Playford Trust

Annual Reviews 2021

The Playford Memorial Trust supports high-achieving South Australian tertiary students studying in areas of strategic importance to the State

playfordtrust.com.au The Playford Memorial Trust Inc.



Playford Trust



Investing in South Australia's future

The Playford Memorial Trust assists high-achieving tertiary students who are contributing to South Australia's skills, knowledge and research base.

Together with partners across industry, government, the education sector and the community, it supports students undertaking undergraduate, Honours or PhD programs at the three main universities, or studying through TAFE SA.

There is a particular focus on five areas of strategic and economic importance to the State:

- Advanced manufacturing and new technologies
- Agriculture, aquaculture and food production
- Environmental sciences, including water, energy and climate change
- Health sciences and enabling technologies
- Mining and resources development.

Established in 1983 in honour of Sir Thomas Playford, SA's longestserving Premier, the Trust has supported more than 600 students in the past decade alone.

In recent years, with the help of a growing list of partners, it has significantly increased its reach and impact, the number of scholarships and awards it offers and the value of its annual disbursements.

Funds now come from a range of sources, including income from its own investment fund; contributions or sponsorships from industry, the education sector and the community; an annual State Government grant; donations from individuals and foundations; additional specific grants from government; and bequests.

The Trust is governed by a voluntary Board and administered with assistance from the Department of the Premier and Cabinet. An independent body operating under its own Deed, it enjoys bi-partisan political support as a not-for-profit, charitable trust. Donations are tax deductible.

Highlights and achievements

The Playford Trust releases its Annual Review each April to coincide with the announcement of new university scholarships. This year it is a pleasure to be able to report on a very successful 2020, despite the impact of the global pandemic.



Together with our partners, we provided financial support to 78 university, TAFE and leadership students during the year, and expect to that number to rise to 109 in 2021.

There were some hiccups, of course, not the least being the need to cancel our annual university awards night because of COVID-19. This was a great disappointment, as the event provides an opportunity to hear about the work our scholars are doing. They do stay in touch, however, through written reports – a number of which are featured in this publication – and it is inspiring to read how some have adapted to cope in difficult circumstances.

The Trust would not have the reach and impact it does without our many partners in industry, government, the education sector and the community. In 2020, with their help, we were able to provide more than \$500,000 in scholarships and awards – including seven community leadership scholarships in the Upper Spencer Gulf, in partnership with the Leaders Institute of South Australia.

In 2021, the value of our student support will be more than \$700,000 – easily a record, and a testament to the hard work of our Board and small team. It's worth noting that this figure doesn't include the dollar value of the various internships and traineeships offered by some of our partners, nor the value to

Summing up success

78 tertiary students supported in 2020 100+ in 2021

29 industry, education and community partners in 202033 confirmed for 2021

SS confirmed for 202

\$527,000 Playford Trust + partner support for students in 2020 **\$700,000+** in 2021

Inside 4 New scholarship winners 6 PhD research reports 8 Honours research reports
12 Undergraduate student reports 14 Partnerships at work 15 Alumni updates

both parties of the interaction between scholars and supporting organisations.

We are pleased to welcome four new partners for our Mining and Petroleum Engineering Scholarships (see story opposite) and thank a number of continuing partners for increasing their support. Aurecon, SA Power Networks and WSP Australia have been so impressed with the calibre of students we have offered that they have doubled their commitment. Codan, which has been funding an Honours scholarship, has committed to supporting PhD scholars as well, recognising the value of their research to the company.

The productive relationships we have with the three universities and TAFE SA go back decades and continue to strengthen as the value of our disbursements grows.

I sincerely thank the members of the Board for their countless hours of unpaid work, as well as our indispensable Scholarship Executive, Vicki Evans, and the executive officers at the Department of Premier and Cabinet who have supported us during the past 12 months.

This June will mark the 40th anniversary of the death of Sir Thomas Playford, whose vision and leadership inspired the creation of the Trust.

To think it all started with just one PhD scholarship in horticulture in 1987. We have indeed come a long way.

The Hon Dean Brown AO Chairman

Growing with the resources sector

One of the success stories of the past 12 months has been an initiative to support the growing demand for engineering expertise in South Australia's resources sector.

Last year we reported on a five-year collaboration with the State Government and the SA Chamber of Mines and Energy (SACOME) to provide more than \$2 million in scholarships for students enrolling in mining and petroleum engineering at the University of Adelaide.

For each scholarship funded by industry, the Government is providing another, and each student receives \$20,000 over two years. Ten scholarships were awarded for 2020 – five each in mining and petroleum – and a similar number will be awarded for 2021. BHP, Beach Energy, Cooper Energy, Santos and Tri-Star have all come on board, and OZ Minerals has committed to funding two scholarships over the full five years. This support is greatly appreciated, as is SACOME's work in helping to promote these valuable opportunities.

This very targeted program highlights the collaborative way the Trust likes to work with industry and community partners. Our discussions with SACOME, the State Government and the University of Adelaide recognised the growing demand for engineering expertise in these key areas of the national resources industry and made it very clear that a partnership with the Trust could make an important contribution.

Alumni making their mark



Internationally respected *Science News* magazine has named Playford Trust scholar Phiala Shanahan in its latest list of elite young scientists "pushing the boundaries of scientific enquiry".

All of the SN10 honourees were nominated by Nobel laureates, recently elected members of the US National Academy of Sciences, or previous winners of the accolade.

Phiala – now a Professor of Physics at the prestigious Massachusetts Institute of Technology (MIT) – grew up in Adelaide, studied both undergraduate and postgraduate physics at the University of Adelaide, and won a Scantech/Playford Trust Scholarship in 2011. She later moved to the US where, after some postdoctoral work, she was hired by MIT as its youngest ever professor of physics – and in her words, it's her "dream job".

Phiala's research aims to calculate the characteristics of protons and neutrons based on fundamental physics. She wants to determine not just their size, but also their mass and the nature of their components. These calculations can help scientists put the 'standard model' – the theory that governs elementary particles and their interactions – to the test.

For me, support from the Playford Trust directly translated into more time that I had available to focus on my studies at a critical point in my education.

It is a fantastic program, and a delight every year to read the biographies of a new cohort of inspiring young South Australian scholars supported by the Trust." **Phiala Shanahan**



Helen Kim was named Young Achiever of the Year at the Premier's Awards for Energy and Mining in December 2020.

The honour recognised her work as a production support metallurgist with BHP at Olympic Dam,

where she reviews process trends, conducts in-field troubleshooting to optimise plant performance, and leads technical projects that aim to improve production efficiency, environmental impact and safety.

Helen received an AusIMM/Playford Trust Honours Scholarship in 2017. After completing her studies at the University of Adelaide, she began her career in BHP's graduate program.

Helen enjoys mentoring new graduates and is involved in both university and school outreach programs, sharing her experiences in the resources industry and "paying forward" the mentoring she has received.

Trust Partners

Adelaide Hills Council Aurecon AusIMM Australian Arid Lands Botanic Garden Beach Energy BHP Chartwells Codan Cooper Energy Coopers Brewery Department of Mines and Energy Department of Premier and Cabinet Fay Fuller Foundation Flinders University Government of South Australia Geological Society of Australia Leaders Institute Nyrstar Open Gardens SA **OZ** Minerals SACOME Santos SA Power Networks Seeley International St Ann's College **TAFESA** The University of Adelaide Thomas Foods International Thyne Reid Tri-Star Ultra-Electronics University of South Australia WSP Australia

Trust Board

Hon Dean Brown AO (Chair) Hon Paul Holloway (Deputy Chair) Mr Dean Standish (Public Officer) Prof Don Bursill AM Mr Nick Carne Prof David Day Dr Kate Delaporte Hon Dr Diana Laidlaw AM Hon Robert Lawson RFD QC Ms Jacqui McGill AO Ms Bunty Parsons Dr Leanna Read Mr Keith Yates

COVER

2020 Playford Trust/Coopers Brewery Honours Scholarship winner, Ryan Edwards, who is studying a Bachelor of Science (Biotechnology) at the University of Adelaide. See his report page 8.

2021 university scholarship winners

Playford Trust Regional Science and Engineering Scholarships

Rory Bowles | Bachelor of Engineering (Civil) (Honours) | Flinders University

Joshua Graham | Bachelor of Science | University of Adelaide

Dana Hurrell | Bachelor of Science | Bachelor of Mathematical Sciences | University of Adelaide

Jack Read | Bachelor of Engineering (Honours) | Flinders University

Talia Robinson | Bachelor of Engineering (Honours) | University of Adelaide

Isabella Trigwell | Bachelor of Science (Honours) (Biotechnology) | Flinders University

Adelaide Hills Council/Playford Trust Scholarship

Douglas Rhodes | Bachelor of Science (Honours)) (Environmental Science) | Flinders University

Aurecon/Playford Trust Electrical Engineering Scholarship

Angela Vanderklugt | Bachelor of Engineering (Electrical and Electronic) (Honours) | University of Adelaide

AusIMM/Playford Trust Scholarships

Reuben Dowie | Bachelor of Engineering (Chemical) (Honours) | Bachelor of Finance | University of Adelaide

Josiah Park | Bachelor of Science (Honours) (Geology) | University of Adelaide

Zarin Tasnem | Bachelor of Engineering (Chemical) (Honours) | University of Adelaide

Chartwells/St Ann's College/Playford Trust Residential Scholarships

Lachie Hunter | Bachelor of Engineering (Civil) (Honours) | Bachelor of Finance | University of Adelaide

Kahli Lock | Bachelor of Engineering (Chemical) (Honours) | University of Adelaide

Codan/Playford Trust Honours Scholarship

Matthew Rehbein | Bachelor of Mathematical Sciences (Honours) | University of Adelaide

Cooper Energy/Playford Trust Scholarship

Tuan Huynh Tran | PhD (Petroleum Engineering) | University of Adelaide

Coopers Brewery/Playford Trust Honours Scholarship

Luke Wooley | Bachelor of Science (Honours) (Plant Science) | University of Adelaide

GSA/Playford Trust Honours Scholarship

Thomas Burke | Bachelor of Science (Honours) (Geology) | University of Adelaide

Nyrstar/Playford Trust Scholarships

Chetan Gautam | Bachelor of Engineering (Electrical and Electronic) (Honours) | University of South Australia

Nelson Hayes | Bachelor of Engineering (Electrical and Electronic) (Honours) | University of Adelaide

Josephine Matthias | Bachelor of Engineering (Chemical) (Honours) | University of Adelaide

Elsie Potezny | Bachelor of Engineering (Chemical) (Honours) | University of Adelaide

OZ Minerals/Playford Trust Honours Scholarship

Emily Lewis | Bachelor of Science (Honours) (Geology and Geophysics) | University of Adelaide

Santos/Playford Trust Honours Scholarship

Callum Crespan | Bachelor of Science (Honours) (Mineral Geoscience) | University of Adelaide

SA Power Networks/Playford Trust Scholarships

Ishika Ghosh | Bachelor of Engineering (Electrical and Electronic) (Honours) | University of Adelaide

Georgia Kappos | Bachelor of Engineering (Electrical and Electronic) (Honours) (Renewable Energy) | Bachelor of Computer Sciences | University of Adelaide

Seeley/Playford Trust Scholarship

Shane Harris | Professional Diploma in Building Services | Australian Institute of Refrigeration, Air Conditioning and Heating

Thomas Foods International/Playford Trust Scholarship

Harrison Bagley | Bachelor of Engineering (Mechatronics) (Honours) | Bachelor of Mathematical and Computer Sciences | University of Adelaide

Ultra Electronics/Playford Trust Scholarship

Kieran Lobban | Bachelor of Engineering (Robotics) (Honours) |Bachelor of Engineering (Computer and Network Systems) (Honours) | Flinders University

WSP/Playford Trust Scholarship

Andisheh Lashgari | Bachelor of Engineering (Civil) (Honours) | University of South Australia

Nathan Lines | Bachelor of Engineering (Civil and Environmental) (Honours) | Bachelor of Finance | University of Adelaide

Playford Trust Honours Scholarships – University of South Australia

Jerusha King | Bachelor of Science (Honours)

Kane O'Brien | Bachelor of Engineering (Electrical and Mechatronic) (Honours)

Playford Trust Honours Scholarships – University of Adelaide

Alec McCallum | Bachelor of Science (Honours)

Alison Roennfeldt | Bachelor of Science (Honours) (Molecular and Biomedical Science)

Thomas Roocke | Master of Philosophy (Experimental Physics)

Nathan Van der Hoek | Bachelor of Engineering (Mechatronic) (Honours) | Bachelor of Mathematical and Computer Sciences

Playford Trust Honours Scholarships – Flinders University

Mitchell Griggs | Bachelor of Science (Honours) (Physics)

Susanna Grigson | Bachelor of Science (Honours) (Molecular Biology & Biochemistry) | Bachelor of Science (Mathematics)

Adam Perryman | Bachelor of Engineering (Civil) (Honours)

Philippa Tsirgiotis | Bachelor of Engineering (Mechanical) (Honours) | Master of Engineering (Biomedical)

Playford Trust PhD Scholarships

Jessica de la Perrelle |Physical Chemistry (Ultrafast Spectroscopy) | University of Adelaide

Isabella Reeves | Marine Biology and Conservation Genomics| Flinders University

Undergraduate Mining and Petroleum Engineering Scholarships – University of Adelaide

Mining Engineering

Jack Haddad – BHP/SA Government/ Playford Trust

Francesca Tew – BHP/Playford Trust Mitchell Roberts – OZ Minerals/Playford Trust

Guillaume Stander – OZ Minerals/Playford Trust

Xiaoqian Zhang – OZ Minerals/SA Government/Playford Trust

Oliver Snoad | OZ Minerals/SA Government/Playford Trust

Petroleum Engineering

Salomon Mobutu Sese | Beach Energy/ Playford Trust

Additional scholarships confirmed during 2021 will be announced in regular Playford Trust e-updates.

TAFE Awards

In November, we honoured our 2020 Playford Trust / TAFE SA Award recipients at a small but special ceremony at Urrbrae.

TAFE SA has been a Trust partner for more than 20 years and together we have helped scores of talented students undertake further studies in their chosen fields.

This year's winners were no exception.

Brandon Woolley

Certificate III in Conservation & Land Management, Barossa Campus

Brandon wants to be an ecologist, so he can help conserve South Australia's unique vegetation, fungi and fauna. He has plans for further study, including either Conservation Biology or Science at the University of Adelaide – and he's keen to work with an environmental consultancy so he can study at the same time.

Brandon has been involved in preliminary vegetation surveys for the Marna Bangarra Project, which is endeavouring to reintroduce locally extinct mammal species to the Southern Yorke Peninsula.

Chelsea Pedersen

Diploma of Conservation and Land Management, Barossa Campus

Chelsea is passionate about the environment and sustainability and wants to work in this area long term. She comes from a farming background and lives in the South East but has been studying her Diploma at the Barossa TAFE Campus. She works

"These awards support students in many ways; the ever-present financial pressure, connections with other recipients, and promotion to employers of award recipients' capabilities and passion.

TAFE SA is extremely proud to support the Playford Trust Awards. This partnership and the prestige surrounding them certainly adds value to the student experience – and our programs."

Wayne Sims Education Manager, TAFE SA.



Chairman of the Playford Trust, the Hon Dean Brown AM (centre) with (from left) Brandon Woolley, Chelsea Pedersen, Stephen Colloff and Annette Burmeister.

full-time as a Senior Project Firefighter for the National Parks and Wildlife Service, and leads a small team involved in fire management and district project works in her area. She is working towards a role as a Park Ranger.

Stephen Colloff

Diploma of Conservation and Land Management, Barossa Campus

Stephen began a mature-age apprenticeship in 2013, while also studying a Certificate III in Horticulture. He was named Horticultural Student of the Year, nominated for South Australian Apprentice of the Year, and among the finalists for Australian Apprentice of the Year.

In 2016, Stephen gained full-time employment with Burnside Council and is now Team Leader of Natural Resources with responsibility for more than 40 biodiversity sites and a team of five people.

Annette Burmeister

Diploma of Horticulture |Diploma of Landscape Design, Urrbrae Campus

Annette says she's been a horticulturist and garden designer since, as a child, she discovered an unused space in the BBQ area in her family's backyard. She used to love exploring the bush out from Alice Springs, where she grew up.

Her career has included teaching children about organic food production in Queensland, restoring bushland for a mining company and working in retail nurseries in SA. She now runs her own garden design business.

Pearl Dessart

Certificate III in Agriculture, Port Lincoln TAFE

Pearl has always been interested in agriculture, but it was her 2019 Year 10 work experience stint with the local PIRSA Animal Health Officer that confirmed her desire to pursue a career in the field.

In 2020, she took on a Certificate III in Agriculture as part of her Year 11 studies – on top of a farm-based agricultural traineeship through which she is gaining hands-on, practical experience that complements her TAFE studies.



Pearl Dessart was unable to make it from Port Lincoln for the awards night but we arranged for her local Member of Parliament, Mr Peter Treloar, to present her with her certificate.

PhD research reports



Kaili Stacey 2018 Thyne Reid Foundation/ Playford Trust PhD Scholarship

Centre for Nanoscale Science and Technology, Flinders University

Nanoparticle surface chemistry and attachment as a route to functional materials

Nanoscale sized particles have interesting optical and physical properties that have a wide range of potential applications, including precision colour control and sensing devices. My project is focused on the synthesis of "raspberry particles", in which particles are chemically bound to other particles, resulting in materials with mixed properties.

The specific challenge is to develop reactions to attach different nanoparticles together at high density with control over parameters such as material, size and attachment density. This level of control allows you to create structures that are iridescent, catalytic, selfcleaning, etc.

These types of attachment reactions are highly dependent on the chemistry at the surface of the particle, which can vary greatly from the bulk material, and they are often not well understood. One key aspect of my research has been the discovery that the surface chemistry of silica (glass) based nanoparticles can change substantially with even very small changes in the particle synthesis method.

This change in surface chemistry has a dramatic impact on the reactions that can be used and the ways in which these particles can attach to others. This new knowledge will allow for more effective control over attachment reactions and, consequently, the final material properties.



Bradley Kirk 2020 Playford Trust PhD Scholarship College of Science and Engineering,

College of Science and Engineering, Flinders University

Investigating the stability of flexible organic solar cells fabricated under ambient conditions

Photovoltaics (PV), commonly known as solar panels, have become quite popular in Australia as our society transitions towards the use of renewable energy sources. Currently, PVs require a large amount of energy to fabricate, are brittle and lack flexibility, and there are limitations on where and how they can be placed or installed.

Because of these issues, there is interest in researching and developing Organic Photovoltaics (OPVs). These devices use organic-based materials to absorb light and convert it into power. As these materials can be dissolved in a solvent, they can be applied to surfaces using a variety of printing and coating methods. This means less energy is required to produce them and they can be fabricated on flexible substrates, enabling cheap and flexible solar cells to be used for a wider range of applications.

In my project, using a slot-die coater, I am aiming to understand and improve the stability of scalable OPV devices that are fabricated in the presence of oxygen and moisture. Over the past year, I have been developing more efficient solar cells by adjusting printing conditions and varying the materials used. The next step is to investigate the main reasons for the decrease in OPV lifespan.



Alison Gill 2020 Playford Trust PhD Scholarship

Plant Science, School of Agriculture, Food and Wine, University of Adelaide

Industrial hemp – is it a miracle crop suitable for inclusion in South Australian cropping systems?

Industrial hemp has been labelled a miracle crop for its ability to produce seeds and fibre for many different applications in clothing, textiles, papermaking, cosmetics, construction, biofuels and food industries. However, there is currently a lack of information regarding hemp agronomy, particularly its water usage and drought tolerance.

As crops that require large amounts of water are not viable in many parts of Australia, research is needed to determine whether hemp has a place in low-water-use cropping systems. Having confidence that it does could cause a significant shift in the agricultural industry in southern Australia.

In 2020, I focused my research on field trials that compared hemp varieties, and I conducted controlled-environment experiments to determine the physiological response of hemp to water stress. I concentrated on optimising methods to use in future water-stress studies.

Key highlights were the development of polymerase chain reaction (PCR) methods to characterise hemp sex prior to flowering, and observing significant differences in biomass and physiology in hemp plants under drought stress. I am looking forward to conducting exciting drought and growth studies at The Plant Accelerator, the SA node of the Australian Plant Phenomics Facility.

PhD research reports

James Dorey

2018 Playford PhD Scholarship College of Science and Engineering, Flinders University

Uncovering Australia's new native bee species

2020 was crazy for everyone. We transitioned smoothly from a bushfire crisis here in Australia to a global pandemic. As shocking as the former was, it was quickly eclipsed by the latter. But with 18.5 million hectares of Australia burnt in a single fire season, I was inspired to take something of a tangent with my PhD project and time.

Insects usually get the short end of the stick when it comes to conservation efforts and, despite their importance, bees are no exception. It's not hard to see why, when there are so many species [1654 named in Australia alone), they are hard to identify and they are, quite often, literally below people's notice. And so, for me, much of the year was dedicated to trying to get a handle on how Australia's native bee fauna might have been impacted by the bushfire season. Perhaps unsurprisingly, the impacts have been pretty large for many species and the output is currently under review.

On top of that, I have been continuing to try to figure out what has happened with the Fijian Homalictus bees. (Spoiler: it looks like people have had a pretty big impact and a surprisingly positive one!). I have also been working out how to tell the difference between low-lightadapted bees and the others, as well as discussing threats to a particularly rare northern bee that hasn't been found for almost 100 years!

Robert Eyre Trott

2017 Playford Trust PhD Scholarship

College of Science and Engineering, Flinders University

The novel control of a unilateral exoskeleton for post-stroke gait rehabilitation



Losing the ability to walk and having reduced mobility after stroke results in a massive loss of quality of life for many individuals. Robotic exoskeletal legs have been introduced as a therapy option to help

patients regain the ability to walk, however their usefulness has been questioned and their superiority to conventional therapy is unknown. The way these devices are controlled is far more important than initially thought, and is the basis for my work.

I designed a controller to enhance patient rehabilitation with robotic devices and developed a framework for stimulating neurological compensation mechanisms that deliver functional recovery. This should lead to better long-term patient outcomes. The neurological framework outlines the interaction between the controller and patient as well as the timelines for therapy. It also proposes several recovery mechanisms stimulated from using the controller. In the final stages of my research, I developed the proposed controller, custom engineered sensors to obtain the desired signals and performed a participant study to explore the interaction between users and the controller. Sensor development is a major contribution of my research because the resulting device can obtain superior signals in a more confined environment than other competing devices. Future work, post my studies, will be the further development of the controller so that it can be used for its intended purpose in a clinical setting.

Nikki Dumbrell

2018 Thomas Foods International/ Playford Trust PhD Scholarship

Centre for Global Food and Resources, University of Adelaide

How do natural resource-dependent industries gain and lose a social licence?



The term "social licence to operate", introduced in natural resource-dependent industries in the 1990s, has increasingly become used to describe the social and environmental

standards businesses should meet, as well as the guidelines for meeting them. A firm whose activities are accepted by the



community is considered to have a social licence to operate.

The increase in attention paid to social licence has been attributed to changes in public regulation and governance arrangements; public access to information about firms' activities; and growing awareness of, and related action in, the global sustainability movement. My research has found that social licence concerns arise in response to:

- Negative impacts of production or company behaviour – for example, pollution – on third parties, like neighbours or local communities
- Use of socially valuable assets, such as water, to generate large private profits
- Undersupply of goods that do not have market prices – for example, the aesthetic value of the environment, ecosystem services, public safety and animal welfare.

Understanding these drivers can help identify strategies to address the causes of issues, rather than the symptoms. I have found that, for natural resources companies, these strategies include a combination of net economic benefits; stakeholder consultation; absence of media attention; absence of protests; and absence of well-defined and enforced private property rights. Some factors are within a firm or community's control; others are not. Ongoing work will apply these findings to the agricultural and future fuels industries.

Ryan Edwards

Coopers Brewery/Playford Trust Honours Scholarship

Bachelor of Science [Biotechnology], University of Adelaide

Changing malt characteristics of barley grain by genetic modification

The aleurone is an important cell type in the barley grain that surrounds the core of the grain. Its role is to produce enzymes which break down the internal structure of the grain and degrade starch, producing energy to feed the growing plant embryo. This function is biologically important but is also harnessed by humans to produce malt for the purpose of brewing beer and whiskey.

My Honours project aimed to change the size of the aleurone using strategic genetic modification of our target gene and to characterise the resulting changes in the grain. We were successful in changing the size of the aleurone but, to our surprise, both larger and smaller aleurones resulted in slower germination and lower production of malt-related enzymes. We now know that the gene that we chose to modify expression of must be important in aleurone development. Genes under regulation of our target gene could be identified and modified similarly, creating a positive impact on barley malt quality and therefore increasing the quality - and value of the final product.





Bradley Martin Playford Trust Honours Scholarship

Bachelor of Science [Enhanced Program for High Achievers], Flinders University

Trait and species selection influences the outcomes of marine monitoring

Marine monitoring programs are increasingly using the characteristics or traits of organisms to understand their response to environmental and anthropogenic pressures. Conceptually, selective pressures favour certain traits over others, influencing the types and abundance of organisms in a given space and time. Trait-based approaches can therefore be applied across diverse species and environments to establish general trait baselines and inform coastal management. My project investigated the distribution of fish and macroinvertebrates from Coffin Bay, on Eyre Peninsula in South Australia. I evaluated the influence of trait and species selection using survey data obtained from underwater video deployed across the Coffin Bay estuary system in 2015 and 2019. I compiled a trait database and compared how the number of traits (few traits versus all traits) and species influenced the results. The benefit of doing this was to investigate the usefulness of trait information and its application across dissimilar species.

I found no differences between years but detected trait and species differences between sites due to environmental conditions. The results indicated that applying a few ecologically informative traits across different species offer an efficient and practical strategy for understanding how assemblages respond to selective pressures.

Matthew Hill

Playford Trust Honours Scholarship

Bachelor of Engineering [Honours] [Electrical], Flinders University

Smart Meter Data Analytics – Increasing network visibility to further the renewable energy hosting capacity of the South Australian electricity distribution network

Accurate and reliable information on the rooftop photovoltaic (PV) generation systems connected to the South Australian distribution network becomes increasingly important as sections of the network begin to reach their hosting capacity. My project sought to employ smart meter data analysis techniques, such as machine learning algorithms, to validate and improve the accuracy of SA Power Networks' Distributed Energy Resources register (the database of all known rooftop PV systems connected to the South Australian distribution network).

Several PV identification and capacity estimation algorithms were developed, adapted and evaluated using a dataset containing data from approximately 154,000 customers. Through the performed assessments, the utility of these techniques in providing a mechanism to validate and improve the accuracy of the Distributed Energy Resources register was demonstrated. This provides an opportunity to improve the accuracy of dependant business processes, such as when assessing the rooftop PV generation hosting capacity of the network.

Supported by the Playford Trust Scholarship, I achieved First Class Honours and was selected to present my project at the 2020 virtual conference hosted by the Electric Energy Society of Australia (EESA). I have now started my career as an electrical engineer with SA Power Networks.



Brooke North

OZ Minerals/Playford Trust Honours Scholarship

Bachelor of Science [Honours] [Geology], University of Adelaide

Investigating the relationship between rare earth element and copper-bearing minerals to begin to unravel the formational history of Carrapateena

At Carrapateena, an iron oxide copper-gold (IOCG) deposit in the Far North of South Australia, three mineralogical zones are distinguished largely based on copper abundance. Each zone exhibits a distinct rare earth element (REE) compositional signature. To investigate the relationship between copper (Cu) and REEs, my project aimed to date the REE-bearing minerals and characterise their geochemistry in each zone of the deposit. The ultimate goals were to improve understanding of the temporal development of Carrapateena and explore the applicability of REE geochemistry to mineral exploration.

The key findings of my research are that almost all of the dates recorded by the REE-bearing minerals are younger than the published deposit age of Cu 1590 Ma (million years). Copper may not have been introduced into the Carrapateena mineral system until circa 1450 Ma. Additionally, one REE-bearing mineral (apatite) displayed different REE compositional signatures in each zone of the deposit. These trends are similar to those from other IOCG deposits in SA and offer insight into evolving fluid conditions during IOCG deposit formation.

OZ Minerals have been a tremendous support this year, and I enjoyed getting the opportunity to speak to members of the Executive Committee and record podcasts about my experiences. I am now working with them as an exploration geologist.





Jasper Willoughby Playford Trust Honours Scholarship

Bachelor of Science [Honours] [Marine Biology], Flinders University

Investigating ecological communities on coastal armour in South Australia.

Natural shorelines around the globe are being replaced with hard coastal armour, such as seawalls, to mitigate coastal erosion and the effects of rising sea levels. The replacement of natural shorelines with coastal armour leads to a loss of native biodiversity and a shift in ecological community structure. My project provides a snapshot of the difference in ecological communities between natural rocky shorelines and coastal amouring structures along the coastline of metropolitan South Australia.

While there was a similar suite of species in both habitats, natural shorelines showed higher diversity, and coastal armour was dominated by one or two turfing species. This difference is thought to be due to greater availability of microhabitats on natural shorelines (for example, crevices and rockpools) which coastal armour does not possess.

In 2021, I am investigating the potential difference in food webs and relating this to the ecosystem services these habitats provide to determine whether coastal armour is an appropriate substitute for natural shorelines.



Jackie Arends Playford Trust Honours Scholarship

Bachelor of Engineering [Honours] [Mechanical]|Bachelor of Finance, University of Adelaide

Next generation gas turbine combustors

It is widely understood that the use of combustion in our everyday lives for transportation and energy generation is not likely to change anytime soon. Unfortunately, traditional combustion methods are notorious for emitting large amounts of pollution, which is harmful for our environment.

Existing research on moderate or intense low-oxygen dilution (MILD) combustion has found it reduces pollutant emissions and improves thermal and fuel efficiencies. The research my team and I conducted built upon existing work looking at how MILD combustion could become a reality for large-scale applications. Our work focused on developing a series of tools to aid the experimental configuration of a confinedand-pressurised jet-in-hot-coflow (CP-JHC) burner, by predicting the combustion conditions. This was explored using a variety of facets, but my personal contributions focused on exploring how machine learning can be used to predict combustion conditions.

Our work showed that a decision tree regression algorithm was able to successfully make predictions of parameters like temperature and chemical composition. I can foresee that these tools will simplify the staging and execution of many different configurations of conditions within the CP-JHC burner and will aid the understanding of how combustion conditions change with pressure.

Kevin Grant AusIMM/Playford Trust Honours Scholarship

Bachelor of Engineering [Honours] [Chemical], University of Adelaide

Increasing copper recovery and grade during flotation

With growing demand for copper due to its use in clean and renewable energy, increasing copper recovery and grade is of interest to the minerals processing industry. An important stage in copper recovery is flotation. An environmentally friendly amino acid and high chrome grinding media have shown potential to improve copper flotation.

By completing laboratory scale grinding and flotation tests, both the effects of high chrome grinding media and the addition of the amino acid were statically compared. The results indicated that high chrome grinding media does improve copper metallurgy and the amino acid improves



copper grade. Based on the positive outcomes observed, it is recommended to validate results with further testing, followed by plant trials.

I have thoroughly enjoyed my research with Magotteaux Australia and the University of Adelaide – and the experience this scholarship has given me. I hope to see my research improve plant performance and reduce environmental safety concerns in the industry.

Brandon Turner

Playford Trust Honours Scholarship

Bachelor of Science [Honours], University of South Australia

Beach day for frogs may cure fungus disease

My project looked at the relationship between increasing salinity levels in freshwater bodies and the spread of the deadly amphibian fungus disease chytridiomycosis. The aim was to investigate how far spread the fungus has become in South Australia since the last major survey in 2014, and to see if housing infected frogs in a saline environment would cure them of the disease.

My research showed that the frogs used – Common Eastern froglets (Crinia signifera) – can be cured of an infection, with 85% of the frogs housed having their infection status change to negative. There is still a lot to be learned about the relationship between salinity and chytridiomycosis, but my research shows great promise in one day curing this disease, which is threatening global frog populations, and potentially saving many endangered species from losing their final wild populations.



Imogen Marshall

Playford Trust Honours Scholarship

Bachelor of Science [Honours] [Biodiversity and Conservation], Flinders University

Restoration genomics of a threatened small-bodied fish in the lower Murray River

Southern pygmy perch (Nannoperca Australis) are a small-bodied fish endemic to southeastern Australia. A population from the lower Murray River would likely have gone extinct during the Millennium Drought if not for a genetically informed exsitu breeding and reintroduction scheme.

My Honours project aimed to characterise the long-term outcomes of the reintroduction program using genomic data. My results indicated low inbreeding and strong maintenance of neutral and adaptive genomic diversity across multiple generations postreintroduction. This is a great success for the program as inbreeding can reduce the fitness of individuals, and genetic diversity is essential for the evolution of populations through adaptation to changing environments. There was also an increasing trend in the size of the reintroduced population, consistent with field monitoring data, and indicative of continuing recruitment in the wild.

My study has therefore provided an empirical example that the adaptive potential of a locally extinct population can be maintained via genetically informed conservation breeding and reintroduction into the wild. Importantly, this knowledge directly informs conservation initiatives for the species and will help guide the genetic management of other threatened species subjected to ex-situ conservation programs.

Sean McGowan

Playford Trust Honours Scholarship

Bachelor of Mechanical Engineering [Honours]|Bachelor of Mathematical Sciences, University of Adelaide

Battery-less sensors for ocean monitoring

My research aimed to design and build an energy harvesting device capable of powering subsurface ocean monitoring equipment in a wireless sensor network (WSN). The climate of the Earth is directly influenced by the temperature of the ocean and, with accurate data, more reliable climate models can be produced.

An important aspect of quantifying the rate of climate change is subsurface temperature measurements, which cannot be achieved using traditional satellite methods, and hence requires a novel approach. Harvested energy is a reliable power source that allows an environment to be monitored without the need for a battery that requires regular replacement. The need to eliminate battery maintenance is important when the WSN is isolated or difficult to access. The developed system produces vortex induced vibrations from low-speed subsurface ocean currents. These vibrations stress a magnetostrictive smart material, producing a magnetic field which induces a voltage across a pick-up coil.

Through simulation of the expected dynamics, a prototype system was developed. Vibration platform testing determined that the maximum average power output of the device was $13.2 \,\mu$ W. This device has the potential to provide a scalable, maintenance free, subsurface ocean monitoring system, to provide accurate data for climate models.







April Van Der Kamp Playford Trust Honours Scholarship

Bachelor of Science [Honours] [Biological Sciences], Flinders University

Invasion: The changes in a bacterial community during colonisation

In 2020, I focused my research on how a bacterial community establishes during colonisation, building on a study conducted in 2017. This is an important research area as current literature frequently focuses on pure cultures, which eliminates important dynamics such as complex population interactions that have major influences in community establishment.

This research led to developing a labbased model system to investigate how communities partition in microspatial environments, which is difficult to study in vitro. Flow cytometric results are fascinating as they depict prominent changes occurring between samples collected side by side. Results will be further compared with sequence data to identify bacterial species present in samples and how the community has evolved during colonisation.

Current findings reiterate the importance of complex interactions in shaping how bacterial communities invade and colonise environments. This lab-based model has the potential to be adapted for use in modelling how infections spread in wounds and in how natural communities such as the gut microbiome partition. My experiences during Honours have inspired me to undertake a PhD, applying the knowledge gained in modelling complex community interactions to a clinical based setting looking at diabetic foot ulcer infections.

Undergraduate student reports



Curtis Kleinig Playford Trust Regional Science & Engineering Scholarship

Bachelor of Engineering [Honours] Electrical and Electronic, Bachelor of Business, University of South Australia

In this first year of my degree, I completed a variety of topics relevant to the field of engineering – and most enjoyed mathematics, computer programming and electrical systems. I took a particular liking to these subjects because they introduced new and difficult concepts which will be essential to my ongoing studies.

I took the opportunity to join the UniSA Motorsport club, and this allowed me to apply some of the skills I have learned to a real-world engineering problem, and to build networks with recent graduates and current undergraduates. In October I joined the management team as electrical manager and have already gained valuable leadership experience.

My goal remains to work in the renewable energy or defence sectors once I have completed the Honours year of my degree.

Ani Baker

Playford Trust Regional Science & Engineering Scholarship

Bachelor of Science (Advanced) (Honours), University of Adelaide



Having always lived in the lesser-known rural district of Rockleigh and completed my secondary education at Oakbank Area School, the transition to studying in the bustling city of Adelaide was

daunting. In 2020, I was not yet prepared to relocate and instead endured 1.5 hours of travelling (each way) by car and bus for the weeks before COVID-19 threw a spanner in the works of my campus experience.

However, amidst the restrictions, I worked diligently and succeeded in achieving high distinctions for all my courses. I relished every opportunity to undertake practical work in the university's biology and chemistry laboratories. My enthusiasm for these subjects has further flourished and I found great enjoyment in exploring additional topics such as neuroscience and ecology in second semester.

My aspirations to pursue a career in biochemical or environmental research have been further solidified, and I am eager to discover the opportunities that await me in the near future.

Jessie Grundy

Playford Trust Regional Science & Engineering Scholarship

Bachelor of Engineering [Honours] [Biomedical], Bachelor of Medical Science, Flinders University



I have just completed the first year of my double degree and have thoroughly enjoyed the transition from secondary school to the self-driven learning environment of university. I was very

happy with my results from Semester 1 – all High Distinctions – and despite an illness in Semester 2, I was still able to achieve Distinctions and High Distinctions.

I have particularly enjoyed the higher level of learning in biology and chemistry. The up-to-date laboratory equipment has made all our practicals fun learning experiences. I am hoping to earn an international exchange in a biomedical field to enhance my exposure to future opportunities.

Holly Baldock

Playford Trust Regional Science & Engineering Scholarship

Bachelor of Science [Advanced] [Honours], University of Adelaide



My interest is chemistry and I prefer to take a systematic approach to my studies, while furthering my understanding of research concepts and scientific writing. In this first year of my degree,

I found courses involving mathematics, physical chemistry and the core principles of scientific research most enjoyable. I want to major in chemistry and applied mathematics and hope to pursue postgraduate coursework and a career in academia.

After relocating from Mount Gambier to reside at Lincoln College, I was awarded the first year Dux Litterarum for the science cohort within the college, and I maintained a 7.0 GPA despite the challenges of online learning. I was also nominated by a representative at the university to participate in the Australian Institute of Nuclear Science and Engineering's WISE (Women in STEM and Entrepeneurship) School, which provided networking opportunities with mentors and a virtual tour of Australia's Nuclear Science and Technology Organisation.

Joshua Mason

Chartwells/St Ann's College/Playford Trust Residential Scholarship

Bachelor of Engineering [Mechanical] [Honours], Bachelor of Finance, University of Adelaide



This year was the most difficult of my three years of college and university so far. Having to move home for three months was challenging and studying through those three months took a lot of motivation

and effort. Online learning took a large amount of getting used to and initially I struggled with it.

I am now back at St Ann's for a fourth year in the role of President. I am extremely excited to be able to continue to give back to the college that has given me so much more than a home over the last three years. On completion my degree, I hope to be able to get a job in Adelaide with a local engineering firm and to help give back to the wider community.

Undergraduate student reports



Caitlyn Poel Playford Trust Regional Science & Engineering Scholarship

Bachelor of Science/Master of Teaching [Secondary], Flinders University

I began my double science and teaching degree focusing on biology, chemistry and maths. I really enjoyed the challenge of university and am looking forward to the experience of upper-level science topics. My favourite aspect was learning about the adolescent brain and how to best assist during periods of learning.

My scholarship allowed me to focus on my studies without the financial pressures often borne by regional students at university. I've been able to live in a residential community that balanced the academic nature of my degree with the social experience that is critical to enjoying university and residential college life.

I'm looking forward to practical teaching experience in my second year and hope it is the start of an enjoyable and rewarding career as a secondary teacher. Combining my science degree with a teaching component will give me the opportunity to teach STEM to secondary students and hopefully inspire a love of science similar to my own.



Ben Havelberg Chartwells/St Ann's College/ Playford Trust Residential Scholarship

Bachelor of Mathematics and Computer Science, University of Adelaide

Having completed my secondary education at Edward John Eyre High School in Whyalla, I relocated to St Ann's College at the beginning of 2020 and began studying mathematical and computer sciences at the University of Adelaide.

Living at St Ann's really helped me settle into Adelaide well. I have created many friendships and have had a lot of fun getting involved in all the activities of college life. This year, I am serving as College Club Treasurer and this will help me give back to the college community.

I have discovered a passion for computer programming and working on some challenging projects has given me the freedom to solve complex problems. I have also enjoyed meeting like-minded individuals and broadening my network. I now plan to major in programming and expand my industry connections to better gauge my career pathway.



Paris Pauling Playford Trust Regional Science & Engineering Scholarship

Bachelor of Science [Honours] [Enhanced Program for High Achievers], Flinders University

My introduction to university has been fantastic. Despite last year's challenges, I have adored my course of study and have found myself more enthusiastic about my future in science than ever before.

I have really enjoyed all of my chemistry topics, but especially CHEM1102 Modern Chemistry, as the unparalleled freedom to problem-solve in the laboratory has built my confidence and developed my skillset in ways that would not be possible in a more typical content-driven topic.

I am aiming for a career in chemistry research, specifically materials science, as I am passionate about the inherent critical thinking associated with this field. I was incredibly excited to be able to gain hands-on research experience at the Chalker Research Lab, on-campus at Flinders, over the 2020/21 summer break.



Charlotte Mackenzie

Adelaide Hills Council/ Playford Trust Scholarship

Bachelor of Medicine, Bachelor of Surgery, University of Adelaide

Throughout 2020, I was able to experience university life and explore the many areas that medicine has to offer. We have covered a wide variety of content – from basic anatomy to clinical applications with patients. I have enjoyed exploring the importance of applying knowledge to real-life clinical scenarios in classes and learning the complexities of medicine and its effect on different parts of society, for example, rural communities.

Although the year brought many challenges, it allowed me to adapt and discover new and engaging ways of learning. I now look forward to exploring many more of the clinical aspects of medicine and considering where this could take me. In the future, I hope to continue to work closely with others – and my community – to find solutions to modern day health concerns and accessibility.

Partnerships at work

Throw them a challenge...



Wendy Beeston and Adam Freeling are proof that there's real value in asking Playford Trust scholars to address practical problems in industry.

In Wendy's case, the outcome was of direct benefit to her sponsor, engineering company Aurecon. Her work-based project focused on reducing the labour required to run the company's profile extrusion line – an area the electrical and mechatronic engineering student suggests was "ideal for automation".

"To conduct this research, the existing line

was modelled, and the line layout mapped," Wendy explained. "A unique tool had to be designed for the robot to carry out the manual handling, as well as additional equipment to transfer the parts to this tool. These were imported into simulation software where a robot was added and programmed to conduct the tasks.

"The simulation showed it was possible to eliminate 90% of the labour requirement during production and reduce the overall component cost to less than 25% of the original cost.

"The overall design was implemented in a way that would not impact employee safety and would show a payback period of less than two years on the capital investment costs."

Wendy is studying at UniSA. She received an Aurecon/Playford Trust Women in Engineering Scholarship in 2020.

Adam's work with OZ Minerals saw him address a challenge for the mining industry as it adapts to greater use of renewable energy. A fifth of the world's copper is purified using an electrical process called electrowinning, which requires a great deal of energy and is generally continuous. This can be problematic when energy prices are highly variable.

The company tasked Adam with proving the concept of intermittent electrowinning which could use renewable energy as much as possible.

"Working at a laboratory scale, we proved that by utilising a very small amount of electricity – 10% of normal operational levels – the electrowinning could be kept stable until electricity prices returned to normal levels," Adam said. "This highlights the viability of the process and allows work to continue with scaling up from the laboratory.

"OZ Minerals supported us with technical assistance throughout the project, and even welcomed us to their office to use the X-Ray Fluorescence technology to determine the lead content of the copper we produced."

Adam is studying chemical engineering at the University of Adelaide. He received an AusIMM/Playford Trust Minerals Industry Scholarship in 2020.

Nyrstar nine brought 'fresh insights'

With the support of Nyrstar, the Playford Trust offers two-year scholarships to students commencing their third year of undergraduate studies in chemical, mechanical or electrical engineering at one of the State's three universities.

The bonus for each scholar is an eightto-12-week paid work placement at the company's Port Pirie Smelter over the summer holidays. Working with senior staff, they undertake technical projects and have the chance to apply their university knowledge in an industrial setting.

In 2020, the company also offered vacation

work to two students recommended by the Trust, making a nine-strong team in total. And all made quite an impression.

"The students were capable, enthusiastic and hard-working and we enjoyed having them as part of our team," said Bill Watt, Nyrstar's Manager, Technology. "It gives us confidence in the future and an insight into the skills and interests of the next generation of potential staff.

"It was an important but fun learning experience for the students and the Nyrstar management teams valued their fresh insights."



Fresh from summer vacation work at the Port Pirie Smelter. L to R: Playford Trust Scholarship holders Josephine Matthias, Elsie Potezny, Conor Noonan (vacation student), Jack Walsh, Amelia Johnson, Samuel Wallis (vacation student), Thomas de la Perrelle, Joshua Davis and Chetan Gautam.

For their part, the students greatly appreciated the opportunity to learn. Here are just a few of their comments.

"The unique experience of working in a large, industrial site with unique safety requirements will provide a different outlook in my future career and should make me a better engineer." **Thomas de la Perrelle**

"The project management/engineering experience that I've received in my time here will help me no end when I finish studying and enter the full-time workforce, as I have already worked on a couple of million and multimillion dollar projects." **Conor Noonan**

"By getting a first-hand insight into the life of a metallurgist I learnt the important attributes needed to preform daily tasks... including problem solving, critical thinking, communication and professional conduct." Elsie Potezny

"I now have a clearer idea of where my studies can take me. I have also improved many of my personal and professional skills throughout my time at Nyrstar, making me more confident and comfortable with many of the aspects of being an engineer." Josephine Matthias

"Although I have done project management courses in university, firsthand experience of project management, and being able to run a real project... was a different and motivating experience." **Chetan Gautam**

Alumni updates

Cathy Apps

Cathy (pictured below) completed her studies at Urrbrae TAFE and now runs a successful landscape design business – Catnik Design Studio – in Adelaide.

She used her 2018 Playford Trust/TAFE SA award money to learn about strategic marketing and promote the studio. Cathy says this "changed the direction of our business in a few short months".

"This boost to our bottom line and confidence allowed us to dream. We are incredibly busy and love the work.

"My husband left his job as an accountant to work full-time in the business, which has grown exponentially, and we have contractors working for us when we need additional support.

"We are so grateful to the Playford Trust for assisting, recognising and supporting South Australian scholars."



Kate Delaporte

In 1996, Kate was only the third student to receive a Playford Trust scholarship.



The funding helped support her PhD studies at the Waite Campus of the University of Adelaide – specifically, her investigation of eucalypts for ornamental horticulture, for which she eventually received her Doctorate.

Fast forward, and Kate is now Curator of the Waite Arboretum and Senior Lecturer at the Waite Campus. She has maintained her connection with the Trust throughout her career and accepted an invitation to join the Board in 2011, saying it was "a great chance to give back to the organisation that provided me with so much".

Kate manages the TAFE SA and Open Gardens Awards and is on the selection panel. She also works with members of the Scholarship Committee, who have "the hard task of selecting students!"

Of her 25-year association with the Trust, Kate says, "it has certainly opened doors career-wise and I have met wonderful and inspiring people across all walks of life, and made some lifelong friends".

In brief

Jillian Moffatt (2015) recently completed her doctorate on fluorescence identification of minerals and is now working on developing and testing prototype mineral sensors with the Institute of Photonics and Advanced Sensing at the University of Adelaide and an Adelaide-based company. She hopes to continue to work in research into the future.

Bec Pedler (2019) is in the third year of a Bachelor of Science (Honours) at Flinders University and has developed an interest in aquaculture and in particular product quality, animal health and aquatic disease. She has contributed to research on summer mortality on abalone farms and volunteered in the SARDI oyster hatchery.



Georgie Duguid

Georgie completed a Bachelor of Civil Engineering at Flinders University and now works as a structural design engineer with Mineral Technologies/ Downer EDI, where she completed her undergraduate placement.

"As structural engineers, we face real world technical problems every day, such as the corrosion of ageing steel structures and degradation of concrete," says the 2018 Playford Trust Honours scholar. "This is compounded by the global need to minimise our environmental impact by sourcing more sustainable alternatives to replace conventional finite construction materials.

"Every day I have had the chance to work to solve these problems, all while ensuring designs are compliant and safe for society to use. Through my mining site visits I have had the opportunity to see these problems firsthand; whether it be jumping in confined-space pontoons beneath water on floating marine structures, or climbing all the way up a 40-metre ladder tower to inspect corroded steel."

Georgie says she is excited to keep learning and hopes to one day get back to research and development in structural materials and design practices.

Support the Playford Trust

Become a partner

Working with organisations and individuals in the community allows the Playford Trust to significantly increase the reach and value of its scholarships, awards and internship programs.

For industry, government and community partners, funding a Trust program is an excellent way to identify new talent and gain access to valuable research undertaken by some of the State's best students.

Partner-student relationships can involve work experience, site visits, project work or involvement in committees. Partners can be involved in determining the type of support to be provided, the selection of recipients and the monitoring of their progress. The Trust works with the universities and TAFE to match students and research projects with each partner organisation's specific needs or, in the case of foundations and individual donors, their passion or preference.

Scholarships, grants and internships are made either in the donor's name or jointly with the Trust. When appropriate, the Trust may supplement the scholarship to increase its value and appeal.

The Trust calls for and assesses applications and also handles administration and payments.

The support of contributing partners is publicised through the Trust's newsletter, on its website, through the media and at annual scholarship awards nights attended by leading members of the business, community, government and university sectors.

For individuals or organisations, partnering with the Trust is supporting South Australian ingenuity.

Become a donor

If you're inspired by the students the Playford Trust supports, you might wish to consider a donation to add to the value of its work.

For information about donations, bequests and partnering, please visit **playfordtrust.com.au/funding.**

To make a secure online credit card donation, visit **givenow.com.au** and search for Playford Trust.







CONTACT US Our Executive Officer can put you in touch with a Board member to discuss options for supporting the Trust's work. Contact us by email: admin@playfordtrust.com.au, phone: (08) 8429 5220, or mail at: The Playford Memorial Trust Inc. GPO Box 2343, Adelaide SA 5001 **SUBSCRIBE** to our eNewsletter to keep up-to-date with what's happening: www.playfordtrust.com.au/contact-us

playfordtrust.com.au The Playford Memorial Trust Inc.

