Murdoch University

GRADUATION CEREMONY

CEREMONY 2

TUESDAY 10 FEBRUARY 2026

Acknowledgment of Country

Murdoch University is situated on the lands of the Whadjuk and Binjareb Noongar people. We pay our respects to their enduring and dynamic culture and the leadership of Noongar elders past and present. The Boodjar (country) on which Murdoch University is located has, for thousands of years, been a place of learning.

We at Murdoch University are proud to continue this long tradition.

ORDER OF PROCEEDINGS

The audience is requested to stand during the Academic Procession.

Academic Procession

Welcome to Country

Chancellor's Address

Presentation of Awards

School of Agricultural Sciences

School of Environmental and Conservation Sciences

School of Medical, Molecular and Forensic Sciences

School of Veterinary Medicine

Presentation of Higher Degrees

Vice Chancellor and President's Address and Charge to Graduates

University Awards

Valedictory Address

Academic Recession

Please note that photographs and footage will be taken at this event. Please contact the event organiser if you have any concerns or if you wish to be exempt from this activity.

CHANCELLOR'S MESSAGE

It is my great pleasure to congratulate you on the successful culmination of your course of study with Murdoch University.

Your degree equips you with the skills you need for an exciting career in your chosen field, along with the capacity for creativity, curiosity and critical thinking that are the foundation stones of a rich, rewarding life.

I know from personal experience the power of a Murdoch education. Many years ago, I was able to enrol by correspondence as a mature-aged student, the mother of three young children. After achieving my degree, I pursued a varied and exciting career in public life – one that led to my eventual appointment as Chancellor of Murdoch University!

I am therefore supremely confident that the knowledge and values you have learned as part of your Murdoch experience will give you the tools to understand our world and bring about change for the better.

The privilege of a university education should compel you to not only seek out a wonderful career, but to use your skills to give back to society, to make your mark, to truly make the world a better place.

As a valued Murdoch alumni, I also hope that your graduation will not be the end of your Murdoch experience – and that you remain connected to your alma mater through the many professional and personal rewards offered by our Office of Alumni and Philanthropy. Graduates of Murdoch University, I congratulate you on your accomplishments and wish you continued success as you embark on the next exciting stage of your life's journey.

Yours sincerely,

Gail McGowan PSM
Chancellor

CHARGE TO GRADUATES

Graduates, it is my great honour to welcome you to the fellowship of educated people.

The award of a university degree carries many privileges but like all privileges it also carries responsibilities. As graduates of Murdoch University, I urge you to use what you have learnt for your own betterment and for the benefit of the community.

I encourage you to use the skills and knowledge you have acquired with rigour and integrity and to commit yourselves to a program of life-long learning and discovery. I invite you to remember the lessons Murdoch has taught you about the worth of others, particularly those who have not had the opportunities that you have had.

At all times you should strive to set high goals and to continue the hard work that has brought you so far.

And finally, in all you do, I charge you to be deserving of the good name of Murdoch University.

Professor Andrew J Deeks
Vice Chancellor and President

PRINCIPAL OFFICERS OF THE UNIVERSITY

Visitor
The Honourable Chris Dawson APM, Governor of Western Australia

Chancellor
Ms Gail McGowan PSM

Deputy Chancellor
Emeritus Professor Robyn Owens AM

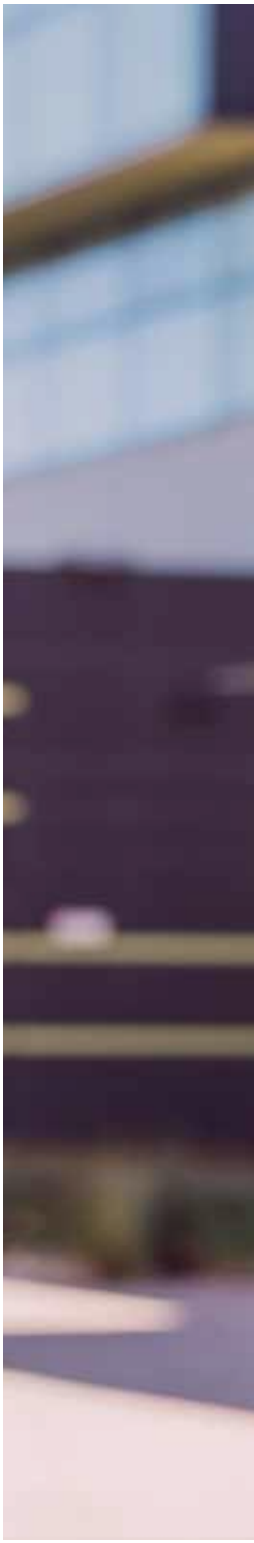
Vice Chancellor and President
Professor Andrew J Deeks

Deputy Vice Chancellor Research and Innovation
Professor Peter Eastwood

Deputy Vice Chancellor Education
Professor Don Klinger

Deputy Vice Chancellor Global Engagement
Professor Simon McKirdy

President of Academic Council
Associate Professor Garth Maker



ACADEMIC DRESS

The gowns worn today have their origins in the lay costumes of the early Middle Ages.

Regalia Colours

Discipline

Agricultural Sciences	*Green*
Allied Health	*Grey*
Business	*Tan*
Clinical Chiropractic	*Light Green*
Education	*Gold*
Engineering and Energy	*Orange*
Environmental and Conservation Sciences	*Green*
Information Technology	*Orange*
Law and Criminology	*Violet*
Mathematics and Statistics, Chemistry and Physics	*Green*
Media and Communication	*Blue*
Medical, Molecular and Forensic Science	*Green*
Nursing	*Yellow*
Psychology	*Grey*
Social Sciences and Arts	*Blue*
Veterinary Medicine	*Purple*

Research

Master of Philosophy	*Cream*
Research Masters With Training	*Cream*
Doctor of Education	*Gold*
Doctor of Information Technology	*Orange*
Doctor of Philosophy	*Red*
Doctor of Psychology	*Grey*
Doctor of Veterinary Medical Science	*Purple*

Higher Degrees

Doctor of Economics	*Tan*
Doctor of Literature Royal	*Blue*
Doctor of Science	*Green*
Doctor of Veterinary Science	*Purple*

Honorary Degrees

Doctor of the University	*White*
Doctor of Letters Royal	*Blue*
Doctor of Laws	*Violet*

GRADUANDS

School of Agricultural Sciences

Graduate Certificate in Plant Biosecurity

Sarah Jane GAINSFORD

Bachelor of Agricultural Science

Austin ABBOTT

Malak Nazmy Kamel ABDOU

Emily Brooke ADAMS

Ryan Mitchell ANDERSON

Matthew Richard BRAKE

William Francis BROWN

Kira Louise BUNTER

CHAN Man Kwan Megan

CHEW Fong Lam

Tshetrim CHODEN

Molly Elizabeth CRAIGIE

Gideon DE JAGER

Nim DEM

Angelique DOIG

Abeygale Seema FERNANDES

Aleeya GALKA

Christine May Xin Hui GEE

Marnie Jess GRIFFITHS

Grace Jillian HALL

Natascha HAMPL

Mia Kim HANCOCK

Leonie Bianca HANKEL

Samantha Amy HENTTONEN

Cameron Richard JAMES

Natasha Kathleen KEEN-SMITH

Cheuk Lam LAI

Roisin Tira LEAHY

Jarod LETCHFORD

Xinjie LI

Jennifer Margaret LODGE

Vaishnavi Sujay MALI

Amelia Claire MATHEWS

Charlynn NG Jia Syuen

Shakira PARSONS

Samantha PEARSON

Eloise Allegra SCHOUTEN

Brooklyn Olivia SETH

Sabrina Darselio SETIAWAN

Ming Wai SIN

Natcharee SIRISUPASATE

Jarrad Lee SYMES

Yan Tung TSUI

Alisha Brooke VAN ZON

Remon Badry Wesly WAHBA

Chelsea WILLOCK

Kenric Bradley Michael Hampton WILTSHIRE

Melinda WOODARD

Faizan Ahmad YAHYA

Bachelor of Agricultural Science and Bachelor of Business

Tristan Henry WEIBEL

Bachelor of Science

Deanne KIKER

Braeley Elizabeth SCHENK

Master of Biosecurity

Kiara Elise HUTCHINSON

Master of Food Security

Tshering CHODEN

Lhawang CHOKI

Sonam CHOKI

Tashi DEMA

Ugyen DENDUP

Tharani Madhavi Weerawanni Divigalpitiye Weerawanni Mudiyanselage

Lhendup DORJI

Yonten DORJI

Madan Kumar GHALLEY

Babita GURUNG

JEPKEMBOI Faith

Mandeep KAUR

Rinchen KHANDU

KIRI GAMAGE Prasad Senaka

LHAMO

Jamyang LHAZIN

Kuenzang NAMGAY

Kuenzang NIMA

Comfort ONYAGA

PASANG

Tshering PEM

Sonam PHUNTSHO

Abdullah RAFIQUE

Kinley SELDON

Jaspreet SINGH

Deshika Siriwardane SIRIWARDANE SANDAPALA ARACHCHIGE

Kevin Ombonyo SITAKA

Karma TENZIN

Kezang TRASHI

Kinley TSHERING

GRADUANDS

Pema TSHERING
Pema TSHOMO
Sonam TSHOMO
Tshering TSHOMO
Yangchen TSHOMO
Changa WANGMO
Choki WANGMO
Phurpa WANGMO
Tenzin WANGMO
Tenzin WANGMO
Youthra WANGMO

School of Environmental and Conservation Sciences

Graduate Diploma in Environmental Science

Lachlan BONHAM

Tayla Kate HORLEY

Harry MORSE

PHAM Thi Thai Ha

Georgia Felicity Kathleen RADLEY-KOHRS

Bachelor of Science

Kellie Anne AINSWORTH

Shannon Lynette AMEN

James Bernard ARTHURSON

Danielle Zohar AZRAN ALEMBERG

Bronwyn Elizabeth BRIMS

Jocelyn Loudon BROWN

Sarah Elizabeth BURTON

Olivia Grace BUTLER-BLAXELL

Bethany Hannah CARMODY

Jacob CARRELLO

Verity Bella COX

Sienna Desray CUFF

Teal Sandra CUFF

Toby Jake DAVEY

Laura Hillary DAVIES

Daniella Dominique DEARY

Hope Charlotte DIXON

Seyon DOBSON

Keely Jaye EDWARDS

Adele Charlize EVANS

Breanna Marree Margaret EWEN

Shaelee Rose FINNEGAN

Lochlan GAULT

Erin GREENWOOD

Alix Jade HARRIS

Siraphatson HEMKOM

India Sky HENDERSON

Isabella HUGGINS

Phoebe Margaret HULL

Charlotte Olivia HUNTER

Oscar Ray HUNTER

Sarah June JACKSON

Corinne Sian JOHNSEN

Agata Julia KURZECKI

Selina Shu Ting LAI

Kimberly Grace LANTER

Pauline Marie LECOCQ

Cullen Jonathan MACKIE

Eboni Jayde MACKIE

Emma MATHERS

Jasmine Wai Phyo MAUNG

Erin Rose MAYFIELD

Indie-Lee MULVAY

Kelton MULVAY

Shelby Louise NICHOLSON

Reilly Charles OLIVER

Jasmine PITT

Thomas PURTICH

Emily RENNER-SHAO

Madeleine Grace SCHOENAUER

Kieren SCOTT

Courtney SEWELL

Natalie SHAVE

Zahra Keely SIJKA

Erryn SINCLAIR-BUCKLEY

Lucy Antoinette SPOORS-JARDINE

Sonja SPRENGER

Charlee STAGBOUER

Georgia Rose STROTHER

Alexandria TAYLOR

Ella Kathleen THOMPSON

Hayden VAITEKENAS

Sarah WALTERS

Anna Forrest WEDGWOOD

Samantha WESTPHAL

Allyson Rose WHATLEY

Emily Rose WHEAT

Erin WOODS

Emma Karen WYLIE

Daniel Robert WYNN

Bachelor of Science Honours

Kathleen Angel GABIANA

Evelyn GEURTS

Amy Jessica LOCKLEY

Abigail Rebecca NEEDHAM

Ella STAPLE

Caitlin WARD

GRADUANDS

School of Medical, Molecular and Forensic Sciences

Graduate Certificate in Food Science

Carminda DILLON

Graduate Diploma in Forensic Science (Professional Practice)

Ebtehal Mohammed A BRIKEET

Arden Scanlan DICKER-LONGTON

Bronte GEYER

Erica Nguyen PETER

Sarah POLLARD OLIVER

Claudia SPUTORE

Emily Beatrice WRIGHT

Bachelor of Food Science and Nutrition

Angus William ADAMSON

Grace CROSS

Ashley Reign DANCEL

Muneeba FATIMA

Rachel Hui Qi KONG

Phoebe Isabel LAW

Olivia Anne MAIOLO

Eden Grace MCBROOM

Anesu Lisa MUSEZA

Syeda Nida Batool NAQVI

Britney PARKER

Thomas James RENK

Liam SHELLEY

Joel Lincoln Halley TINETTI

Bachelor of Laboratory Medicine

Himeka DAN

Rebecca GROVER

Claire HINE

Carissa Yen Hui LIM

Hasini Geethika LIYANA BANDARAGE

Zahra MOZAFARI

Gurleen SAHOTA

Afrilina SARI

Shannon Elizabeth SMITH

Shirjana TAMANG

Bachelor of Science

Yasmin Hassan ALI

Carl Lawrence Salunayan ANYAYAHAN

Fraser Elliot BEARD

Monique Anna BLASIAK

Anita BOOM

Erin BROWN

Ashley Kate BURSTON

Tahlee Rose CALE

Breanna CAMPBELL-SMITH

Shreestika CAULLY

Ethan Aaron CHAPLIN

Donald Charlton CHIZUNI

CHOI Monica

Aimee Grace CLARK

Loki Daniel COLE

Lauren Amy DANIELS

Jay Thomas EDWARDS

Milly ELDRED

Salpadoruge Sahan James FERNANDO

Prabhdeep Singh GILL

Ethan Francis HOLDER

Hannah Elizabeth JACOBSEN

Tiana Teresa LA GALIA

Holly Grace MECZES

Epiphanie NDAYISHIMIYE

Jing Wen Alena NG

Nadine ODENDAAL

Chelsea Dianne PEERLESS

Joshua Richard PETTY

POH Qiu Yi

Michael SAPIENZA

Mouzam Mohamadnazim SHAIKH

Hiya SHARMA

Megan SMITH

Pongkwan SRIVISUT

Ronen Glyn STURROCK

Brendon Hugo VENTER

Vukan VUJACICH

Danielle Joy WHARRIE

Bachelor of Science/ Bachelor of Laboratory Medicine

Christopher Paul MALLON

Bachelor of Science Honours

Elizabeth Ayla AIRD

Sophie CHAPMAN

Laura Marie PETROVSKI

Jessica Ellen SCOTT

Jessica Tayla SMITH

Ainslie Shaye TALBOT

Master of Forensic Science (Professional Practice and Research)

Alisha Molly ADRIANO

Kezang DOLKAR

Anysha GROSSMAN

Ella Darcy HARDY-ATKINS

Tabitha Rachel LEE

Nathan MCCULLOCH

Jovan NESVANULICA

Yeshi YANGDEN

Master of Forensic Science (Professional Practice)

Gladys KONONO

Jordan LECKIE

GRADUANDS

School of Veterinary Medicine

Graduate Certificate in One Health

May Soe AUNG

Khounphet MONGKHONGKHAM

Bachelor of Science

Anja Martina HIELSCHER

Bachelor of Science and Doctor of Veterinary Medicine

Nigel Tau AUN

Breanna Louise BARRACLOUGH

Emma Jane BELL

Hui Wen Josandi BOH

Bella BULLOCK-MARKS

Christine BUTT

Jodi Lin CAHI

Georgia Rose CAVANAGH

Tsz Ying CHAN

Zhen Yu CHEN

Chantel CHEW Fang Xuan

Gwenda Jia-Yen CHEW

Ashleigh CHILCOTT

Wen Rhian CHONG

Ching Tung CHUNG

Zoe CLARK

Jane Rachel CLARKE

Jayden Michael CRAVEN

Olivia Caitlin DARBY-JONES

Christina Amy Eva DREW

Hei Wing FUNG

Victor GAN HAO CHI

Naomi Grace GOULD

Ashrita HARINARAYAN

Matthew Cade HATCH

Mattea Leigh HOCEVAR

Emily Jade HOVELL

Emma Catherine JOHNSON

Shaun KENT

Shyan KOH

Jie Shi KUAN

Megan LAMPRECHT

Aaron James LANGENBERG

Xanthia Wen LEE

Joshua Lachlan LEWIS

Cole LIM

Alexander LOVEL

Sze Wai Saralisa LU

Hiu Yan LUI

Nethra Baktha MAHESHWAR

Eloisa Tatiana MALET

Grace Anne MILLICHIP

Charisse Hui Ning NEO

Stefanie Cara NG

NG Yue Ning

Hannah Rachel NIEVES

ONG Charlyn Chin Ling

Melani Gabrielle ORTEGA-WHITE

Kayla Jasmine PAGER

Sung Hi PARK

Emma Louise PATTERSON

Wei Kai PHANG

Jasmin PHUA

Amy PICKERING

Hayley Barbara POON

Gemima Mary RAHMAN

Shirley Shamini RAMESH

Katy Helen REID

Rosheen Xian RICHARDS

Leah Patricia RYAN

Satvir SEKHON

Gabrielle Ruth Hellen STAFFORD

Quinlan Suzanne STONE

Deva SUBRAMANIAM

Jewel Azaria TAN

Kelley Kang Ern TANG
Elizabeth Shannon TAO
Naomi TAYLOR
Sheryl Pei Yee TEO
TRINH Weng Yan Amber
Chloe TRURAN-BONE
Erin TURNER
Tasha Rachelle WARREN
Ebony Louise WHITE
Ann-Katrin WOLF
WONG Jiaxuan Charisse
Rei-I WOO
Nellie Rose WORBOYS
Da Yeol YOUN

Bachelor of Science and Doctor of Veterinary Medicine With Distinction

Tong Xin CHAN
Tze Shan CHOONG
Juliana CUTHBERT
Trinity Jo Katherine ELSOM
Sarah Amy GIRDLER
Pynn Le Rachel LIM
Amelia MCINTOSH
Jessica Kathryn PARRIS
Andres SCHRIER
Tyra Joy Marie SIMONS
Carla SWART
Yan Hui Lyn TAN
Jinyi TAO
Blaine THOMPSON
Gabrielle WALDRON

Master of Veterinary Clinical Studies

Andy YEH

HIGHER DEGREES BY RESEARCH

Master of Female Physiology (Research)

Jennifer Elizabeth MCGLYNN

Metabolomic Insights into Female Energetics: Analysing Substrate Utilisation Pathways in Eumenorrheic and Oral Contraceptive-Using Female Athletes

This thesis introduces a novel metabolic phenotyping approach to examine how the high-hormone phase of the menstrual and oral contraceptive cycle influence substrate utilisation at rest. Blood plasma metabolites associated with the tricarboxylic acid cycle, glycolysis, lipolysis, and amino acid oxidation were measured, revealing no differences between the cycles at rest. Although no significant differences were observed, the work contributes to addressing the persistent underrepresentation of females in exercise-related research.

Dr Nathan Lawler (Murdoh University), Professor Jeremiah Peiffer (Murdoch University), Dr Nicola Gray Whiley (Murdoch University)

Master of Marine Science (Research)

Eva Louise ROBINSON

Trends and determinants of nest failure in flatback turtles (Natator depressus) across the North West Shelf genetic stock

Nest success provides an early measure of environmental pressure and hatchling production in marine turtles. We analysed long-term data from the NWS flatback turtle stock to evaluate spatial and temporal patterns in nest outcomes and the influence of air temperature and rainfall. Increased egg mortality was associated with higher mean air temperatures, with evidence that some rookeries may be nearing thermal limits. Identifying vulnerable and resilient rookeries is crucial for targeted conservation and long-term population stability.

Dr Adrian Gleiss (Murdoch University), Dr Sabrina Fossette (Department of Biodiversity, Conservation and Attractions)

Master of Medical Science (Research)

Alyssa Paige Kathleen MILLS

Urinary Metabolites for the Non-Invasive Diagnosis of Endometriosis Phenotypes

Endometriosis is a chronic disease affecting 1 in 7 women in Australia, with a diagnostic delay of 8 to 11 years worldwide. This thesis applied a metabolomics approach to identify urinary signatures associated with endometriosis in comparison to non-endometriosis controls. Biologically relevant signatures were identified that support the potential of metabolomics to reduce diagnostic delays, support early screening, and enhance the understanding of the pathogenesis of endometriosis through analytical pathways.

Dr Nicola Gray Whiley (Murdoch University), Dr Samuele Sala (Murdoch University)

HIGHER DEGREES BY RESEARCH

Master of Philosophy

Rebecca Lorraine BATEMAN

Rays of light: A multifaceted investigation into the distribution and ecology of globally threatened, large-bodied rhino rays in Western Australia

Large-bodied rhino rays, including sawfish, wedgefish and giant guitarfish, are poorly understood and globally threatened. This study used citizen science, fisheries data, research surveys and acoustic tracking to map distribution and habitat use in Western Australia (WA). Northwestern WA held high species diversity and important reproductive areas. Rhynchobatus spp. were widely distributed and showed size- and sex-based spatial segregation. Juvenile Glaucostegus typus were resident in shallow bays, revealing nursery habitats that warrant protection. Western Australia represents an important refuge for these globally threatened large-bodied rhino rays.

Dr Karissa Lear (Murdoch University), Assoc Prof. David Morgan (Murdoch University)

Master of Sustainable Aquaculture (Research)

Demi Lorraine BESTRY

The role of exercise training in enhancing growth and stress tolerance in silver perch (Bidyanus bidyanus)

My thesis investigated whether sustained exercise conditioning could improve growth and environmental resilience in juvenile silver perch. Exercise increased body condition and heat tolerance without raising feed requirements. However, exercise did not enhance hypoxia tolerance and heat tolerance benefits were lost after four weeks of detraining. These results demonstrate that exercise training is a promising and accessible strategy to enhance the health and climate change resilience of aquacultured fish.

Dr Essie Rodgers (Murdoch University), Dr James Tweedley (Murdoch University)

Master of Veterinary Surgery (Research)

Thomas David Chisholm WOODS

Computed tomographic tenography of the equine carpal flexor tendon sheath and subsequent description of a novel medial surgical endoscopic portal

This manuscript sought to document the anatomy of the equine carpal flexor tendon sheath (CFTS) using plain and contrast computed tomography (CT) and subsequently advise on an appropriate site for a medial tenoscopy portal in the CFTS. Not only was the anatomy of the CFTS documented, but new structures were identified, the distal termination of the CFTS was found to be further distal than previously reported and the use of CT imaging, particularly the use of contrast CT, was validated as a diagnostic tool when investigating orthopaedic disease in this region of the horse. The enhanced understanding of the anatomy also allowed for the identification of the ideal medial tenoscopic portal, which will improve surgical exploration of the CFTS. Clinical application is the logical next step to substantiate these findings.

Associate Professor Barny Fraser (Murdoch University), Dr David Byrne (Murdoch University)

Doctor of Philosophy

Akilandeswari Ashwini BALACHANDRAN

Precision nucleic acid therapeutic molecules for tackling cancers and neurological disorders

Antisense oligonucleotides (ASOs) and aptamers have significant roles in therapeutic and diagnostic applications. ASOs bind specific regions of gene, thereby modulating its expression. ASOs developed against EGFR and PDGFA reduced respective gene expression, thereby hindering cancer cell growth. EGFR targeting ASOs modified with cholesterol and vitamin E were successfully delivered into cells. The aptamers generated specifically bound to NFL protein, which could be used for early diagnosis of neurological disorders.

Professor Steve Wilton (Murdoch University) , Professor Sue Fletcher (Murdoch University), Associate Professor Rakesh Veedu (Murdoch University)

HIGHER DEGREES BY RESEARCH

Shikun CHEN

Breed-specific responses to mild scrotal heat stress: effects on spermatogenic cells, endocrine function, signalling pathways and semen quality in Wugu-Hu and Hu rams

This research investigates the impact of heat stress on male fertility in rams and examines why certain breeds are more resistant than others. Importantly, the study demonstrates clear breed differences in heat stress tolerance at the cellular level, which helps explain variations in germ cell heat tolerance and offers insights for improving sheep breeding under rising environmental temperatures.

Associate Professor Peter Irons (Murdoch University), Dr Henry Annandale (Murdoch University), Por Qingjie Pan (Qingdao Agriculture University), Professor Huansheng Dong (Qingdao Agriculture University)

Stephen Louis CONNAUGHTON

Calibration and standardisation of Dual Energy X-ray Absorptiometry to predict lamb carcass composition in Australian abattoirs

This research has allowed for the standardisation and calibration of multiple prototype dual energy x-ray absorptiometry scanners, operating in Australian lamb abattoirs at the speed of production, for the prediction of lamb carcass composition in real-time. These steps were required to accredit the device for the legal trading of lamb on this composition trait, which is far more accurate than any other existing option, improving the efficiency and quality of the Australian lamb supply chain.

Professor Graham Gardner (Murdoch University), Dr Fiona Anderson (Murdoch University), Dr Kham Kelman (Murdoch University)

Mariam DOUALEH

Addressing Diagnostic Challenges in the Detection of Polymicrobial Bacteraemia Using Molecular Microbiological Tools

This research examined why standard blood culture testing can miss certain bacteria in bloodstream infections involving multiple species. By comparing culture-based methods with more sensitive molecular approaches, the study demonstrated that molecular tools can detect additional pathogens overlooked by culture and provide faster results. The findings underscore the importance of integrating molecular and traditional techniques to enhance the accuracy and speed of sepsis diagnosis and treatment.

Dr Andrew Currie (Murdoch University), Professor Sam Abraham (Murdoch University), Associate Professor Matthew Payne (UWA), Professor Geoffrey Coombs (Murdoch University)

Xiaoxu HAN

Convergent and divergent evolution of furanocoumarin biosynthesis in Angelica

This study assembled the genomes of five Angelica species and constructed metabolomic maps of furanocoumarins (FCs) between Angelica s.s. and Angelica s.l. clade. I verified nearly all downstream FC-modification enzymes and uncovered gene compositions and arrangements of the FC biosynthetic gene cluster (BGC) driving divergence between the two Angelica clades. These findings offer new insights into the molecular and evolutionary strategies shaping FC diversity and provide a valuable foundation for future research in metabolic engineering and crop improvement.

Associate Professor Garth Maker (Murdoch University)

Md Robiul HASAN

Perspectives on the consumption of shark products: sustainability of fisheries, seafood labelling, and human health

My PhD thesis investigates some of the many challenges surrounding the production of sustainable, ethical and healthy shark products for human consumption. The findings highlight the poor quality of product labelling in Australian fish and chip shops and provides information about consumers knowledge of and attitudes to these problems. The results can assist managers, policymakers and other stakeholders in developing evidence-based solutions to this complex problem.

Dr Jennifer Chaplin (Murdoch University), Associate Professor Peter Spencer (Murdoch University), Dr Matias Braccini (DPIRD)

Tayler Catherine KENT

Functional and metabolic changes to male reproductive cells after exposure to common herbal medicines

This thesis investigated the biochemical changes that male reproductive cells, including spermatozoa, Leydig cells and Sertoli cells, undergo when exposed to herbal compounds that are commonly included in dietary supplements and herbal medicines. Changes consistent with disrupted energy metabolism and cellular signalling were observed in all cell types, and spermatozoa demonstrated a significant increase in oxidative stress and DNA damage. These findings advance our understanding of the pharmacology of these products, which are widely used in Australia.

Associate Professor Henry Annandale (Murdoch University), Associate Professor Gabriele Rossi (Murdoch University), Dr Kelsey Pool (UWA)

HIGHER DEGREES BY RESEARCH

Qing LI

Investigating male sterility in potato: a multi-omics landscape of anther development and developing Dominant Gene Male Sterile (DGMS) lines by gene editing

This research investigated the molecular regulation of male sterility in potato to support hybrid potato breeding. It characterised anther development in detail, identified fertility-related genes using transcriptomics and lipid metabolism analyses, and validated candidate genes using CRISPR-Cas9 gene-editing. Editing of the upstream open reading frame (uORF) generated dominant male sterile lines, providing a novel strategy for developing stable hybrid potato seeds and so improving the efficiency of potato breeding.

Professor Michael Jones (Murdoch University), Professor Yonglin Ren (Murdoch Univesity), Professor Chunzhi Zhang (Chinese Academy of Agricultural Sciences)

Yisha MA

Evaluation of the heat tolerance and synergistic mechanism of phosphine fumigation combined with heat treatment on fruit fly

Phosphine fumigation combined with heat (P+H) or controlled atmosphere temperature treatment (P+CATT) showed synergistic effects against tephritid fruit flies, with B. correcta being most heat-tolerant. P+CATT was most effective. The P+H treatment suppressed heat shock protein responses via MAPK/ERK signaling and HSF-1 dephosphorylation. It enhanced B. dorsalis mortality in dragon fruit with less heat exposure and did not adversely affect fruit soluble solids or acidity, despite slightly inhibiting respiration.

Dr Penghao Wang (Murdoch University), Professor Tao Liu (Chinese Inspection and Quarantine), Dr Manjree Agarwal (Murodch University)

Rachel MARKS

Key factors influencing the population dynamics of economically important short-lived invertebrate species in Western Australia

My PhD research investigated the impacts of environmental factors on two short-lived, economically-important crustaceans. Growth of Blue Swimmer Crabs in Cockburn Sound varied with primary productivity and crab density, and reduced productivity combined with heavy fishing pressure may account for its lack of population recovery. For White Banana Prawns in northern Western Australia, biomass, catchability, but also fishing mortality were positively related to summer rainfall. Overall, this research highlights the importance of incorporating environmental factors when modelling populations of short-lived species occupying dynamic environments.

Dr James Tweedley (Murdoch University), Professor Neil Loneragan (Murdoch University), Dr Alex Hesp (DPIRD)

Noviani Setyadi MINAEE

Comparative and Integrative Mapping of Obesity and Cardiometabolic Risk Across Populations Using Lipidomics and Lipoproteomics

My research applied lipidomic and lipoproteomic analyses to understand how molecular changes in circulating lipids relate to body weight and cardiometabolic disease risk. Using advanced statistical and machine-learning approaches, I identified methods that improve both prediction and interpretation. The findings reveal how obesity alters lipid metabolism and provide new insights into cardiometabolic health across diverse populations.

Professor Elaine Holmes (Murdoch University), Dr Samantha Lodge (Murdoch University), Professor Kevin Wong (Murdoch University)

Victor Okorie MKPUMA

Dual strategies to mitigate the microalgal harvesting challenges: surface-attached biofilm cultivation and fouling-resistant membrane filtration

This research investigates strategies to address key challenges in microalgal biomass production and recovery. It focuses on biofilm cultivation, the integration of effluent treatment with biomass generation, and antifouling membrane filtration techniques. The study demonstrates that biofilm-based cultivation enhances growth efficiency, improves effluent remediation, and simplifies biomass harvesting compared with suspension systems. These findings provide a pathway toward commercial viability and large-scale application of microalgae-based wastewater treatment technologies.

Dr Houda Ennaceri (Murdoch University), Professor Navid Moheimani (Murdoch University)

Louise Nicole PIVAC

Sleep Improvement: A Preventative Therapy to Reduce the Risk for Cognitive Decline

This research investigated the bidirectional relationship between sleep, cognition, and Alzheimer's disease biomarkers. Across four novel longitudinal studies, suboptimal sleep was associated with faster cognitive decline and altered brain biomarkers. Importantly, a world-first intervention study showed improved sleep was associated with preserved cognitive function in those at higher risk of cognitive decline due to elevated brain beta-amyloid. These findings highlight suboptimal sleep as a modifiable risk factor and suggest sleep improvement as a simple, non-invasive preventative strategy for cognitive decline.

Associate Professor Stephanie Rainey-Smith (Murdoch University), Associate Professor Belinda Brown (Murdoch University), Professor Hamid Sohrabi (Murdoch University)

HIGHER DEGREES BY RESEARCH

Mathieu Clement RAILLARD

Characterisation of dynamic compliance of the respiratory system in anaesthetised dogs

Dynamic compliance of the respiratory system (Cdyn), a key measure of respiratory function, was investigated in anaesthetised dogs. A survey of veterinary professionals highlighted widespread use of spirometry but revealed inconsistencies in Cdyn interpretation. A literature review confirmed variability in measurement techniques and reporting. Equipment assessment demonstrated significant inaccuracies in spirometry. A multicentre study identified key factors affecting Cdyn, challenging the applicability of a reference interval. This thesis provides a basis for standardising Cdyn monitoring in veterinary anaesthesia.

Dr Anthea Raisis (Murdoch University), Professor Robert Shiel (Murdoch University), Dr Martina Mosing (University of Zurich), Dr Olivier Levionnois (University of Bern)

Jayden Lee ROBERTS

Microsampling-Based Metabolic Phenotyping: Innovations and Enhanced Techniques for Comprehensive Lipid and Lipoprotein Profiling

Jayden's research explored the use of finger-prick blood samples as a simple and less invasive alternative to standard blood collection. He demonstrated these samples provide results equivalent to venous blood for lipoproteins and inflammation markers, and he developed a method to analyse over 400 lipids from dried blood spot samples. These methods were also translated to a diabetic cohort, supporting future at-home metabolic health monitoring.

Dr Nathan Lawler (Murdoch University), Dr Luke Whiley (Murdoch University), Dr Nicola Gray (Murdoch University), Dr Melvin Gay (Bruker Pty Ltd)

Nataliya SLATER

Characterisation of B cells and antibodies targeting cytosolic 5'-nucleotidase 1A in inclusion body myositis.

Inclusion Body Myositis (IBM) is a devastating muscle disease with no current treatment. Many patients develop antibodies that mistakenly target their own muscles, but the reasons remain unclear. The B cells that produce these antibodies are rare and difficult to study. In this thesis, I developed new molecular tools to examine these cells directly and identified their key features, helping pave the way for future targeted therapies for IBM.

Professor Merrilee Needham (Murdoch University), Associate Professor Tim Fairchild (Murdoch University), Associate Professor Rakesh Veedu (Murdoch University), Dr Jerome Coudert (University of Toulouse)

Melissa Cathrine TAYLOR

Effective Methods for Robust Population Estimates of a Nocturnal Predator: The Chuditch (Dasyurus geoffroii) Across the South-West, Western Australia

This thesis provides the first robust population estimation protocol for the chuditch, addressing a long-standing need for improved monitoring techniques for this threatened, Western Australian marsupial. The method is suitable for broadscale use and is already being taken up by industry, with major benefits for conservation management. Beyond the chuditch, the approach taken can be used to improve monitoring techniques for other species.

Dr Kate Bryant (Murdoch University), Professor Mike Calver (Murdoch University), Dr Nicola Armstrong (Curtin University), Dr Adrian Wayne (DBCA)

Pengfei ZHANG

Exploration of Alginate oligosaccharide (AOS) promoting Lactobacillus reuteri Y15 growth and production of potential beneficial metabolites and their mechanisms

This thesis investigates the interactions between Lactobacillus reuteri Y15 (LRY15) and alginate oligosaccharides (AOS), a prebiotic generated from seaweed. Important results demonstrate that AOS specifically boosts LRY15 growth through glycolysis stimulation and mannose absorption mediated by the MFS transporter. Additionally, it also enhances LRY15's production of beneficial metabolites (e.g., omega-3 fatty acids, antioxidants), highlighting AOS-LRY15's potential for functional foods and gut health therapies.

Professor Yonglin Ren (Murdoch University), Dr Bob Du(Murdoch University), Professor Yong Zhao (Qingdao Agricultural University)

Wenjuan ZHANG

Exploration of sulfuryl fluoride and ozone combinations as a fast fumigant for quarantine purposes and management of phosphine resistance

This study highlights the efficacy of sulfuryl fluoride (SF) and ozone co-fumigation as a synergistic, eco-friendly method for the control of all stages of stored grain insects, including resistant strains. The treatment effectively reduces fluoride residues, grain quality is preserved, and seedling vigour is enhanced. SF is stable chemically with ozone and promotes safe co-application. This process offers a high-performance, low-residue alternative to traditional fumigation methods, addressing pest resistance and providing post-harvest protection of grain and environmental safety.

Dr Penghao Wang (Murdoch University), Professor Yonglin Ren (Murdoch University)

HIGHER DEGREES BY RESEARCH

Yujia ZHANG

Adsorptive Behavior of Ethanedinitrile in Stored Grain Systems and Its Metabolic Impacts on Wheat and Insects

Widespread insect resistance to current fumigants threatens global food security. This research investigated the fumigant ethanedinitrile (EDN), examining its sorption to grain, its impact on wheat quality, and its unique toxic action. The key finding is that EDN overcomes resistance by simultaneously disrupting insect metabolism and physically destroying their protective outer cuticle. This work identifies a vital new tool to protect stored food supplies.

Associate Professor Garth Maker (Murdoch University)

Qingying ZHAO

Irradiation of high-risk Insect pests: Phytosanitary Control of Pseudococcus baliteus and Hypoxia-Induced Radioprotection in Zeugodacus cucurbitae

This study evaluated phytosanitary irradiation for quarantine pest control and its oxygen-dependent efficacy. An internationally applicable irradiation schedule was established for the aerial root mealybug. Using the melon fly as a model, a critical oxygen threshold for radioprotection was identified, and key molecular mechanisms were revealed. These findings support the optimization of irradiation standards and enhance the reliability of phytosanitary treatments in international trade.

Professor Simon McKirdy (Murdoch University), Professor Yonglin Ren (Murdoch University), Professor Guoping Zhan (Chinese Academy of Inspection and Quarantine), Dr Bob Du (Murdoch University)

UNIVERSITY AWARDS

University Medallists

University Medals recognise outstanding academic achievement by undergraduate students across all disciplines of Murdoch University. The University awards ten medals each year. Recipients will be announced during the ceremony.

Valedictorian Address

Valedictorian is awarded to one exceptional student. The recipient will be announced during the ceremony and invited to deliver the Valedictorian Address.

Murdoch University **Alumni**

As a graduate of Murdoch University, we welcome you to the Murdoch Alumni Family - a growing international community of over 116,000 alumni.

Recent graduates studying at one of Murdoch's Western Australian campuses may be eligible for a 25% discount on select postgraduate courses. Also, alumni who are not recent graduates, can enjoy a 10% discount from their course.

There are many opportunities to be an active and engaged Murdoch alumnus through activities such as joining your local alumni network, mentoring current students, volunteering on University Boards and Committees or at Murdoch events.

After 50 years as a leading educational institution, Murdoch University has a wealth of incredible graduates. From leaders in politics, business and research, to alumni working for the environment, or on the coalface of community development, our graduates are making a difference across the globe.

With many local, national and international events and reunions held every year, our e-newsletter Echoes, and the alumni magazine Murmur, there are many reasons to stay connected with Murdoch University.

For full details of the benefits and services available to you as a Murdoch alumnus, and to update your contact details so we can stay in touch, please visit our website: **www.murdoch.edu.au/alumni**
We also encourage you to join our alumni social media group: **www.linkedin.com/company/murdoch-university-alumni/**

Congratulations on achieving a big milestone.

Welcome to the Murdoch alumni family!

Murdoch University
Philanthropy

Murdoch University is committed to making our world a better place through outstanding research and educational opportunities. As one of our talented alumni, you too can have an impact when partnering with your university.

Our alumni are all at different stages of both their lives and careers, and contribute to their community in both big and small ways. As they mature, many choose to invest in our students and research through philanthropic support.

The Office of Alumni and Philanthropy works to link alumni, leading businesses, individuals, and community-minded groups with opportunities at Murdoch. Avenues for support can be via bequests, major gifts, annual and regular giving or sponsorships and can contribute to advancing world leading research, providing academic positions, purchasing equipment, further capital development and funding life changing scholarships for our students.

Our Philanthropy team is here to help you explore opportunities, connect to the University, and realise joint aspirations through financial and in-kind donations. They cultivate and steward key relationships by uniting individuals and organisations with Murdoch's philanthropic priorities, to use our academic strength and resources to make the world a better place together.

We invite you to become involved in your community's future by reaching out to our office at any time for an exploratory conversation.

If you are ready to support now, contact the Philanthropy Team via phone **(+61) 8 9360 6211** or email **philanthropy@murdoch.edu.au**

To support one of our impactful initiatives scan the QR code opposite.

LEARN MORE

Printed on 100% recycled paper.

Ngala kwop biddi.
Building a brighter future, together.

Murdoch University