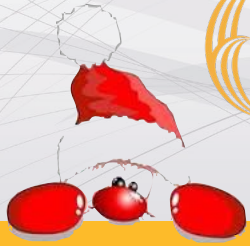




University
of Otago
ŌTĀKOU WHAKAIHU WAKA

Te Tari Kikokiko
Department of Anatomy



THE INSIDE STORY

Issue 51, December 2024



Award winners (from left to right) Diane Guevremont, Dr Rebecca Bird, Dr Rob Munn, Ross Marshall-Seeley, and Professor John Reynolds

Outstanding achievements recognised

The Anatomy flag flew high at the School of Biomedical Sciences (BMS) Research and Teaching Awards 2024, scooping five of the thirteen awards on offer. The awards recognise outstanding contributions of academic and professional staff to teaching and research throughout the School's five departments and two programmes.

Anatomy staff whose outstanding achievements this year were recognised were:

- Professor John Reynolds - Distinguished Researcher Award
- Dr Rob Munn - Emerging Teacher Award
- Dr Rebecca Bird - Pacific Peoples Award
- Diane Guevremont - Research Support Outstanding Contribution Award
- Ross Marshall-Seeley - Teaching Support Sustained Contribution Award

Congratulations to our award winners, and to all our staff who have contributed immensely to another vibrant and busy year of teaching, curriculum planning, exam marking, research work, publications, conference presentations, managing our body donor programme, outreach in the community, and pastoral care of our students. Let's do it all again in 2025!

From the HoDs desk



Professor Greg Anderson

Kia ora koutou

Firstly, a massive thanks to you for all the varied roles you have performed this year with diligence and professionalism. Becoming HOD opens the shutters on the responsibilities of a lot of people who are integral to the smooth running of our Department, many of whom I knew very little about previously. It really is a privilege to have such a high degree of administrative, financial, managerial and academic support that a new HOD would have to try pretty hard to stuff things up.

2024 has had plenty of successes and causes for celebration in Anatomy: several appointments to positions of responsibility on national and international scientific bodies, academic promotions, an honorary doctorate, grant success from Marsden, MBIE and other funders, numerous BMS awards, and well over a hundred journal papers co-authored. We're enjoying more taura Māori and Pacific students in our undergraduate and postgraduate programmes than ever before. And we have a new VC and a new PVC that (in my opinion) seem to have our back.

That said, I'm pretty certain that 2025 will be as financially austere as this year was. If anyone had suggested in 2022 that we'd have at least 2 years with a departmental research budget of \$0, I wouldn't have believed them. While we've been able to plough on (thanks to your perseverance), we urgently need to find a pathway towards being able to manage our situation better. I can assure you that our School Executive appreciates this need acutely, and is doing all it can to change or ease the current restrictions on the very activities that underscore our successes.

As always, most of us feel overdue for a break by the time the teaching year is wrapped up, so please take time out to recharge your batteries over the Christmas-January period. Keep the Christmas fare and gifts simple, set an out of office autoreply and don't send work emails during the time when everyone is on holiday. Finally, remember that in the big picture we have an enormous amount to be thankful for, when so many others will mark Christmas with food and housing insecurity, political madness or even the threat of being bombed. It can be hard to find the balance between staying aware of wider events and still feeling able to enjoy the good things around us. Perhaps the best we can do is be grateful for the good things we have.

Meri Kirihimete,
Greg

Service celebrates, honours donors

Around 250 staff and students along with family and friends of our donors gathered in Dunedin in September to celebrate and honour those who have so generously donated their body to the department's body donor programme.

University Vice-Chancellor, the Hon Grant Robertson, welcomed everyone to the special service of reflection, remembrance and gratitude. Health Science and Science undergraduate and postgraduate students provided music throughout the service, along with their own touching messages of respect, appreciation and thanks for the wonderful gifts that have supported their learning of anatomy in their journey to becoming the next generation of doctors and allied health professionals.



The Pacific Island Health Professional Students' Choir performs during the service

Guest speaker Dr CC (Chaolan) Zheng, a Medical Registrar at Middlemore Hospital, touched on her experiences as a medical student at Otago, and how completing the Postgraduate Diploma in Surgical Anatomy had enhanced her ability to visualise the body in 3D, an important skill for all surgeons to have. Dr Zheng also had a special message for the medical students in the room ... "Never forget the sacrifices and hope people from all walks of life have placed on you. Lean into it because the weight of suffering can inspire great change."

Some photos of the service can be found on page 9. The 2025 service will be held in Christchurch. Please contact the department on bodybequests@otago.ac.nz if you would like more information.

Congratulations ...

Research will help provide relief for those in chronic pain

Dr Jerin Mathew has been awarded an Early Career Research Grant from the International Association on the Study of Pain (IASP). IASP is the world's largest association of scientists and clinicians solely dedicated to the treatment of pain. This is the first time the grant has been awarded to a pain researcher based in New Zealand. This achievement highlights the global importance of pain research in New Zealand and its ongoing impact in addressing one of the world's most pressing health challenges.

Dr Mathew says he is honoured to be the recipient of such a prestigious grant. "The grant will support our research which explores a novel, non-invasive Brain-Computer Interface-Neurofeedback (BCI-NF) therapy to help individuals manage persistent neuropathic pain." Chronic pain affects one in five New Zealand adults, with many experiencing debilitating and persistent neuropathic-like symptoms.

To learn more about Jerin's research, visit the [IASP website](#).



Dr Jerin Mathew

Researchers elected to International Federation

Two Anatomy researchers were elected to key positions within the International Federation of Associations of Anatomists (IFAA) at the Federation's congress in South Korea recently. The IFAA incorporates 57 anatomical associations worldwide, including the Australia and New Zealand Association of Clinical Anatomists, that focus on the development and promotion of all anatomical sciences.

Professor Helen Nicholson, a past Head of the Anatomy Department and most recently the Acting Otago Vice Chancellor, was elected President of the IFAA, while Professor Steph Woodley was elected to be one of the Secretaries of the IFAA. Professor Woodley has also recently been elected President of the Australian and New Zealand Association of Clinical Anatomists.

To learn more, read the story on the [University's website](#).



Professors Helen Nicholson and Steph Woodley

Research and advocacy recognised

Professor Louise Parr-Brownlie's advocacy for health equity in older adults, particularly Māori and Pacific communities, has been recognised by Age Concern New Zealand with a Huia Award. The Awards are an annual celebration of New Zealand's older people and those who support them. The Huia feather is a sacred treasure for Māori, symbolising leadership and mana. Huia feathers were traditionally given as tokens of friendship.

Professor Parr-Brownlie was one of three recipient's to receive a Huia Award at a reception held at Parliament in September.

Her research focuses on neuroscience, particularly the advancement and understanding of movement disorders such as Parkinson's disease. Louise was the Director of the Ageing Well National Science Challenge. Her leadership in this area has been instrumental in fostering interdisciplinary research and mentoring the next generation of scientists, making her a transformative figure in the field of ageing and health.

To learn more about Age Concern and the Huia Awards, go to the [Age Concern website](#).



Prof Louise Parr-Brownlie (centre) at the awards night with her sister Amy and husband Gordon

400-level Poster Day

Kirsten Rutten was awarded the best overall poster at the department's 400-level Poster Day in October. Her poster "Gold for Cash and an Inflamed Rash" gave an overview of the prevalence of syphilis and gonorrhoea during the Otago gold rush days.

Using archival patient records from Dunedin and Dunstan Hospitals from 1864-1869, Kirsten's Honours research looks at who was affected by these diseases, how they were perceived, and how associated stigma altered how they were treated (both medically and socially), especially for the women who were labelled as prostitutes.



Kirsten Rutten with Assoc Prof Jane Girling

More Congratulations ...

Theses awarded exceptional status

Congratulations to the following students whose PhD theses were judged to be of an exceptional standard by the University of Otago's Division of Health Sciences in 2024.

Claudia Davies

"DNA demethylation in pluripotency and cancer"
(Primary supervisor: Associate Professor Tim Hore)

Cassandra Glanfield

"TET catalytic domain specificity in cells and ageing"
(Primary supervisor: Associate Professor Tim Hore)

Tim Moser

"Manipulating sex using epigenetics and the ribosome"
(Primary supervisor: Associate Professor Tim Hore)



Top students in Anatomy receive awards

The department recently celebrated the achievements of the top students in Anatomy. The awards recognise sustained achievements throughout the year in undergraduate and postgraduate studies.

The award recipients are:

Professor Gareth Jones Prize for 200-Level BSc

Awarded to Dharini Gandevia - best BSc (Anatomy major) student who gained the highest grades in 200-level ANAT and BIOA papers.

Professor Gareth Jones Prize for 200-Level BBiomedSc

Awarded to Kayleigh Garner - best BBiomedSc (Reproduction, Genomics and Development) student who gained the highest grades in 200-level ANAT and BIOA papers.

Dr Elspeth Joan Gold Prize for 300-Level BSc

Awarded to Daisy Couper - best overall grades in 300-level ANAT and BIOA papers.

Assoc Prof Gina Forster Prize - postgraduate

Awarded to Kirsten Rutten - the postgraduate student with the overall highest grades in 400-level papers.

Postgraduate Paper Prize

Awarded to Celine Camon for her journal article in which she was the first author: Camon, Prescott, Neyt, Decourt, Stout, Campbell & Garratt (2024) Systemic metabolic benefits of 17 α -estradiol are not exclusively mediated by ER α in glutamatergic or GABAergic neurons. *GeroScience* (46), 6127-6140.



Professor Steph Woodley, Kirsten Rutten, Celine Camon and Professor Greg Anderson

Royal Society award recognition for prosthetics research

Associate Professor Yusuf Cakmak has received the Royal Society Te Apārangi Charles Fleming Senior Scientist Award. The award recognises the ground breaking progress Yusuf and colleagues are making in the area of neuroprosthetics, developing non-invasive wearable devices which stimulate the nervous system to enhance and help restore hearing.

The award will provide additional funding for the team to continue their research on the detailed neural networks within the ear.

To learn more, read the story on the [University's website](#).



Associate Professor Yusuf Cakmak

And the Congratulations continue!

Forensic Society in very good hands

Dr Jade De La Paz has been re-elected Secretary to the Executive Board of the Australian and New Zealand Forensic Science Society (ANZFSS) at their AGM held in Melbourne in November.

Jade was also supporting our very own undergraduate student Esme Hewitt at the AGM. Esme is a Forensic Analytical Sciences and Anthropology double major student. She was granted the only spot representing the New Zealand branch at the AGM. Esme gave a presentation at the AGM which from all accounts was very well received. Well done Jade and Esme!



Esme Hewitt and Dr Jade De La Paz

Marsden Grant Success

Congratulations to Professor Sian Halcrow and Dr Kaj Kamstra who were both successful in receiving funding from the recent round of Marsden funding from the Royal Society Te Apārangi.

Sian has received a grant to support her research on the bioethics of the use, curation, and repatriation of anatomical skeletons in Aotearoa. The study aims to assess the bioethical and cultural perspectives on historical anatomical skeletal collections, exploring respectful pathways for their ongoing care and management.

Kaj has received a Faststart grant for his research on understanding how the brain governs sex change in fish: why can the New Zealand spotty wrasse change sex while other species can't? A very interesting question indeed! The spotty wrasse is a native species of fish. In adulthood, female fish can transform into males when the single dominant male in a group is absent. Kaj is a Postdoctoral Research Fellow in the Gemmell research group.



Prof Sian Halcrow



Dr Kaj Kamstra

Remembering our donors

At the end of every year, members of the gross anatomy team visit the memorial rose garden at Anderson Bay Cemetery to remember and give thanks to the wonderful people who have so generously donated their body to the donor programme.

A plaque in the garden where the ashes of our donors are scattered, is dedicated to the memory of all those who have gifted themselves for the education and training of our young health professional students.



New Surgical Skills Suite

A purpose built dissecting room facility on the fourth floor of the Hercus Building was officially opened and blessed by Kaumatua Hata Temo in June. The Hercus Surgical Skills Suite will provide much needed additional space for the department to expand its student intake into the Postgraduate Diploma in Surgical Anatomy. The space will also be used for second-year dental practical labs, and various workshops and clinical training sessions.

The space on the Hercus fourth floor previously housed the university's animal surgical facilities.

To learn more about this new facility, read the article in the University's [Otago Bulletin](#).



Gumboot Friday

Staff and students were encouraged to ditch their usual footwear in favour of a comfy pair of gummies in support of Gumboot Friday. Gumboot Friday is a nationwide fundraising campaign which helps provide funds for young New Zealanders to be able to access free mental health support. A variety of gumboots (clean and dirty!) were seen on the day. The department raised \$50 for the charity.

More information about Gumboot Friday is available on the [Gumboot Friday website](#).



Stepping out in style ... Dr Joe Yip, Prof Greg Anderson, Kathryn McClea, Djuna Elkan, and Sara Ferreira

Meet our summer research students ... on Facebook!

Throughout the summer we will be posting bios on our Facebook page of some of our students who have chosen to spend the summer in the department, working in a research lab. We learn a little bit more about them, the reasons why they have chosen to spend the summer in Dunedin, and the interesting research they are involved in.



To meet our summer research students, go to our [Facebook](#) page. Follow us to keep up-to-date with everything happening in Anatomy!



Moving on to different fields

Professor Christine Jasoni

Professor Christine Jasoni left the Department in August to take up the position of Dean of the Faculty of Agriculture and Life Sciences at Lincoln University in Canterbury.

Born and raised in the United States, Christine moved to New Zealand in 2001. She initially joined the Department of Physiology, before moving upstairs to join the Department of Anatomy. Over the years she contributed immensely to curriculum planning, and teaching into 100-level HUBS, 200-, 300- and 400-level ANAT, and 300-level MICN papers.

Her research focused on how early life events impact the developing brain, with particular expertise in understanding the impact of maternal diet and nutrition, as well as the effect of excess androgens on the female brain. She is an expert molecular biologist and developmental neuroanatomist, and her work has contributed to the understanding of neurodevelopmental disorders like autism and schizophrenia.

She was part of the Centre for Neuroendocrinology (CNE) since its inception, and was the first female PI, paving the way for many others to follow. She formed many impactful collaborations within CNE and with other neuroscience groups around the University, receiving major funding from the Health Research Council and the Marsden Fund.

Christine became Director of the Brain Health Research Centre in 2016, was continually active within the CNE steering committee, and served on a number of expert panels for Health Research Council and the Royal Society. In 2020 she was elected a Ngā Takahoa a Te Apārangi Companion of the Royal Society Te Apārangi. She became Head of the Department of Anatomy in 2022.

Christine was well known for her enthusiasm, strategic decision making, and not being afraid to make the hard or unpopular decisions. We will miss her American/Kiwi accent in the hallways, and hearing her exclaim when someone does well ...
"Anatomy rocks!"

(Thank you to Prof Greg Anderson and Prof John Reynolds for providing much of this information.)



Rachel Lissaman

Rachel Lissaman first joined the Department of Anatomy as a staff member in 2006 in the role of a summer prosector. In 2007 she completed her PGDipSci in the department, and in 2008 was appointed to a Teaching Fellow position in the department.

Over the years she has taught into ANAT, BIOA, DENT, MICN, HUBS and PHSE papers, amassing an impressive 380+ contact hours per year.

She was a major contributor to the redesign of the ANAT 101 (Anatomy for Sport and Exercise) paper which was previously a 200-level paper, and was Convenor of the paper over the past five years, as well as teaching into it. Her enthusiasm to connect with students was evident through her integrated case teaching she took on for the Medical Early Learning Module.

Professor Sian Halcrow said it best when she said ... "Rachel embodies what it means to provide pastoral care, always trying to ensure that students feel seen, supported, and understood. Her commitment to the role—even to the more tedious parts like marking (she seemed to love it!!)—has been a gift to us all. Rachel, thank you!! for everything you've done."

While Rachel has left the department, we will still see her around and she has moved to a position within the Otago Medical School.

(Thank you to Prof Greg Anderson and Prof Sian Halcrow for providing much of this information.)



We are Anatomy!

In case you weren't aware, our academic and research staff fall into six main research groupings within the department. With the recent University rebranding we took the opportunity to reprint our research posters to visually showcase each research group in the department. For more information on all of our research groups, visit the [Anatomy website](#).

Anatomical Sciences Education: Research aims to inform best practice in anatomy education by working closely with students to understand their needs and knowledge uptake. The aim is to improve all aspects of the learning journey.

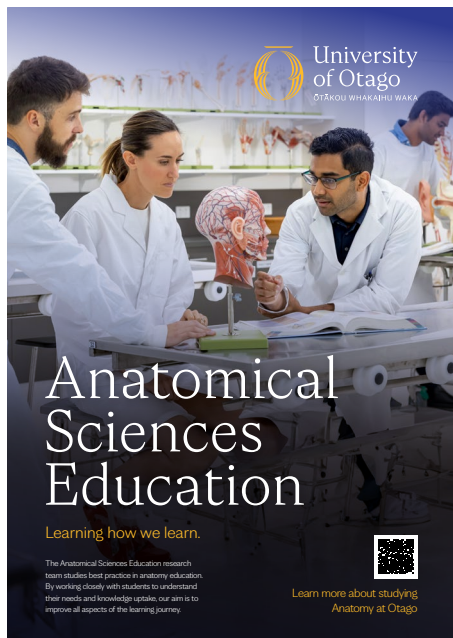
Biological Anthropology: The study of humans from a bio-cultural perspective. Looking into the past to understand human origins and worldwide variation, adaptation to different environments, modern human health, growth, development and more.

Clinical Anatomy: Using state-of-the-art techniques, research explores the structure and function of the body - bones, joints, muscles, ligaments, nerves and fascia - to improve knowledge and patient outcomes.

Genomics: Using cutting-edge genomic techniques to address fundamental questions to develop real-world solutions. Gaining an insight into the genetic basis of complex traits, and how genomic variation contributes to biological diversity.

Neuroscience: Research focuses on understanding how brain cells work together in the healthy brain and what goes wrong in disease with the hope of finding new therapies.

Reproduction and Development: Research explores the co-ordination of systems required to create and fertilise sperm and eggs, as well as the development of systems and structures in the new individual; understanding how hormones affect health.



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Anatomical Sciences Education

Learning how we learn.

The Anatomical Sciences Education research team studies best practice in anatomy education. By working closely with students to understand their needs and knowledge uptake, our aim is to improve all aspects of the learning journey.

Learn more about studying Anatomy at Otago



University of Otago
ŌTĀKOU WHAKAHU WAKA

Biological Anthropology

Understanding our journey.

Biological Anthropology studies humans from a bio-cultural perspective. We look into the past to understand human origins and worldwide variation, adaptation to different environments, modern human health, growth and development, and more. This anthropological perspective contributes to our understanding of many pressing issues for humanity today.

Learn more about studying Anatomy at Otago



University of Otago
ŌTĀKOU WHAKAHU WAKA

Clinical Anatomy

Understanding how we work.

Using state-of-the-art techniques, clinical anatomy research explores the structure and function of the body - bones, joints, muscles, ligaments, nerves and fascia - to improve knowledge and patient outcomes.

Learn more about studying Anatomy at Otago




University of Otago
ŌTĀKOU WHAKAHU WAKA

Genomics

Uncovering how we're built.

Using cutting-edge genomic techniques, we address fundamental questions to develop real-world solutions. We gain insight into the genetic basis of complex traits, and how genomic variation contributes to biological diversity. Our research interfaces with mātauranga Māori and other traditional knowledge systems to ensure a holistic approach that empowers communities and advances genomic research.

Learn more about studying Anatomy at Otago



University of Otago
ŌTĀKOU WHAKAHU WAKA

Neuroscience

Discovering how we think, feel and do.

Our research focuses both on understanding how brain cells work together in the healthy brain and what goes wrong in disease, with the hope of finding new therapies.

Learn more about studying Anatomy at Otago



University of Otago
ŌTĀKOU WHAKAHU WAKA

Reproduction and Development

Exploring how we begin.

Reproduction and Development explores the exquisite co-ordination of systems required to create and fertilise sperm and eggs, as well as the development of systems and structures in the new individual. The research helps us understand how hormones and other factors may affect individual and population health as the individual matures into adulthood.

Learn more about studying Anatomy at Otago

Anatomy Thanksgiving Service

Some images from the Thanksgiving Service held in Dunedin on Wednesday 18 September. Thank you to Mr Chris Smith for taking the photos.



1. Head of Anatomy Prof Greg Anderson; 2. Rachel Parkinson; 3. Medical Students Acapella Choir; 4. Tiara Das, Emma Hollingworth, Akhila Ramesh and Jordan Macdonald; 5. Chaplain Mike Summerfield; 6. Dr CC Zheng; 7. Vice-Chancellor the Hon Greg Robertson; 8. Photos and candles lit in memory of the donors; 9. Rautaki Hononga/Kaitakawaenga Mr Peter Williamson; 10. Aidan Bamforth, Kianna Kukreja, Neocris Moncada, Analina Namoa, Patrick Topp; 11. Jessica Verkuil and Xing Zhang; 12. Pearl Bir; 13. Emily Adams, Emily Jin, Elyse King, Riya Sarker, Bridget Waghorn.

The last words go to ...

The captain of the ship ... Professor Greg Anderson

Greg has been a member of the department for many years now, but how much do we really know about him? What are his likes and dislikes? And what does he spread on his toast in the mornings? We find out a little bit more about the man behind the HoD desk ...

What is your role in the department?

I've been moving along the Lecturer – Sen Lecturer – Assoc Prof – Prof journey since 2007, teaching reproductive biology and neuroscience and overseeing a research group investigating how the brain coordinates reproductive function. Most recently, I've been HOD for all of 3 months, but I was Deputy HOD for a while a few years back.

Where did you grow up?

Christchurch (attended Christchurch Boy's High School and the Lincoln University). After that I postdoc'ed at West Virginia University and Massey University before ending up here.

Do you play sport or a musical instrument?

Nothing well. I played rugby league (heresy at CBHS) because I was never going to make the first 15 (rugby), and I learnt some piano and guitar until my parents relented and allowed me to quit lessons.

What are your hobbies and interests?

I like DIY jobs around home (a former employer once told me "There are barn builders and kitchen builders – you're more the barn builder type"). I raise a handful of sheep on a small paddock on Ōtūrehua, Central Otago, and can shear one in 10 minutes flat. I'm a longstanding member of a small church in Musselburgh. I've tried to re-acquaint myself with guitar since waiata has become a thing at university (I must say that, in a department the size of ours, there are others out there that can do this too!).

What book/movie/activity can you recommend?

For books, I love historical fiction (most recently Ken Follett's *Century trilogy*) – IMO, history is learnt best when not weighed down by the need for accuracy. I try and intersperse this with something intellectual, which I really enjoy but not in the page-turning way...Richard Dawkins *The Selfish Gene* took ~ 6 months to read, and I skipped bits. Somewhere in between these two genres for me is anything written by Bill

Bryson. For movies – mostly dumb action movies. A more classic and intelligent recommendation, which I saw for the first time a few months ago, is *12 Angry Men*.

What type of music do you enjoy listening to?

Anything, but mostly I come back to 80's music. Going on a road trip with me is like being stuck in a shopping mall.

Now for some serious questions ... Vegemite or Marmite?

Neither unless it's to flavour gravy or cheese toasties, in which case either is fine.

Peanut butter ... smooth or crunchy?

Crunchy, with jam.

Cat or dog?

Dog, preferably not an inside dog (I've had no luck with that, though).

You're hosting a dinner party. Name three people (dead or alive) you would like to invite and why.

Will Smith, Bill Bryson and Pope Francis. Just seems like an interesting mix.



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