MONASH University

Science Faculty

Awards

2017

Banquet Room, Clayton Campus, 31 May 2017

Welcome

Welcome to the 2017 Faculty of Science Awards night.

This is a key event for our Faculty, which celebrates the achievements of our science academic and professional staff, as well as the academic achievements and contributions of our science students.

The Faculty of Science is a vibrant and dynamic learning community – a testament to the wonderful calibre of committed staff and students.

There is much to be celebrated tonight.

This is your night – thank you for your support.

Professor Cristina Varsavsky
Interim Dean, Faculty of Science

The Awards

Excellence in Research by an Early Career Researcher

The award recognises research excellence by early career researchers who are within five years of the start of their research careers.

The Nominees are:

Dr Andrew Frierdich, ARC DECRA Research Fellow, School of Earth, Atmosphere and Environment

Dr Andrew J Frierdich has a proven track record in high impact research publications, demonstrated success in obtaining external research funding, and quality supervision of students. Andrew came to Monash in 2015 and has since built a research group of three PhD and two Honours Students with support from a Discovery Early Career Researcher Award (DECRA) from the Australian Research Council.

Dr Mark T Edmonds, ARC DECRA Research Fellow, School of Physics and Astronomy

Dr Mark Edmonds is an ARC DECRA Fellow who has been awarded the AIP Laby Medal for best honours thesis and the Nancy Millis PhD Prize for best PhD thesis within Science at La Trobe University. Mark's major achievements since coming to Monash are his leading role in the growth of thin film topological Dirac semimetals which led to a number of significant breakthroughs.

Dr Mega Kar, Laureate Research Fellow, School of Chemistry

Dr Mega Kar is a Laureate Research Fellow under Professor Doug MacFarlane's Laureate Fellowship Program. Mega has taken on many responsibilities within the MacFarlane group, including group leader in organic synthesis. In an industry-collaboration project with Toyota, Mega is the primary researcher responsible for reporting to the company and on directions of the research.

Dr Chris Greening, ARC DECRA Research Fellow, School of Biological Sciences

Dr Chris Greening is group leader and lecturer at the School of Biological Sciences. His research has enhanced our fundamental understanding of microbial metabolism and has major implications for global change, disease, and biodiversity. Three years post-PhD, he has an excellent track record including being awarded the prestigious ARC DECRA Fellowship in November 2016.

Dr Tamar Sztal, Research Fellow, School of Biological Sciences

Dr Tamar Sztal has held two research fellow positons and established herself as a skilled scientist in the area of muscle development and disease. Tamar has demonstrated her excellence in the field through leading multiple projects to develop zebrafish models for human muscle disease and spinal cord injury, which have been published in first-class international journals.

Dr Grant Duffy, Postdoctoral Research Associate, School of Biological Sciences

Dr Grant Duffy has been a postdoctoral research associate with the School since 2013. During this time, he has developed a strong research program and publication record and has been integral to the supervision of a number of HDR students. The quality of his work has been recognised by its publication in top-tier journals, citations, invitations to academic meetings, and his leadership of a successful Australian Synchrotron project.

Dr Anita Liebenau, ARC DECRA Fellow, School of Mathematical Sciences

Dr Anita Liebenau's PhD thesis comprises four publications in the field of extremal graph theory, three of which were published in one of the top journal of combinatorics. Her expertise is recognised by invitations to give several talks in some prestigious workshops, including the London Colloquia in Combinatorics. Anita will begin her DECRA fellowship in June 2018.

Excellence in Postgraduate Supervision

This award rewards research supervisors who have undertaken exceptional and unique supervision practices to benefit and enrich the experiences of their research candidates.

The Nominees are:

Professor Philip Andrews, Deputy Head of School, School of Chemistry

Professor Phil Andrews is a firm believer in understanding how his students embrace the challenge of undertaking higher research. Apart from helping his students to learn the requisite technical and academic skills for success, Phil believes in letting them take charge of their own projects. With only one exception, all of Phil's students have completed their PhDs and gone onto successful careers, both locally and overseas.

Professor Alexander (Sandy) Cruden, Head of School, School of Earth, Atmosphere and Environment

After 28 years of supervisory experience Professor Sandy Cruden has observed that many student breakthroughs come from supporting them to try the latest (usually costly) techniques and or travelling to the best, most relevant international conferences and workshops. Sandy fosters team spirit through regular off-campus lunches and weekend get-togethers at his home in the hills, and helping students to access data and state-of-the-art technology through his industry contacts.

Associate Professor Antonio Patti, School of Chemistry

Associate Professor Antonio Patti sees his HDR or PhD candidates as professional co-workers and his supervisory role as one of the benevolent 'boss'. He has inspired a whole generation of students with a perspective on minimising fossil-carbon use, offering a range of projects on particular sources of biomass that have challenged his students.

Faculty of Science Award for Research Impact (Economic and Social Impact)

This award recognises excellence by researchers who have achieved, or are currently achieving, outstanding economic and/or societal impacts.

The Nominees are:

Associate Professor Dr Peter Skands,
School of Physics and Astronomy
Impact: Simulations that enable fundamental discoveries

The main measure of Dr Peter Skand's impact lies in the unusually high citation rates he receives, which testify to a global and broad impact, well beyond his specialisation. Although this impact is still mostly concentrated in academia, in 2012 in particular, CERN announced that a completely new fundamental particle had been discovered, a crucial new piece to our understanding of the universe we inhabit; the Higgs boson. This discovery was the basis of the 2013 Nobel Prize in physics. Both of the experiments that reported this far-reaching discovery, ATLAS and CMS, made extensive use of Peter's simulations.

Associate Professor Steven Siems,
Professor Michael Manton & Dr Yi Huang,
School of Earth, Atmosphere and Environment
Impact: Understanding Australian orographic precipitation

The team has developed a strong, ongoing collaboration with Snowy Hydro and Hydro Tasmania with the aim of better understanding the dynamics and microphysics of orographic precipitation across Australia. The larger goal is to improve estimates and forecasts of this precipitation to improve water management.

Centre for Biospectroscopy, School of Chemistry – Dr Bayden Wood, Dr Phil Heraud, Professor Don McNaughton
Impact: Point-of-care infrared detection and quantification of blood-borne pathogens

The team's publication on the detection of malaria parasitemia using Attenuated Total Reflection (ATR) infrared spectroscopy received the American Chemical Society Editor's Choice for 'Chemistry Likely to Contribute to Humanity'. Since then it has run trials of the technology in Thailand, Papua New Guinea and Laos, which are aimed at detecting asymptomatic carriers of the disease (patients with very low levels of parasitemia who act as reservoirs for further spread of malaria).

Faculty of Science Award for Outstanding Contributions by a Graduate Research Student to the Life of the Faculty/School Community

This award celebrates outstanding contribution/s to the life of the Faculty of Science/ School community, by individuals or teams of graduate research students within the Faculty of Science, that are above and beyond their own research and the expectations of a postgraduate student.

The Nominees are:

KOALA Team (Sebastian Tempone-Wiltshire, Andrew Groszek, Thomas Mawson, Shaun Johnstone, Philip Starkey, Sam Fisher), School of Chemistry.

CHAMPS Team (Jamie Greer, Stephen Michael Danczak, Rebekah Duffin, Ash Rozario), School of Physics and Astronomy.

Dean's Honours List

This award celebrates the achievements of our top 20 students.

The Awardees are:

1. Benjamin John Amiet, Bachelor of Science (Honours)
2. John Kieren Baker, Bachelor of Science and Bachelor of Engineering
3. Claire Fordyce Brace, Bachelor of Arts (Global) and Bachelor of Science
4. Stephanie Frances Gordon, Bachelor of Science
5. Sabryn Aminah Hamila, Bachelor of Science
6. Gregory Ralph Humble, Bachelor of Science
7. Bryan Ladowsky, Bachelor of Science (Honours)
8. Xuan Phung Le, Bachelor of Biomedical Science and Bachelor of Science
9. Kaycee Low, Bachelor of Science (Honours)
10. Taylor James Kearney, Bachelor of Science and Bachelor of Computer Science
11. Antony Samuel Kennet, Bachelor of Science and Bachelor of Laws
12. Rhiannon Katherine Rose Kirby, Bachelor of Aerospace Engineering and Bachelor of Sciences
13. Felix Sidharta Salim, Bachelor of Science and Bachelor of Computer Science
14. Harry Nicolaas Scott, Bachelor of Science and Bachelor of Global Studies
15. Jordon Elizabeth Ann Thompson, Bachelor of Science
16. Kshitija Vaidya, Bachelor of Science and Bachelor of Engineering
17. James Robert Virth, Bachelor of Science
18. James Anthony Walker, Bachelor of Commerce Specialist and Bachelor of Science
19. Kathryn Maree Wozniak, Bachelor of Science (Honours)
20. Tianyu Zhu, Bachelor of Science and Bachelor of Engineering.

Dean's Excellence in Teaching Award

The Dean's Excellence in Teaching Awards recognise and celebrate outstanding contributions to the Faculty of Science teaching programs made by individuals or teams.

The Nominees are:

Dr Jasmina Lazendic-Galloway, Research Fellow, School of Physics and Astronomy

Jasmina has spent the past five years transforming astronomy education at Monash into a dynamic inquiry-based design. What was once isolated lecture and laboratory activities have coalesced into one, using the PACE learning studios. Student reviews of this new style of learning are exemplary, and Jasmina has become a role model in the Faculty for embracing new approaches to teaching.

Dr Russell Anderson, Lecturer, School of Physics and Astronomy

Russell has made a huge impact in 2nd and 3rd year physics education, with a key focus on equipping students with the skills and confidence to tackle computational problem solving. Recognising that our next generation of scientists will genuinely require computational and coding literacy, Russell's students learn how to bring complex problems to life through simulation and visualisation.

The Bachelor of Science Advanced Global Challenges Team

(Dr Rowan Brookes, Dr Susie Ho, Dr Toby Bell, Professor Andrea Robinson, Associate Professor Laura Faulconer, Professor Cristina Varsavsky, Ms Diana Renner, Mr Will Dayble, Ms Barb Macfarlan, Ms Kate Elliott, Dr Theo Papakonstantinou and Mr Evan Lees.)

The establishing of a new degree with such ambitious aims is no small feat. The degree is now into its 4th year. Under the leadership of Dr Rowan Brookes, the Global Challenges team has delivered a course that breaks the mould in the national tertiary science education environment. In breaking free from a solely content and scientific skill focused degree, the course equips students with an appreciation for leadership, entrepreneurship, resilience, project management and the ability to influence.

The Jock Marshall Reserve Team

(Dr David Chapple, Dr Susie Ho, Mr Ricardo San Martin and Mr Bruce Weir)

Since 2013 the JMR Education Team have delivered on an ambitious plan to establish world-class educational resources and remote environmental monitoring infrastructure within the reserve. Motivated by the desire to revitalise and modernise the curriculum in environmental sciences, state-of-the-art technology now captures real-time video, acoustic and scientific data beamed straight into the laptop of every student.

Mollie Holman Doctoral Medal for Science

The Mollie Holman Medal was established in 1998 and is named after the late pioneering physiologist, Emeritus Professor Mollie Holman AO, in honour of her significant contributions to science and education. Each year, a maximum of 10 medals are awarded to doctoral students, who have fulfilled their degree requirements and presented their faculty's best thesis of the year.

The Winner is:

Dr Katherine Anne Harrison, School of Biological Sciences.

Vice-Chancellor's Commendation for Doctoral Thesis Excellence

The Vice-Chancellor's Commendation may be awarded to a nominee who is not ranked first for their faculty, but that the committee feels in any other year could have been a successful Mollie Holman Medal recipient. The Commendation will normally only be awarded to nominees from faculties with 20 completions or more for the year.

The Winner is:

Dr Terrance John Hadlington, School of Chemistry.

Award for Exceptional Service to the Faculty of Science

This award recognises and celebrates exceptional service provided by individuals or teams to advance the Faculty of Science vision.

The Nominees are:

Course Management Office, School of Science, Malaysia Campus –
Annice Chong, Zurina Samsudin, Lee Yong Soon

School Infrastructure and Compliance Team, School of Biological Sciences –
Leesa Hughes, John Arvanitakis, Stewart Crowley and Ricardo San Martin

Faculty of Science Award for Outstanding Author Contribution by a Graduate Research Student to be published by 'Quality' Scholarly Research Output

The purpose of the award is to recognise and celebrate an outstanding contribution by a graduate research student to the authorship of a quality scholarly research output (i.e. Book, Book Chapter, Journal Article, Conference proceeding).

The Nominees are:

Biology

Amanda Pettersen, *Metabolic rate covaries with fitness and the pace of life history in the field*
Jake Martin, The psychoactive pollutant fluoxetine compromises antipredator behaviour in fish.

Earth, Atmosphere and Environment

Andrea Rielli, *Evidence of sub-arc mantle oxidation by sulphur and carbon*
Nicolas Molnar, Interactions between propagating rotational rifts and linear rheological heterogeneities: Insights from three-dimensional laboratory experiments.

Physics and Astronomy

Graham White, *A pedagogical introduction to electroweak baryogenesis.*

School of Science Malaysia

Si Hui Chen, *A novel study based on adaptive metal tolerance behaviour in fungi and SEM-EDX analysis.*

Kuan Shion, *Ong, Burkholderia paludis sp. nov., an antibiotic-siderophore producing novel Burkholderia cepacia complex species, isolated from Malaysian tropical peat swamp soil.*

Faculty of Science Student's Initiative Awards

In their second year, these awards recognise students for efforts beyond academic achievement. This includes special efforts to communicate science to the broader community, and for creating programs for supporting fellow students.

The Winners are:

Community Spirit Award: Anisha Balakrishnan

Young Science Leader Award: Nigel Abello

Science Communication Award: Jake Port

MONASH University

MONASH SCIENCE

Further information
monash.edu/Science

Monash Science on LinkedIn
linkedin.com/in/monashscience

Monash Science on Twitter
@Monash_Science

Monash Science on Instagram
@monashscience

Monash Science on Facebook
@MonashUniScience

Monash Science on YouTube
youtube.com/ScienceMonashUni

Produced by the Faculty of Science Marketing, Media and Communications Office.
Authorised by the Faculty of Science General Manager (Interim).