell
Jasmine May Schwarze
Ignatius Edwin Setiadi
Abilash Sivadasan

Amanda Cecilia Giuliana Thomas
Katelyn Joy Tomas
Valerie Neo Yun Ya
Sarah Caroline Welsh
Kellie May Wenham
Rebecca Jade White
Meg Williams
Cassandra Lee Woods

**To the Degree of Bachelor of Food
and Nutrition Science**

Bryanna Louise Allan
Vivian Chew
Ho Ying Chow
Imogen Holli Clavell
Nicholas Phillip Cottrell
Mitchell John Crisp
Wai Si Vincy Fung
Kelly May Hall
Paul Kallas
Rebekah Jean Laslett
Xin Quen Lau
Pui Shuen Lee
Ben Ma
Alexandra Margaret Mavrogiannis
Tabitha Morgan
Shakyla Shafaq
Tang Lok Yin Dorothy
Si Hui Tea
Jonathan Tran
Lok Yi Angel Tsoi
Zihao Zhao
Rui Zuo

**To the Degree of Bachelor of
Applied Biology**

Jacqueline Paige Barsby
Jamie Bridger
Daniel James Clayton-Cuch
Clare Anne Dixon
Thu-Nghy Do
Ruaraidh Mills
Robyn Alison Stevenson
Elisabeth Mary Williamson

**To the Degree of Bachelor of
Agricultural Sciences**

Tarnya Nicole Beelitz
Alexander James Boehm
Jordan Paul Bruce
Ngoc Nguyen Minh Bui
Jackie Anne Chapman
Alex James Clare
Mark Joseph De Lisio
Jana Dixon
Thomas Henry Drew
Timothy James Eastwood
Shannon Lee Endersby
Denham Allan Ewens
Benjamin John Fischer
Xinyuan Fu
Sophie Ellen Haigh
Declan Holroyd Harvey
Liam Holland
Brayden Tyler Hondow
Brodie Daniel Hondow
Alice Victoria Kirk
Brendan Michael Kupke
Hiu Ching Lam
Lee Chi Shin
Stacey Lee
Rui Liu
William Eric Longmire
Yiwen Luo
Benjamin Lee McGorm
Madeleine Jayne McNeilly
Amber De-An Meyers
Justin Alexander Mills
Nathaniel Modra
Samuel Thomas Modra
Rhys Albert Muller
Penelope Elizabeth Nesbitt
Timothy Ravesteyn
Zachary Connor Reardon
Kassandra Leah Riddle
Hugo Peter Rikard-Bell
Caleb Peter Rohrlach
Sam Sanders
Jarrad Schiller
Joseph David Schmitt
Harry John Simpson
Angus James Slack

Bethany Alice Sleep
Benjamin David Smith
Rebekah Evelyn Starick
Kayla May Starkey
Patrick David Timmins
Elizabeth Rose Ward
Kurtis Ian Ward
Benjamin James Wiblin
Mary Grace Williams
Xiyue Zhang

**To the Honours Degree of Bachelor of
Viticulture and Oenology**

Lukas John Papagiannis
Menghan Yang

**To the Honours Degree of Bachelor of
Food and Nutrition Science**

Sophie Louise Michaela Riley

**To the Honours Degree of
Bachelor of Applied Biology**

Daniel James Clayton-Cuch
Clare Anne Dixon

**To the Graduate Diploma in
Viticulture and Oenology**

Hanyu Lin

**To the Degree of Master of
Viticulture and Oenology**

Bo Sun
Wei-Wan Wang
Baokun Yang

**To the Degree of Master of
Biotechnology (Plant Biotechnology)**

Leighlan Edward Doe
Hanyue Wang
Fei Zheng

To the Degree of Doctor of Veterinary Medicine

Marion Jean Abbott
Saif Samea Amir Al-Sowaidi
Jessica Paige Bammann
Alexandra Jane Barrow
Dylan Alexander Bigatton
Richelle Grace Butcher
Georgina Melanie Champion de Crespigny
Beatrice Chan
Grace Elizabeth Chapman
Jonathon Richard Chinner
Eleanor Angela Chipperfield
Rebecca Leanne Churchill
Daniel Alexander Colella
Sophie Joy Davies
Sarukkali Galappatthige NadunThamara De Silva
Rebecca Louise Dinning
Alister Andrew Douglas
Philip Mark Richard Downey
Shadi Elbaali
Suria Fabbri
Sally Jane Gazzard
Sharna Elise Harrison
Nora Catherine Henry
Joel Michael Hummel
Shiow Jing Khuu
Chi Shing Loung
Natasha Kate McConnell
Daniel Timothy McGilp
Angus Stuart Misan
Caitlyn Anne Page
Sarah Kate Panigas
Garwai Phan
Miguelita Prinsloo
Alysha Kay Sandercock
Sophie Elisabeth Scott
Christopher Gordon Smith
Hannah Mary Studdert
Hou Ting Tan
Nicolette Helena Thomas
Lisa Terese Trigg
Anders Bernard Tsui
Nicola Elizabeth Woodward
Tammy Ann Young
Shijia Zhou

To the Degree of Doctor of Philosophy

Dr Rebecca Jane Abraham

For a thesis entitled: Repurposing of Robenidine and Characterization of Novel Analogues for Treatment of Infectious Diseases

Thesis abstract: In this study a novel library of compounds, based on the structure of robenidine, was investigated as potential antimicrobial agents. Subsets of compounds were screened against bacteria, *Leishmania donovani*, *Trypanosoma brucei* and *Giardia duodenalis*. Select compounds were active against Gram-positive bacteria (MIC 1.3 microM), *L. donovani* (IC50), *T. brucei* (IC50) and *G. duodenalis* (IC50 0.2 microM). Structurally distinct analogues were found to be selective for certain isolates. 13 analogues were identified that were selective for *Giardia* only and electron microscopy showed severe morphological effects on treated trophozoites. In conclusion several potential antimicrobials were identified in this study.

Dr Timothy Hugh Barker

For a thesis entitled: Analysis of the Judgement Bias Test for Welfare Assessment in Rats

Thesis abstract: Cognitive bias detection is an important measure of animal affect. Negative cognitive biases are evidenced by animals processing novel information pessimistically. Judgement-bias testing is the commonplace methodology to detect such biases. As the use of judgement-bias testing to assess animal affect has increased, concerns regarding the efficacy of these methods have been raised. Investigations in this thesis focused on a common judgement-bias test for rats. Confounding factors that had received limited attention were investigated. The findings support the increased effectiveness of judgment-bias testing in animals with associated improvements in statistical validity of the data collected.

Dr Erandi Hewawasam Gardiye Hewawasam Thuduwege

For a thesis entitled: The Short and Long Term Effects of DHA in Preterm Infants: Free Fatty Acids, Lipid Mediators and Neurodevelopmental Outcomes

Thesis abstract: Preterm infants are at an increased risk of health complications. This may be because they miss out on the major period of in utero accretion of polyunsaturated fatty acids, in particular the omega-3 docosahexaenoic acid (DHA), which are involved in regulating neurodevelopment and immune functions. A novel method for assessing polyunsaturated free fatty acids and their downstream lipid mediators from dried blood spot was developed and used to measure the lipid profile in preterm infants. DHA supplementation in preterm infants resulted in changes in the lipid profile, but there was no effect on early childhood attention in these children.

Dr Christopher Hakachite

For a thesis entitled: Analysis of Cereal Cyst Nematode Resistance Mechanisms in Barley

Thesis abstract: This thesis reports on research undertaken to better understand resistance to the cereal cyst nematode (CCN) (*Heterodera avenae*) in barley (*Hordeum vulgare*) conferred by the recently identified Rha4 locus. It includes functional investigation of three xylanases as prime candidate genes. This encompassed heterologous expression of the xylanase proteins in bacteria, generation of transgenic lines in susceptible and resistant barley cultivars subsequently tested for rates of nematode infection and RNAsequencing analysis of resistant and susceptible infected and control roots across a time course. Rates of nematode infection were also investigated corresponding to root polysaccharide content and structure, particularly mixed-linkage beta glucan.

Dr Ana Hranilović

For a thesis entitled: Managing Ethanol and Sensory Compounds by Non-Saccharomyces Yeasts

Thesis abstract: Non-Saccharomyces yeasts harbour untapped oenological potential that can be harnessed to manage the ethanol content and sensory properties of wines. This thesis describes: (i) the potential of commercially available non-Saccharomyces inocula to modulate the chemical composition and sensory profile of Shiraz grapes; (ii) the selection and characterisation of an indigenous strain of *Metschnikowia pulcherrima* to be used for production of lower-alcohol wines; (iii) the genetic diversity of a *Lachancea thermotolerans* population, and (iv) the oenological performance of *L. thermotolerans* sub-populations.

Dr Supriya Lath

For a thesis entitled: Development and Evaluation of Graphene-Based Adsorbents for Remediation of Soil Contaminants

Thesis abstract: Remediation of soils contaminated with multiple contaminant-types is challenging. In this thesis, novel graphene-based materials were developed for in situ adsorption of persistent soil contaminants of current concern including heavy metals and perfluorinated chemicals. Adsorbents were tested in different environmental conditions and compared with a commercial benchmark adsorbent. The research established that mixed mineral and graphene-based adsorbents provided multiple binding pathways and successfully reduced contaminant-bioaccessibility, demonstrating great potential for use in soil. For effective in situ application of graphene-based adsorbents, it was determined that the risk of soil acidification will require management in order to maintain soil function.

Dr Sijing Li

For a thesis entitled: Selective Use of Winemaking Supplements to Modulate the Chemical Composition and Sensory Properties of Shiraz Wine

Thesis abstract: This study explored the potential for improving red wine mouthfeel properties (an important aspect of wine quality), through the selective application of three commercial winemaking supplements, a maceration enzyme, an oenotannin and a mannoprotein, to modify wine macromolecule composition (i.e. tannins and polysaccharides)

The results provide insights into the compositional variation amongst commercial winemaking supplements, as well as their impact on the macromolecule composition, colloidal state and mouthfeel properties of wine. The knowledge gained from this study will inform winemakers' selection and use of winemaking supplements, especially for fermentation of grapes with compositional deficiencies, such as occurs in under-ripe fruit.

Dr Daniel Menadue

For a thesis entitled: Identification and characterisation of vacuolar proton-pumping pyrophosphatase genes in bread wheat

Thesis abstract: Vacuolar proton-pumping pyrophosphatase (H⁺-PPase) genes significantly improve plant growth and stress tolerance in a variety of plant species. In this thesis, 15 bread wheat H⁺-PPase genes are identified and are shown to vary in expression between tissue types, developmental stages and wheat varieties. The potential of using H⁺-PPase genes to enhance the growth and yield of wheat is assessed through characterisation of transgenic wheat lines, constitutively expressing the Arabidopsis AVP1, and the wheat TaVP1B and TaVP2-B H⁺-PPase genes. Based on phenotypic analysis of these transgenic lines, wheat H⁺-PPases are proposed to influence plant developmental rates and floral transition.

Dr Sarah Margaret Ann Moss

For a thesis entitled: Characterisation of the Auxin Signalling Pathway in *Vitis vinifera* L. cv. Shiraz

Thesis abstract: Auxin is a key regulator of grape berry development, in particular the process of ripening. Understanding the role of auxin during ripening is of both scientific and industrial interest. Analysis of the genes comprising the grape auxin signalling pathway and their transcription during berry development and in response to other phytohormones has revealed a network of interactions involved in auxin's controlling role. Knowledge of the protein-protein interactions fundamental to the signalling control mechanism was studied in heterologous systems. These findings represent an important step in better understanding the processes that regulate grape development.

Dr Jana Lê-Lam-Thùy Phan

For a thesis entitled: Using *Plantago ovata* as a proxy to study plant cell wall polysaccharide biosynthesis

Thesis abstract: *Plantago ovata* has been used as a proxy to elucidate the molecular mechanism of xylan biosynthesis, a plant cell wall polysaccharide. Using natural variation present between *Plantago* species we have shown that glycosyltransferase 61s influence the complexity of xylan backbone branching. A mutant *Plantago ovata* population was also generated and two identified mutants, fugitive and hikikomori, are characterised at length using microscopy, analytical chemistry and bioinformatic techniques. The fugitive mutant shows a significant decrease in xylan accumulation and we have identified a gamma induced mutation in a gene of interest whilst hikikomori appears to have an increase in cellulose.

Dr Kenton Dean Porker

For a thesis entitled: The Physiological and Genetic Basis of Yield Improvement in an Elite Barley Line Adapted to Australian Conditions

Thesis abstract: Crop development is the single most important factor affecting grain yield and adaptation in dry land cropping systems. This thesis dissects the basis of yield improvement in the barley cultivar Compass utilising genetics, modelling, physiology and agronomic management.

Breeders have shortened developmental phases without compromising yield potential in the variety Compass by increasing grain weight and grain number. Compass was less responsive to increasing photoperiod, a new finding for cultivars adapted to Australian environments. The study presents a framework to raise yield potential, and provides the most up to date information on the environmental modulation of crop development.

Dr Mary Joy Retallack

For a thesis entitled: The potential functional diversity offered by native insectary plants to support populations of predatory arthropods in Australian vineyards

Thesis abstract: This study investigated the role that locally-adapted native plants can play in promoting predatory arthropods in order to enhance biological control of vineyard pests in Australia. *Bursaria spinosa*, *Leptospermum continentale*, and *Rytidosperma* ssp. were found to support diverse predator communities, which should attack grapevine pests. *Epiphyas postvittana* was confirmed as the most common tortricid pest in South Australian vineyards. *Acropolitis rudisana*, *Merophyas divulsana*, and *Crociosema plebejana* were also found in grapevine canopies. These findings should help wine grape growers to suppress pests by enhancing the biodiversity of their vineyards.

Dr Sugiyono Saputra

For a thesis entitled: Antimicrobial resistance in companion animal pathogens in Australia and assessment of pradofloxacin on the gut microbiota

Thesis abstract: Antimicrobials are not only considered as beneficial agents but are also potentially harmful by promoting antimicrobial resistance (AMR) and disruption of gut microbial communities.

Focusing on these two major detrimental effects, this thesis provides two significant outcomes: firstly, an important baseline on the current level of AMR among the two major groups of companion animal pathogens as part of the first nation-wide survey of AMR in Australian animals; secondly, evidence on the minor disruptive effect of pradofloxacin, a new veterinary fluoroquinolones, on gut microbial diversity in rabbits to support the clinical safety of pradofloxacin for treating infections in rabbits.

Dr Amanda Michelle Schapel

For a thesis entitled: Carbon Storage in Sandy Soil Amended with Clay. Examining the Relationship of Organic Carbon Concentration to Clay Concentration, Clod Size and Distribution

Thesis abstract: Sandy soils are important for agricultural production in Australia but often have low organic carbon (OC) because of low clay concentration. Clay from the subsoil can be added to sandy topsoil in form of clods which differ in size. In this project, various field sites where clay was added were sampled. Incubation experiments were conducted to assess potential of clay clods to bind OC and then store it. Subsoil clay addition to sand increased OC storage compared to unamended sandy soil. The addition of many, smaller-sized clods (≤ 6 mm), evenly distributed throughout the depth of amendment optimised OC storage.

Dr Olaf Jan Schelezki

For a thesis entitled: INVESTIGATION OF AN EARLY HARVEST REGIME AND PRE-FERMENTATIVE BLENDING

TREATMENTS TO PRODUCE LOWER ALCOHOL WINES: IMPACT ON GRAPE AND WINE COMPOSITION AND QUALITY

Thesis abstract: The combination of increasing average temperatures and extreme weather events has induced accelerated grape ripening in recent decades, hampering optimal harvest timing and exposing grapes to the risk of shrivel. This can translate into excessive wine alcohol levels and poor sensory qualities. To easily mitigate this trend, a suggested pre-fermentative blending approach with water or very low alcohol wine was assessed and compared to wines produced from earlier grape harvest dates. When earlier harvesting of grapes is not feasible, implementation of water in particular could manage wine alcohol levels without greatly effecting important wine quality markers or sensory properties.

Dr Habtamu Seboka Tura

For a thesis entitled: Towards the positional cloning of yield QTL on chromosome 1B for drought tolerance in wheat

Thesis abstract: Drought and heat can decrease grain yield up to 70 percent. Quantitative trait loci (QTL) controlling yield and plant growth rate under drought and heat stress conditions were identified on chromosome 1B in three interlinked mapping populations. The QTL were positioned on the genomic region of chromosome 1B and found co-locations at three major QTL hotspot regions. The co-located yield QTL was fine mapped from 17 Mbp to 2.2 Mbp, and 11 candidate genes that underly grain yield under dry and hot climate were identified. The findings described in this thesis could be used by breeders in wheat improvement programs.

Dr Xiujuan Yang

For a thesis entitled: Roles of a Glutamyl-tRNA Synthetase in Controlling Early Anther Development in Rice

Thesis abstract: In seed propagated plants, the formation and development of the male reproductive organ, the anther, is indispensable for plant propagation. Understanding the molecular mechanisms determining anther development in important crops will benefit fundamental biology and agricultural practice.

This project reports that a rice glutamyl tRNA synthetase maintains proper somatic cell organisation and limits the over-proliferation of male germ cells during early anther development. This protein is an important node for multiple metabolic pathways, and affects the redox status in anther cells. Barley genome contains two highly similar homologies in terms of sequences and expression patterns, indicating conserved functions.

Dr Yanchen Zhang

For a thesis entitled: Effects of drying-rewetting, previous and current soil water content on soil respiration, microbial biomass and nutrient availability in soils without or with plant residues differing in C/N ratio

Thesis abstract: Soil water content is a major factor influencing organic matter turnover. Organic soil amendments e.g. plant residue can improve soil fertility. The aims of the study were to determine how soil respiration, microbial biomass and nutrient availability are influenced by drying and rewetting and current and previous water content in soils without or with plant residues differing in C/N ratio. It can be concluded that soil water content influences organic matter decomposition and therefore nutrient availability, particularly in soil amended with low C/N residue whereas drying and rewetting has only small and transient effects.

Additional AWARDS

Faculty of **ARTS**

Diploma in Languages

Lukas John Papagiannis

Faculty of **PROFESSIONS**

ADELAIDE BUSINESS SCHOOL

To the Degree of Bachelor of Commerce (Corporate Finance)

Timothy James Eastwood



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PUBLICATIONS

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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

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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.

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