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For immediate release

Osteoarthritis researcher wins \$5,000 in AMP IGNITE competition

Auckland University student, Emily Hargrave-Thomas has won the inaugural AMP IGNITE competition, winning \$5,000 for to help further her research project into osteoarthritis. Emily aims to understand how the disease develops so that it can be detected before patients visit their doctor with joint pain.

Emily beat strong competition from 11 other finalists all of whom had just 150 seconds (2.5 minutes) to pitch their ideas to the judges' panel in an entertaining performance evening through a combination of storytelling, performance art, dance, comedy, music and even magic.

Additionally, Massey University student Kayleigh Evans, won \$1,000 in the "people's prize" chosen by the audience for her research around controlling the reproduction of cancer cells. Kayleigh is aiming to develop a molecule that can be used for blocking 'resource pathways' that cancer cells need to access for tumour growth. As cancer is one of the leading causes of hospitalisation and death in NZ and other developed countries, Kayleigh's research will further the development of better cancer drug therapies with minimal side effects.

James Georgeson, Director of Strategy, at AMP says: "Congratulations to both Emily and Kayleigh – the results of their research will have significant health benefits for the 21,000 New Zealanders diagnosed with cancer each yearⁱ and the 300,000 New Zealanders suffering from osteoarthritisⁱⁱ."

"The calibre of the participants at last night's event was so high, that we decided to award all 12 finalists \$1,000 towards their research projects. We had a great response to our call for entries and we are excited about giving all these future innovators the chance to achieve their research dreams," continues Georgeson.

"The great thing about the event was the coming together of business and academia in an environment of creativity, theatre and comedy as the bridge between the two. In the future, the two are going to be inextricably linked and we believe this event is a great opportunity for these students to be ahead of the pack when it comes to pitching their ideas to the business world," he continues.

"The ability to confidently communicate their research to the public in a way that is accessible and can be understood by everyone is also going to be extremely important. The reality is that if they can't convince business that their research projects matter, funding may not be available. Being involved with AMP IGNITE will help them prepare and innovate for the future world in which they'll be operating," concludes Georgeson.

AMP IGNITE was hosted by media presenter and producer Oliver Sealy, was judged by key

business executives and the applicants were mentored by New Zealand entertainment and media personalities.

ENDS

For further information, or high resolution photography of the winners, please contact, Dee Crooks, Head of PR and Communications at AMP, on 09 337 7281 or 027 886 2119.

Notes to Editors

Further information on finalists:

Edward Willis – University of Auckland

Edward is a public law scholar with a passion for helping Governments make great decisions. Edward's research investigates what it is about NZ's 'unwritten' constitutional structure that makes it genuinely distinctive, and how it influences the decisions of governments and officials. His research helps to build the conceptual tools that explain the values that underpin great government in NZ. By developing a better understanding of how government works and how it can be influenced, higher standards within government and more accountability for the people it serves can be achieved.

Matthew Proctor – University of Auckland

Matthew's research is about using computers to predict the behaviour of geothermal power plants (Rankine Cycle), and how to run them to produce as much electricity as possible when faced with changing conditions e.g. variable weather and temperature changes. Matthew believes his research will help society to benefit from cheaper, greener, more reliable energy.

Kristen Hamling – AUT

Kristin is examining whether psychological states in emergency service workers can be enhanced and sustained using 'proactive interventions' leading to superior health and performance. With an unprecedented number of challenges facing society today, emergency service workers end up bearing the brunt of them e.g. rising unemployment, the growing divide between rich and poor, rising mental health issues etc. As emergency service workers are faced with making critical decisions everyday she believes we need this workforce to turn up to work in the best state possible.

Sarvnaz Taherian – University of Auckland

Sarvnaz explores the usability and effectiveness of a brain controlled computer device that assists people with severe physical impairments. People with disabilities often miss out on life's necessities such as education, employment and social activities. Brain-computer interface technology does not require any physical capability by the user as it's controlled by electrical activity of the brain. This opens doors for users of the technology as they'll have independence, the potential to communicate, interact with their families and environment, and will have access to education and employment.

Pauline Herbst – University of Auckland

Pauline is trying to find out whether children diagnosed with rare genetic disorders are defined by their illness, whether they understand their disorder, how they explain it to others and how they develop their identity over time. Pauline's research will help medical professionals, affected families and governments understand the impact of a diagnosis on affected children and how they understand and develop their sense of self. She is interested in how this 'genetically marked' generation will affect ethics in the future?

Lawrence Xu – University of Auckland

Lawrence's research looks at ancient Egyptian hieroglyphs and epic stories including tales of romance, politics, magic and more. He translates and analyses the stories to gain insights into how intelligent the ancient Egyptians were by how they wrote, and how the key themes and learnings can be applied to the world today. Ancient Egyptian narratives teach society important tools such as critical thinking, analytical processing, communication skills, and forward planning. Lawrence's particular research also analyses leadership, dialogue manipulation and mediation.

David Framil Carpeno – University of Auckland

David's research looks to improve the bonding between metals and ceramic coatings. In other words, how to make them stay glued together for longer in extreme environments. He uses nanoblades, electron-beam-fried crystals, lasers and helium bubbles. Some situations benefit enormously when metals and ceramics perform together e.g. higher thermodynamic efficiency in a turbine so less fuel is burnt to achieve the same power output; a safer hip implant with decreased complications or a drilling bit with a hard coating that doesn't chip-off easily.

Emily Hargrave-Thomas – University of Auckland

Emily is studying osteoarthritis from an engineering perspective, to understand how the disease develops, using engineering tools like microscopic imaging and mechanical testing. Osteoarthritis affects about 80% of people over the age of 65. As life expectancies increase, people are burdened with joint pain for decades. If we can understand how osteoarthritis begins and progresses, we may be able to develop methods to detect it before a patient visits a physician with joint pain and provide preventative treatments.

Matias Kinzurik – University of Auckland

Matias modifies yeast cells to make better tasting wine. He aims to understand how yeast cells make aroma compounds, what genes are involved and how they're regulated. A better understanding of the genetics involved in yeast aroma compounds could not only improve wine taste, but also the taste of other fermentation products like cheese and beer which could open up new market niches worldwide.

Kayleigh Evans – Massey University, Albany

Kayleigh's PhD is based around controlling the reproduction of cancer cells and she hopes her research will result in the development of a molecule that can be used for blocking 'resource pathways' that cancer cells need to access for reproduction/tumour growth. As cancer is one of the leading causes of hospitalisation and death in NZ and other developed countries, Kayleigh's research will further the development of better cancer drug therapies with minimal side effects.

Sarah van Rooyen – AUT

Sarah's research is about finding ways to toughen her generation up and developing Mental Toughness (MT). Her research investigates MT in employees, and how MT relates to work performance and wellbeing. Incredible contributions to mankind have been missed because people didn't have the MT to maintain control and composure under pressure. Sarah's research is aimed at identifying effective interventions for MT so society can get the most out of skills and abilities which contribute to making the world a better place.

Tawhanga Nopera (Richard Kereopa) – University of Waikato

Tawhanga's research explores how indigenous art processes can help people today using the practice of Maori weaving to express ideas in creative writing, digital image and video, and

performance artworks. As indigenous art-making can provide a template toward social wellbeing Tawhanga uses the concept of the flax plantation to symbolise how values are exchanged through social transactions. His project takes apart our material world and investigates the transmission of social hierarchies.

AMP IGNITE Judges

- **Andy Hamilton** - CEO of innovation incubator The Icehouse. The Icehouse uses nationwide events, workshops and programmes to give startups and SMEs access to the expertise, networks and funding they need to achieve their growth aspirations and become Businesses of International Quality.
- **Tim Alpe** - CEO and co-founder of the New Zealand company, JUCY Group Limited, which has branches in New Zealand, Australia and the USA. From 2001 with only 35 vehicles, JUCY has grown to become one of the biggest tourism companies in Australasia with over 2,700 vehicles and more than 240 employees. Their niche in the tourism market is young, fresh and JUCY, and they offer accommodation, rental vehicles and campervans to 300,000 customer annually
- **Annalie Killian** - Director of Innovation and Social Business at AMP Australia and the Founder and Curator of Amplify and the Bright Sparks event in Australia
- **Therese Singleton** - Executive Legal Counsel at AMP. Therese was born in Ireland, admitted as an Irish solicitor in 1994, as a solicitor in England and Wales in 1995 and in 2002 was admitted as a solicitor and barrister in New Zealand. Therese oversees AMP's legal and compliance functions
- **Shaun Philp** – General Manager, Human Resources. Shaun has more than 15 years' experience in the financial services, telecommunications and media industries, in organisational development strategy, leadership development and coaching. Shaun leads the New Zealand human resources team, and his career with AMP includes three years based in our Sydney office as Head of Leadership, Learning and Development.

AMP IGNITE mentors:

- **Urzila Carlson** – comedienne, a regular panellist on 7 Days, and she has appeared on A Night at the Classic and The Jono Project
- **Dr Michelle Dickenson (aka Nano Girl)** - the director of New Zealand's only Nanomechanical testing laboratory, Michelle has a PhD in biomedical materials engineering and she has regular slots on national television and radio
- **Tim Groenendaal** – manager of The Feelers & Anika Moa and co-creator of Siren Records of which Goldenhorse was its first artist
- **Peter Vegas** – gag writer for Radio Hauraki, host of Max TV & Creative Director at a number of New Zealand's largest advertising agencies
- **Richard Gourley** – inaugural supreme winner of the PSP Design challenge for his outdoor solar shower installation and its solar thermal heating application.

ⁱ <http://www.health.govt.nz/our-work/diseases-and-conditions/cancer-programme>

ⁱⁱ <https://www.southerncross.co.nz/AboutTheGroup/HealthResources/MedicalLibrary/tabid/178/vw/1/ItemID/132/Osteoarthritis-symptoms-diagnosis-treatment.aspx>