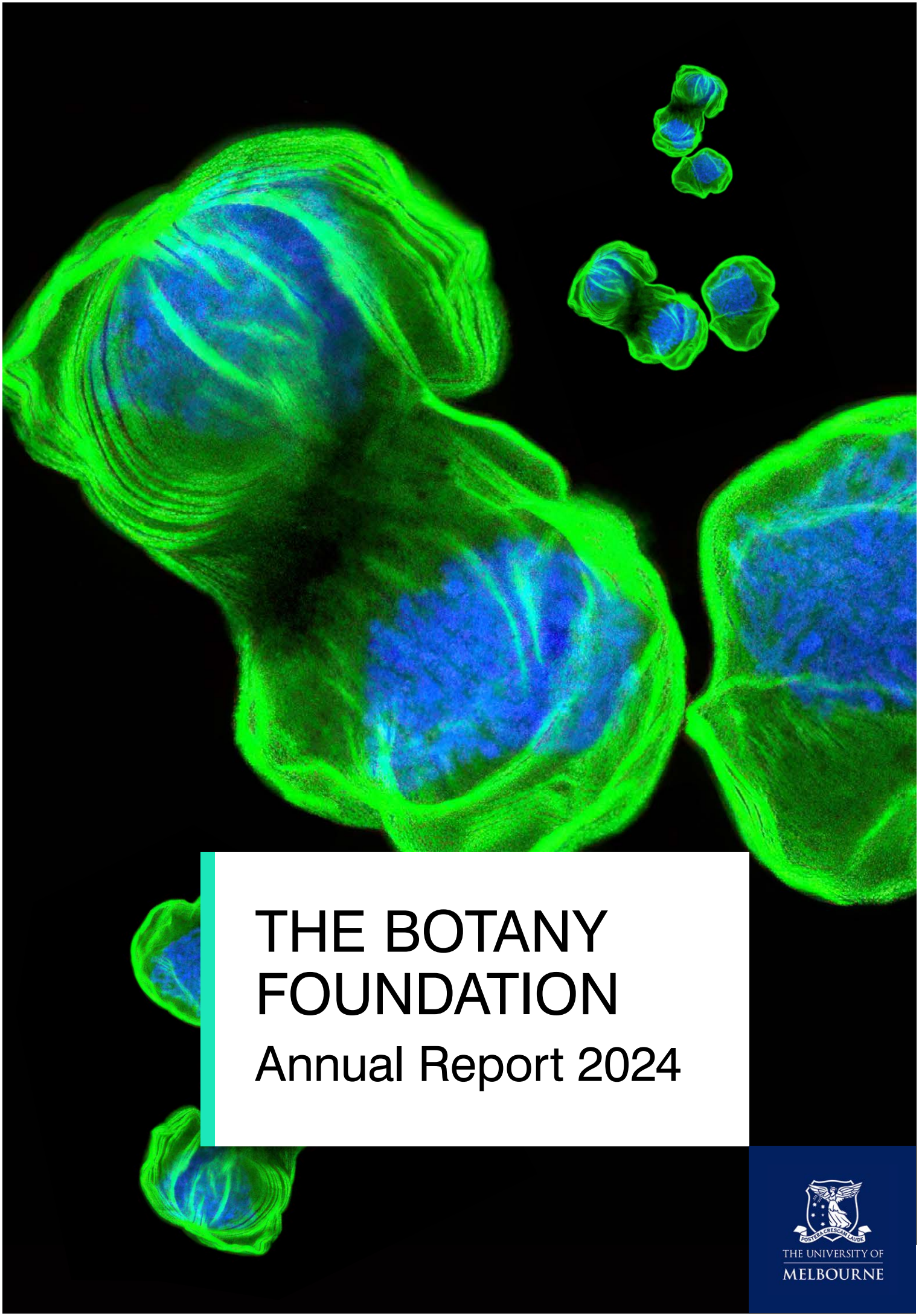
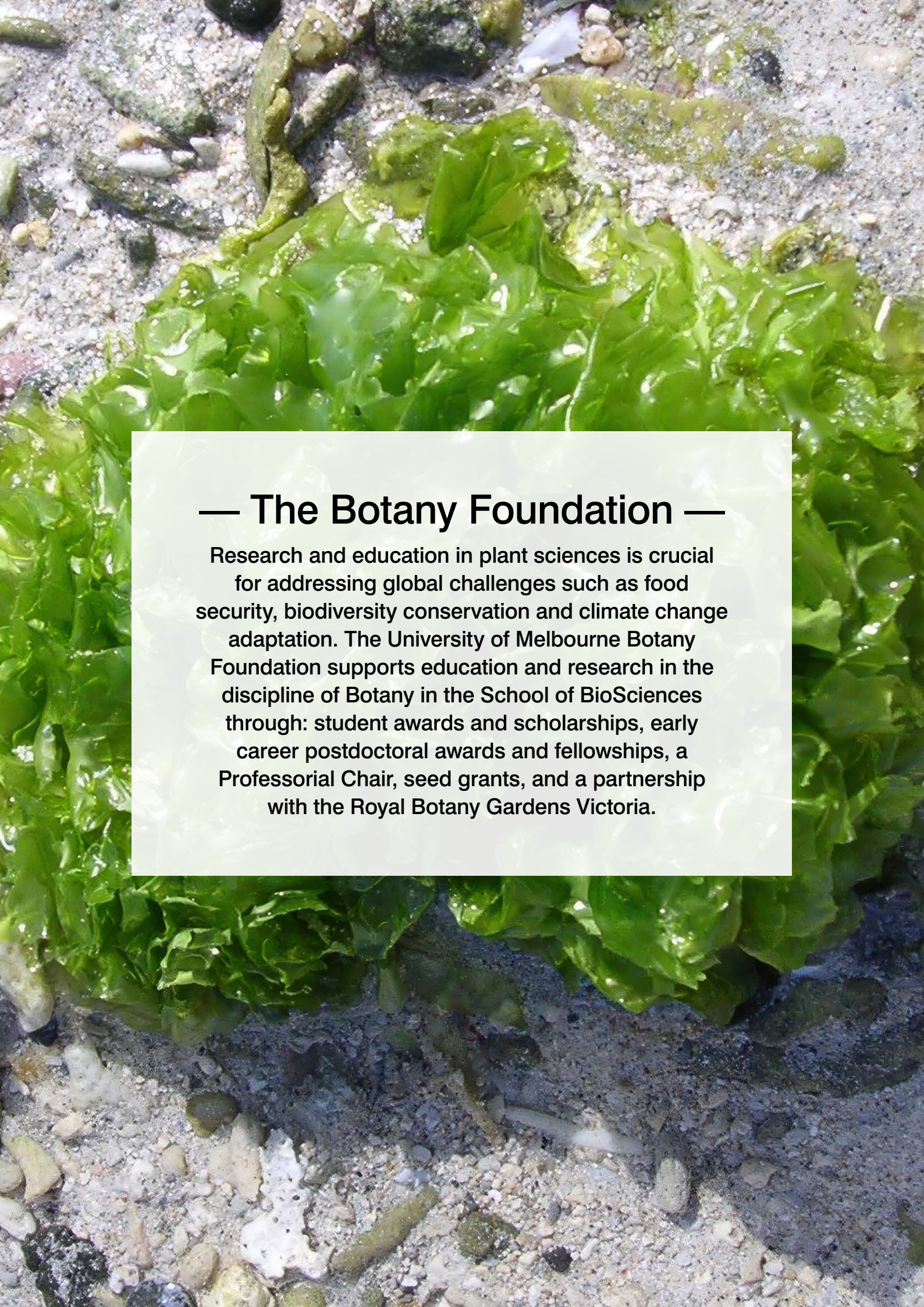


THE BOTANY FOUNDATION

Annual Report 2024

THE UNIVERSITY OF MELBOURNE



— The Botany Foundation —

Research and education in plant sciences is crucial for addressing global challenges such as food security, biodiversity conservation and climate change adaptation. The University of Melbourne Botany Foundation supports education and research in the discipline of Botany in the School of BioSciences through: student awards and scholarships, early career postdoctoral awards and fellowships, a Professorial Chair, seed grants, and a partnership with the Royal Botany Gardens Victoria.

— CONTENTS —

Cover image: Dinoflagellate, Karlodinium veneficum. *Credit: Dr Sven Gould*
Left: Sea lettuce, Ulvophyceae (see story p.8)

Board Members 2024

The Botany Foundation and its endowed sub-trusts are managed by a Board, some of whom (*) have been members since the establishment of the Foundation. The first meeting of the Board was held in 1996 when a fund-raising appeal was launched.

Membership of the Board is specified in the University Trust Regulation governing the Foundation.

Dr Tony Gregson, AM,
External Chairman

Professor Pauline Ladiges* AO,
Deputy Chairman

Ms Sally Browne* AM,
External Member

Professor Adrienne Clarke* AC,
External Member

Professor Edwina Cornish AO,
External Member

Professor Alex Johnson,
School of BioSciences

Associate Professor John King* AM,
External Member

Professor Margie Mayfield,
Head, School of BioSciences

Associate Professor Ed Newbigin
(to 30 June 2024)

Professor Moira O'Bryan,
Dean, Faculty of Science

Ms Rucha Patil,
Postgraduate Student

Professor Michelle Watt
(from 1 July 2024)

Supported by
Ms Robyn Trethowan,
Executive Officer

Left: Caulerpa *green seaweed, Lord Howe Island*

Report from the Botany Foundation's Board Chairman

Board renewal

Renewal of the Foundation Board in 2024 brought notable changes. We farewelled Associate Professor Ed Newbigin who retired after 22 years of invaluable service. We welcomed new members, Professor Edwina Cornish AO and Professor Michelle Watt who bring with them, deep knowledge and expertise in education, research, and university administration. Ms Rucha Patil also joined the Board as the postgraduate student representative. As part of the board renewal process, the Foundation revisited its mission and reaffirmed its strategic aims of supporting the advancement of plant sciences education and research.

Student support

Fourteen scholarships and prizes were awarded to students this year. Four of the student projects are featured in this report (pages 8–11).

Research support

As foreshadowed in my report last year, there was an international search to recruit the third Pauline Ladiges Plant Systematics Research Fellow. I am pleased to report that Dr Rachael Fowler has taken up this fellowship.

We were delighted to continue salary and research support for the Adrienne Clarke Chair of Botany, Professor Michelle Watt and her work in the ARC Centre of Excellence in Plants for Space. Michelle's work will not only advance our understanding of plant physiology and its applications in space exploration but also potentially contribute to sustainable practices on Earth.

Dr Joana Costa received funding from the Protist Systematics Research Fund for her project investigating how different species of dinoflagellate algae are taxonomically recognised by their coral-like hosts. These fascinating microorganisms play a critical role in marine ecosystems and can have significant impacts on ocean health (pages 14–15).

In 2022, an award was established to honour Professor Jeremy Pickett-Heaps whose research in algal cell biology and dedication to mentoring students left a lasting impact on the scientific community. The first award from this fund was made in 2024 to Laura Geissler (page 16). We look forward to seeing how Laura and future award recipients carry forward the spirit of inquiry and discovery that Professor Pickett-Heaps embodied throughout his career.

Bequest received

In 2024, the Herbarium Fund supported the curation of the Herbarium's bryophyte collection. The Herbarium Fund has been supported through both donations and a bequest. Bequests continue to be significant to the growth of the Foundation. These planned gifts allow donors to leave a lasting legacy such as the bequest received in 2024 from the late Helen Rowan that has been added to the Kingsley Rowan Botany Prize to build this fund, which provides an award for the top student in third-year botany.

On behalf of the Board, I express my gratitude to those who have decided to leave a bequest, and to our annual donors. Your contributions make our work possible and we appreciate your trust and confidence in the Foundation and its mission.

Dr Tony Gregson AM FTSE
Chairman, Botany Foundation

2024 Student Scholarships and Awards

Since its establishment in 1996, the Foundation has supported more than 430 botany students through endowed awards and scholarships. This year the Foundation allocated a total of $42,800 to 14 undergraduate, MSc and PhD students. Students may use the funds for personal support or towards their research. Four student research projects are highlighted in the following pages.

Recipient of the 1997 Botany Prize

The Botany Prize*, recognising excellence in a young researcher, has been awarded annually over the last 27 years by the Botany Foundation. Alexander Idnurm, now Associate Professor (Plant Pathology) in the School of BioSciences, was awarded the prize in 1997 as the top Botany student. His outstanding academic achievements that year were also recognised with the Trinity College Medal.

Alex grew up in Canberra, and moved to Melbourne for his studies.

He completed his PhD (1999-2002) research with Professor Barbara Howlett, working on the fungus Leptosphaeria maculans that is the main pathogen impacting the canola industry in Australia and world-wide.

Alex continued his career overseas, as a post-doctoral fellow at Duke University Medical Center (North Carolina, USA) from 2002-2007, before establishing his independent research program at the University of Missouri-Kansas City.

In 2014 Alex returned to the University of Melbourne as an academic staff member of the then School of Botany. His group's research is focused on the molecular biology and genetics of fungi, particularly fungal diseases of agricultural significance, with also a side interest in Australian fungal biodiversity.

**In 2024 the Prize was renamed the Kingsley Rowan Botany Prize.*

Kingsley Rowan Botany Prize

– Top 3rd Year Botany Student

Candice Farrugia-Roberts

Bruce Knox Prize

– Top 4th Year (Honours) Botany Student

Robert Albiston

David Ashton Travel Award

Wing Man Siu

Unravelling the complexities of community root trait responses to environmental gradients through machine learning analysis.

David H. Ashton Scholarship (shared)

Lisa Buche

How does facilitation between species improve predictions of plant community diversity?

Nicholas Chong

Role of transposable elements in the blackleg fungus in its ability to overcome canola cultivar resistance and to develop fungicide resistance.

Sophie Ducker Postgraduate Scholarship

Saelin Bjornson

Molecular evolution in green seaweeds (Ulvophyceae)

Megan Klemm Postgraduate Research Award (shared)

Jose Manuel Sevenello Montagner

Landscape fragmentation and agricultural context impact pollination dynamics of native plant reproduction

Grace Boxshall

Phylogenetic investigation of Agaricus *(Basidiomycota: Agaricales) biodiversity across eastern Australasia.*

Ethel McLennan Award

Anna Philippova

Circadian-regulated dynamics of translation in Arabidopsis thaliana*.*

G.A.M. Scott Research Award (shared)

Marina Alfano

Understanding biodiversity maintenance using horizontal ecological networks.

Yuqun Du

Seaweed speciation and diversity in southern Australia.

John S. Turner Postgraduate Award

Amelia Keynton

Investigating the role of the plant cell wall, cell wall biosynthesis and Golgi dynamics in rhizoplane assembly.

Gretna Weste Plant Pathology and Mycology Scholarship

Tamar Orly

Investigation of the biodiversity of Mortierellomycotina fungi from Wilsons Promontory National Park.

Molecular evolution in green seaweeds

— By Saelin Bjornson, who received the *Sophie Ducker Postgraduate Scholarship*

My research examines genome evolution in the Ulvophyceae, a class of green algae containing large seaweeds, such as the familiar sea lettuce, whose genome biology and diversity is largely uncharacterised compared to unicellular green algae.

I have sequenced 15 new Ulvophyceae genomes to use for comparative genomics, investigating the genetic basis of three unusual characteristics of this group. Firstly, in the Order Cladophorales, normally circular chloroplast genomes have fragmented into minicircular chromosomes that each encode only a single gene, and many genes have been lost. Degradation of genomes to this scale is unique to this group, and the factors mediating these genome topology changes are unknown.

Secondly, some orders have developed an alternative nuclear genetic code. The standard genetic code (how genes encode proteins) is generally conserved across all life and such deviations are rare. I am conducting a systematic evaluation of code usage across these genomes to investigate what enables the genetic code to evolve.

Thirdly, Ulvophyceae as a whole have a propensity to evolve multicellularity and unusual cell organisation. Species can have huge cells with thousands of nuclei, or even grow as one giant macroscopic cell. I have sequenced both unicellular and multicellular species to compare their gene sets, to determine the changes to gene repertoire that enable the evolution of multicellularity and multinuclear cells. I am conducting bioinformatic analysis of these new genomes to investigate these three atypical evolutionary trajectories.

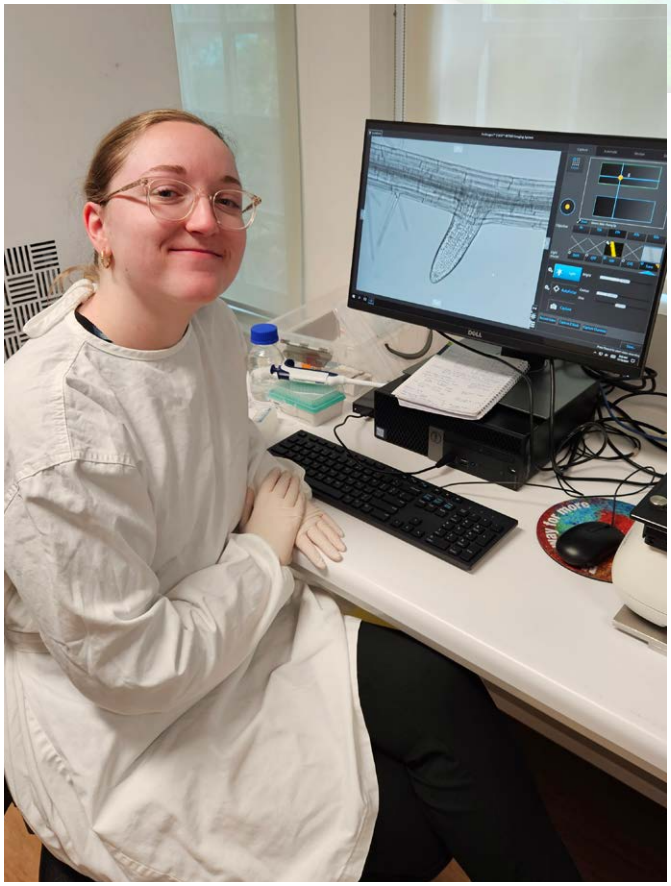
I am very grateful to have received the Sophie Ducker Postgraduate Scholarship, which has offset some of the costs associated with studying and living away from home in Canada, and enabled me to better focus on my research and attend international conferences to present my findings.

Saelin is completing her PhD and is supervised by Associate Professor Heroen Verbruggen

Plant cell walls shaping root-microbe interactions

— By Amelia Keynton, who received the *John S. Turner Postgraduate Scholarship*

Plants face many challenges under climate change, including changing rainfall patterns. The first interaction between plants and water occurs in the soil at the roots, which are responsible for water and nutrient uptake.



Above: Amelia imaging some Arabidopsis *roots grown in a microfluidic device.*

Microorganisms that inhabit the active region of soil around the root, the rhizosphere, can have beneficial potential to plants under drought conditions. Understanding the processes that shape root-microbe interactions, and how these interactions are affected by changing water conditions will be critical for developing innovative solutions to the negative effects of climate change on crop production.

As the external surface of the root, the cell wall, which surrounds every plant cell, forms a key interface for interactions with soil microorganisms. However, the effect of the plant cell wall on the assembly of the rhizosphere is largely unexplored. In my PhD I am using live imaging techniques to investigate how root cell wall properties might affect the recruitment of beneficial bacteria from the environment, and the nature and stability of their binding to the root.

Using emerging microfluidic techniques for plants, root-microbe interactions can be live imaged in situ in a way that was previously impossible. Through designing and fabricating my own microfluidics devices and utilising a collection of *Arabidopsis thaliana* cell wall mutants, I aim to address fundamental questions about the involvement of the plant root cell wall in bacterial interactions. I work specifically with two species of bacteria that have been fluorescently labelled to assist with imaging and are known to improve plant performance during drought. This project contributes to a larger project investigating how beneficial microbes can affect plant outcomes during intermittent rainfall.

I am thankful to have received the John S. Turner Postgraduate Scholarship to assist my studies and feel further encouraged to explore the questions I am passionate about.

Amelia is completing her PhD and is supervised by Professor Michelle Watt, Dr Douglas Brumley, Professor Berit Ebert and Dr Vicky Waymouth.

Fungal biodiversity research: Investigation of Mortierellomycotina in Victoria, Australia

— By Tamar Orly, who received the *Gretna Weste Plant Pathology and Mycology Scholarship*

It seems a wild statistic that less than 10% of the globally estimated 2.5 million fungal species have been described, when we consider the significance of fungi.

Top: Mortierellomycotina isolates detected in Tamar's study

Bottom: Tamar collecting samples within Wilson Promontory National Park

Fungal biodiversity research, therefore, remains an important and challenging field of study with implications in many fields. Traditionally, fungal species description has relied on morphological identification but with the cryptic nature of fungi, morphology proves unreliable when used alone. Fungi often live polymorphic lifestyles with only a small percentage producing above-ground, visible "mushrooms". So, how do we measure biodiversity of cryptic organisms that are often unobservable to the naked eye? Molecular methods using fungal DNA are providing a robust scaffold for researchers to tackle this vast knowledge gap with increased accuracy, speed and capacity.

My target fungi are the soil-dwelling Mortierellomycotina, an early diverging fungal lineage. Species of this lineage are well-known for their plant-growth promoting properties and ability to produce polyunsaturated fatty acids. This group, along with other early diverging groups played an integral role in the earliest evolution of terrestrial organisms some 470million years ago. Colonisation of land by plants was facilitated by symbiotic relationships with these fungi for nutrient-uptake and generation of soil by breaking down organic matter. Many of these symbiotic relationships have prevailed and are known to contribute to plant-growth promotion and pathogen resistance. These traits are apparent in extant, divergent fungal species and are of significant interest to researchers. Understanding the biodiversity and ecological function of these earliest lineages enhances our understanding and uses of derived fungal traits and the evolution of terrestrial ecosystems.

The Gretna Weste Plant Pathology and Mycology Scholarship assisted my fieldwork efforts and greatly reduced financial stressors while conducting my research. It has been a fun, rewarding and opportunity-filled year!

Tamar completed a BSc (Honours) project jointly undertaken by the Royal Botanic Gardens Victoria and the University of Melbourne, supervised by Associate Professor Alexander Idnurm and Dr Camille Truong.

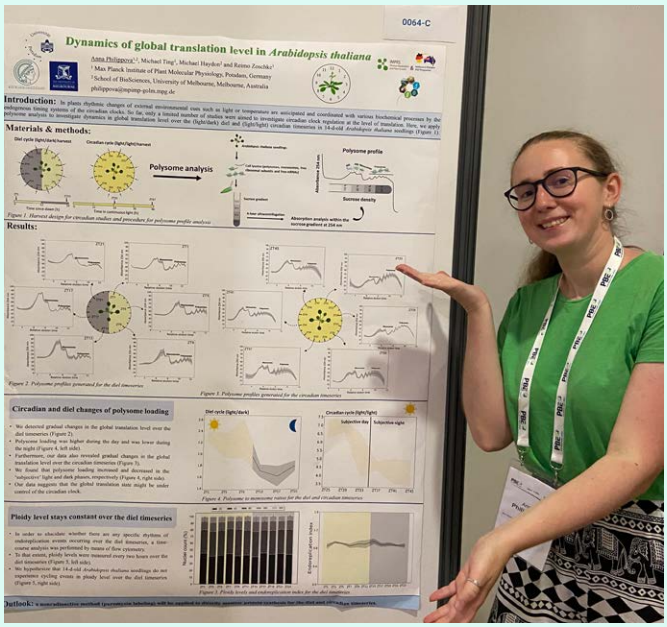
Circadian clocks in plants

— By Anna Philippova, who received the *Ethel McLennan Award*

Organisms of all kingdoms of life have a well-coordinated endogenous timing system, termed the circadian clock, which enables them to anticipate cyclic changes in various environmental conditions, such as temperature and light, and to adjust their biochemical processes to them.

In turn, different physiological processes, which cycle in a 24-hour manner, are considered as circadian rhythms. Circadian clocks are ubiquitous and represent crucial systems for perception of different environmental signals and coordination of the downstream signals and responses within the organisms. A functional circadian clock controls all aspects of plant physiology such as growth, metabolism, responses to abiotic and biotic stresses, the timing of flowering and reproduction. Moreover, the circadian clock helps plants to adapt to seasonal variations. The majority of studies across various organisms on circadian clock regulation have focused on transcriptional mechanisms of control. Only a limited number of studies have aimed to investigate the translational regulation of the circadian oscillator. However, integration of transcriptional, post-transcriptional, translational, and post-translational regulation mechanisms of the circadian oscillator is necessary to ensure robustness and flexibility of circadian clock in all organisms.

My project aims to investigate circadian-regulated dynamics of translation in *Arabidopsis thaliana*. To do this, I employed Ribo-sequence and RNA-sequence analyses to identify novel regulatory elements, such as upstream open reading frames, that are potentially involved in the translational regulation of circadian (light/light) and diel (light/dark) rhythms. Using a variety of methods, I verified functions of predicted translational regulatory elements (important in the control of gene expression), and was able to explore the changes in the global translation levels during both diel and circadian cycles. As a result, my project has shed more light on the translational regulation of circadian and daily rhythms in plants.



Above: Anna at the International Congress on Plant Molecular Biology

I used the funds from the Ethel McLennan Award to attend the International Congress on Plant Molecular Biology (IPMB 2024) in Cairns where I shared my findings with plant molecular biologists from all over the world. It was a great opportunity to connect with the scientific community and share the results of my PhD project. Networking with scientists from all over the world gave me the burst of encouragement that I especially need to finish my PhD. I also found this conference was a great platform for inspiring new ideas that would help me plan my future career.

Anna is completing her PhD and is supervised by Dr Mike Haydon.

Untangling the relationships of *Grammitid* ferns from Lord Howe island and southeastern Australia

— By Georg Armstrong, supported with funding from the *Fern Research Fund*

Grammitid ferns are a group of small mostly epiphytic ferns with fronds that are simple to bipinnate. (“Grammatid, Gr., refers to the line arrangement of sori in some species). A group of about 750 species, they occur in Australia, New Zealand, New Caledonia, Malesia, Asia, Central and South America, and Africa, often in rainforests and at higher elevations.

Grammitid ferns have been classified in the past into three artificial genera in the Family Polypodiaceae. Taxonomists have recently split these genera, recognising many new taxa but often based on few plant samples and limited DNA sequencing.

My research project was focussed on discovering more about the relationships and diversity of the genus *Notogrammitis* in Victoria including the species, *N. billardierei* that also occurs in Tasmania and New Zealand. I also investigated relationships to test the taxonomy of ferns from Lord Howe island, including two species of *Grammatis* and the new genus *Howeogrammatis* that has been erected for a single species (*H. diminuta*). I collected fresh plant samples in the Otway Ranges, used samples previously collected, and downloaded DNA sequences of other genera and species lodged in Genbank. I sequenced five regions of chloroplast DNA (*atp*B, *rbc*L, *rps*4-*trn*S, *trn*G-*trn*R and *trn*L-*trn*F) by ‘shotgun sequencing’, and was able to complete a phylogenetic analysis of a total of 201 sequences. Voucher samples I collected in the field were lodged and curated in the University (MELU) and Botanic Gardens herbaria (MEL).

My analyses revealed that samples of *Notogrammatis billardieri* from Victoria and New Zealand were the same species, but the Tasmanian sample was different and appears to be related to other species in the genus from New Zealand (found in montane habitat).

Above: Georg Armstrong collecting in the Otway ranges, Victoria

Above: An epiphytic grammitid fern (Notogrammitis angustifolia)

The three Lord Howe Island endemic ferns proved to be distinct with intriguing biogeographic links. The two endemics, *Grammitis pulchella* and *Grammitis nudicarpa*, were strongly supported as sister species but were not placed in 'true' *Grammitis*, but were related to other more northern, tropical genera *Prosaptia* and *Archigrammitis*. Neither were the two *Grammatis* species related to the third Lord Howe island endemic, *Howeogrammatis diminuta*, which appears to be related to species from New Caledonia.

Although my study was limited to one semester for the third-year subject 'Science Research Project', my findings indicate that resolving the taxonomy of these ferns and understanding their biogeographic history will require larger population sampling. My project was a satisfying experience – giving me a taste of research, DNA sequencing methodology, and the beauty of ferns.

Georg's research and herbarium curation costs were supported by the Botany Foundation's Fern Research Fund, established originally through a gift from the Fern Society of Victoria.

Georg's supervisors were Dr Daniel Ohlsen, Royal Botanic Gardens Melbourne, and Associate Professor Michael Bayly.

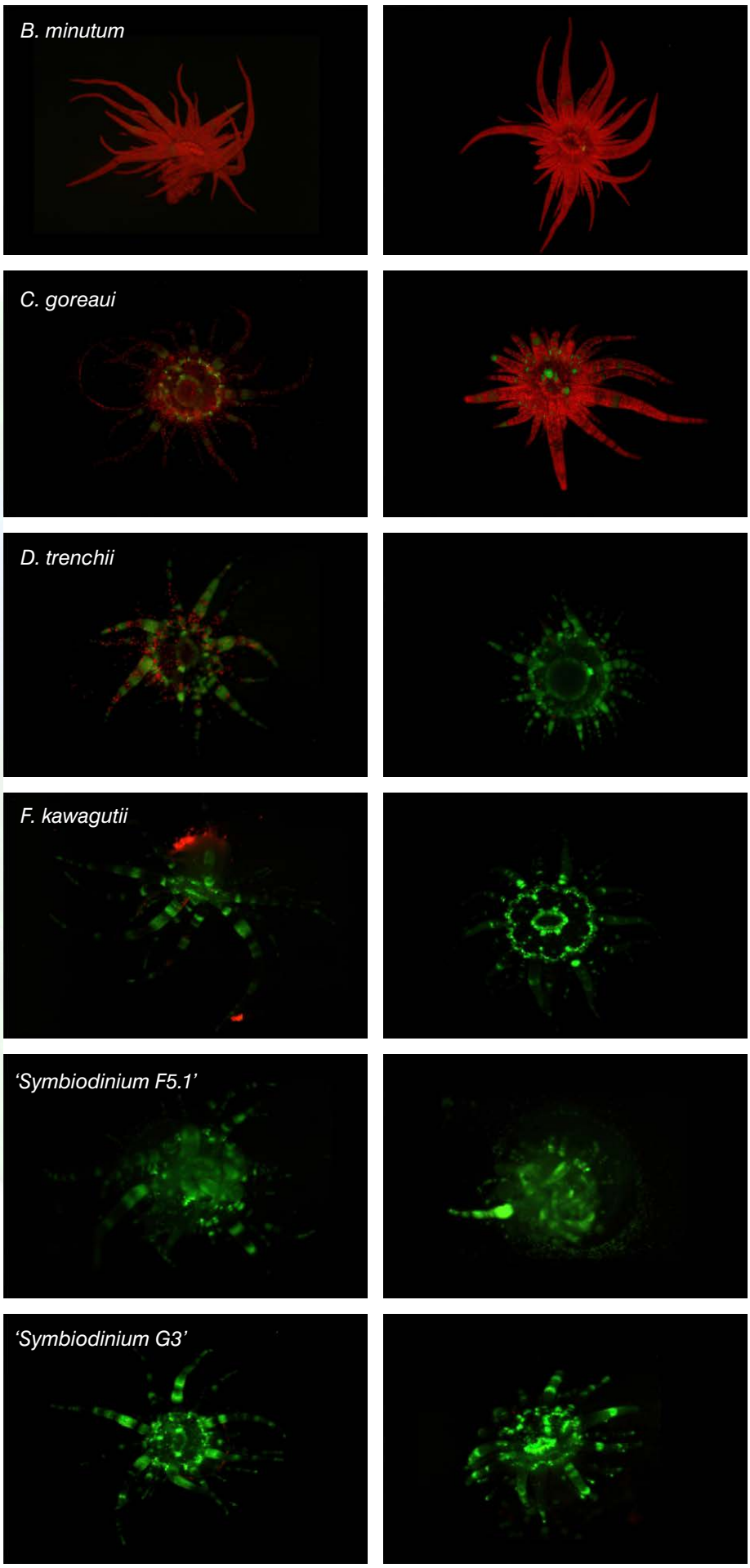


*Figure – Taxonomic 'identification' and successful hosting of the correct dinoflagellate species by our anemones. Anemones were inoculated with six species of potential algal symbionts and imaged after 15 days and 30 days. The anemones naturally fluoresce green, and the algal symbionts fluoresce red. In a compatible relationship (*B. minutum*) the red fluorescence of the alga masks the green fluorescence of the anemone, but in incompatible relationships with other algal species, the red fluorescence of the alga is minimal, and the green fluorescence of the animal is visible.*

(Images by: G. Tortorelli).

How different species of dinoflagellate algae are ‘taxonomically recognised’ by their coral-like hosts

— By Dr Joana Costa, Research Fellow, supported with funding from the *Protist Systematics Research Fund*

Dinoflagellates are single-celled algae that are vital partners for cnidarian animals such as corals, jellyfish, and anemones. The algae are crucial to the survival of these animals, who get ~95% of their energy from the photosynthesis of their solar-powered partners. This unique partnership, called symbiosis, is essential for coral reefs’ survival. Interestingly, each animal species partners with a specific type of dinoflagellate, creating highly selective, species-specific relationships.

But how do these animals distinguish between different algal species and select the right one? Cnidarians, like anemones, encounter various algae during feeding, yet they manage to “recognise” and keep only the correct species. It is as if each animal can perform its own form of “taxonomy,” discerning its ideal algal partner.

In our research, we use a model species, *Exaiptasia diaphana* – an anemone originally collected from the Great Barrier Reef. This anemone has a strong preference for hosting *Breviolum minutum*, although it can also accommodate other related dinoflagellates such as *Cladocopium goreaui*. Other algae species, however, are rejected (see Figure).

Our hypothesis? We think that cnidarian animals possess a “taxonomic recognition device” on their cell surface, likely a type of protein called a lectin, which can identify and bind to species-specific signals on the alga’s surface. To test this, we are isolating membrane proteins from anemones partnered with dinoflagellate algae and analysing them using advanced techniques like fluorescence-assisted cell sorting and mass spectrometry to identify the proteins responsible for recognising the correct partner.

This work will bring us closer to understanding the fine-tuned biological “language” that allows coral reef ecosystems to flourish through these partnerships.

Joana works with Professors Geoff McFadden and Madeleine van Oppen.

In recognition of the discoveries of cell dynamics by Jeremy Pickett-Heaps, an award was established in his memory to provide support to an early career researcher working in the area of plant and algal cell biology. Gifts for this award have been received from his family, colleagues, former students and friends. The inaugural award was made in 2024 to PhD student Laura Geissler to provide funding towards her research costs.

Unravelling the external bacterial microbiome of endosymbiotic microalgae in a coral model

— By Laura Geissler who received the *Jeremy Pickett-Heaps Award*

The Great Barrier Reef is threatened by the increasing rate of mass coral bleaching events driven by climate change – 2024 being the fifth in only eight years.

When corals bleach, they expel the microalgae that live inside their cells and provide them with most of their nutrients. If they are not granted sufficient recovery time, bleached corals will often die. The success of coral reefs depends on the symbiosis between the coral animal and intracellular microalgae, which is likely supported by other microbes such as bacteria (see also page 15). Thus far, algal biology lacks a thorough model of this complex symbiosis, especially one including the contribution of bacteria.

My research addresses the symbiosis of microalgal symbiont, coral host and bacteria. One of my aims in this is to isolate the symbiosome, the compartment within coral cells that houses the intracellular algae, from the coral *Acropora loripes*, and characterise the bacteria within the symbiosomal lumen thereby providing a holistic understanding of the coral-algal-bacterial symbiosis. Ideally, this knowledge will later aid in the development of interventions like targeted bacterial probiotics and culturing of resistant algae. In my preliminary work, I found a membrane dye that allows me to find symbiosomes via variations in the dye's fluorescence intensity. I was able to confirm successful isolation via electron microscopy.

Initial results were presented at the International Symposium on Microbial Ecology 2024 in Capetown, garnering significant interest from others in the field of coral symbioses. Funds from this award have contributed to costs for fluorescence-activated cell sorting to isolate symbiosomes and DNA metabarcoding to assess the bacterial community associated with these intra-cellular microalgae.

Above: Laura preparing DNA for metagenomic sequencing

Laura's PhD research project addresses a holistic understanding of algal-bacteria-coral symbiosis, and is supervised by Prof. Madeleine van Oppen.

Foundation Gifts Received In 2024

Botany Foundation – Unrestricted/Research

Anderson, John & Anderson OAM, Patricia
Howlett, Barbara
King AM, John & King, Heather
Newbigin, Ed
Perkins, Lesley

David H Ashton Scholarship

Anonymous

Sophie Ducker Postgraduate Scholarship

Flesch, Juliet Ella

Megan Klemm Postgraduate Research Award

Underwood, Bruce

The Jeremy Pickett-Heaps Award

Pauline Ladiges Plant Systematics Research Fellowship

Bayly, Michael
Moors AO, Philip
Nelson, Gareth
Playford, Mary

Ethel McLennan Award

Gaff, Donald & Gaff, Janet

Plant Systematics Research Fund

Ladiges AO, Pauline & Nelson, Gareth

Protist Systematics Research Fund

Cowan, Roberta
Kershaw, Helen

Kingsley Rowan Botany Prize

John S Turner Postgraduate Scholarship

Gaff, Donald & Gaff, Janet
Groves, Richard
Turner, Peter & Turner, Rosemary

Gretna Weste Plant Pathology and Mycology Scholarship

Anonymous
Idnurm, Alexander

Fern Research Fund

Regan, Margaret

The University of Melbourne Herbarium Fund

Gregson AM FTSE, Tony
Ladiges AO, Pauline & Nelson, Gareth

The Women in Science of the Environment (WISE) Fellowship

Harrison, John and Harrison, Margaret

Foundation Financial Summary in 2024

	Balance at 01.01.2024 ($)	Transfers ($)	Income[1] ($)	Awards & Expenses[2] ($)	Revaluation[3] ($)	Balance at 31.12.2024 ($)
Adrienne Clarke Chair of Botany Trust	**4,901,329**		**233,833**	**(171,073)**	**307,074**	**5,271,162**
Botany Foundation Trust						
Unrestricted Funds	1,582,393	19	79,525	(40,797)	97,255	1,718,375
David Ashton Travel Award	55,229		2,609	(2,547)	3,466	58,757
David H Ashton Scholarship	158,826		9,551	(7,289)	9,997	171,085
Sophie Ducker Postgraduate Scholarship	93,742		4,477	(4,411)	5,879	99,687
Megan Klemm Research Award	141,939		11,823	(6,571)	8,979	156,171
Bruce Knox Prize	50,505		2,388	(2,260)	3,169	53,802
Pauline Ladiges Plant Systematics Research Fellowship	1,638,612		81,004	(23,003)	102,391	1,799,005
Ethel McLennan Award	71,896		3,598	(3,385)	4,507	76,617
Plant Systematics Research Fund	349,856		18,817	(10,064)	21,636	380,244
Protist Systematic Research Fund	113,900		8,371	(9,117)	6,894	120,047
Kingsley Rowan Marine Botany Prize	51,609		2,444	(2,061)	3,196	55,188
G.A.M. Scott Research Fund	159,934		7,554	(7,389)	10,031	170,130
John S. Turner Postgraduate Scholarship	110,271		6,390	(5,043)	6,956	118,575
Gretna Weste Plant Pathology and Mycology Scholarship	48,975		2,618	(2,258)	3,072	52,407
The Fern Research Fund	43,280		2,519	(3,250)	2,618	45,167
V Sarafis Research Fund	80,215		3,867	(4,097)	5,006	84,991
The University of Melbourne Herbarium Fund	859,250		49,786	(34,999)	53,993	928,030
Women in Science of the Environment (WISE) Fellowship	144,477		12,656	(6,172)	8,969	159,931
Jeremy Pickett-Heaps Award	92,193		4,376	(4,035)	5,751	98,284
Botany Foundation Trust – Total	**5,847,103**	**19**	**314,371**	**(178,747)**	**363,766**	**6,346,493**
Total of the Two Trusts	**10,748,432**	**19**	**548,204**	**(349,820)**	**670,840**	**11,617,656**

Notes

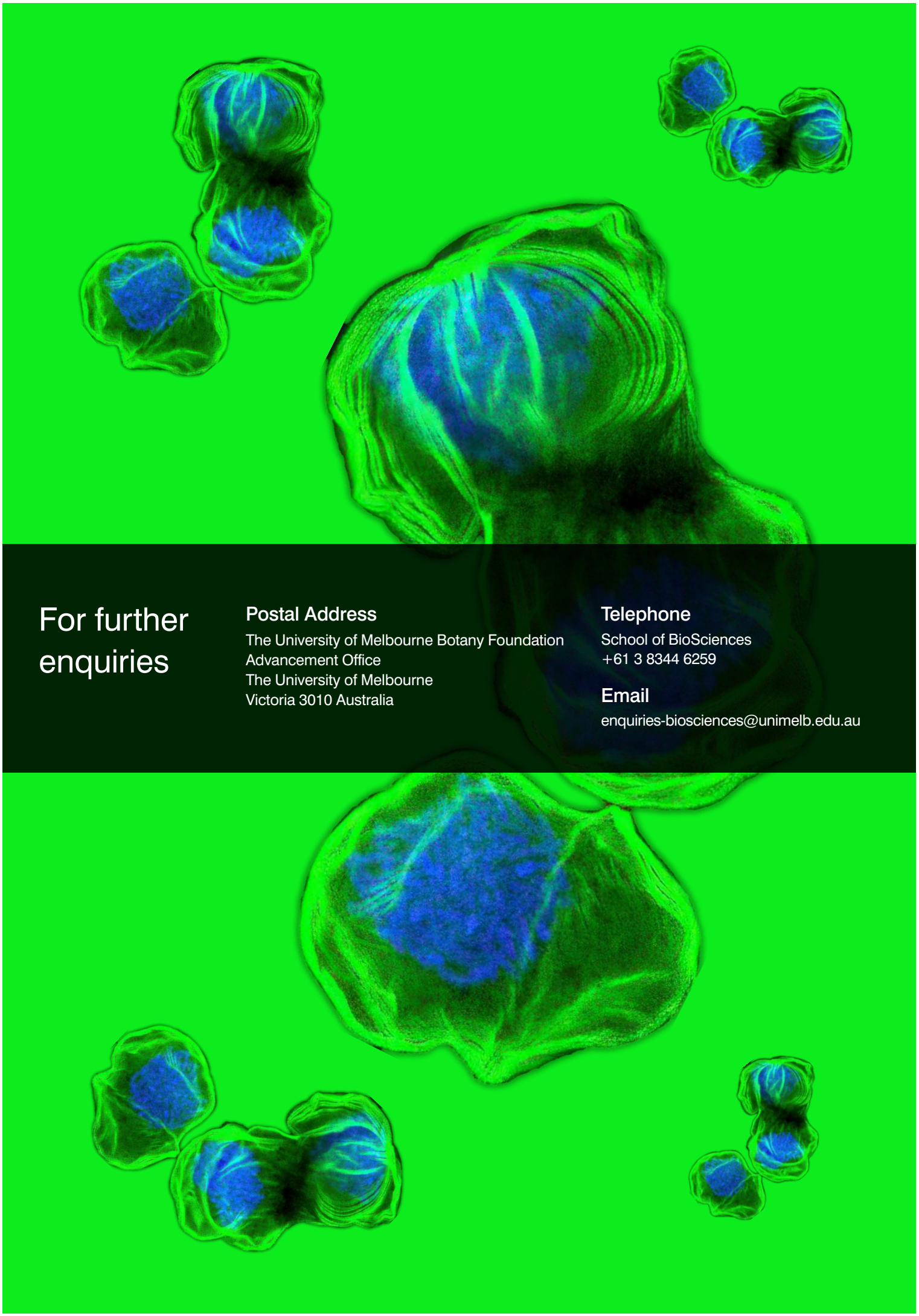
1. Income includes donations and earnings on investments
2. Expenses include administration charges
3. Revaluation amounts represent the change in unit price of the capital units during 2024 of respective Trusts

Right: Fern Sporangia. Credit: Andrew Drinnan

Donate to the Botany Foundation

visit the Botany Foundation website at:

https://science.unimelb.edu.au/engage/giving-to-science/botany-foundation



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