

JULY 2015/ JUNE 2016 Annual review

Approved by the **veski** board of directors on 16 November 2016

Inspiring Innovation veski's vision is to foster a culture of innovation to support Australia's knowledge economy. Our mission is to engage globally competitive individuals and develop a sustainable, world-class program of activities, resources and collaborations to enhance our innovative society



























at a glance



July 2015

Three **veski** innovation fellows, Associate Professor Roger Pocock from Denmark, Professor Colby Zaph from Canada, and Professor Richard Sandberg from the UK were welcomed to Victoria by the Hon James Merlino, Deputy Premier, Deputy Leader of the Labor Party and Minister for Education.

The Victorian Postdoctoral Research Fellowships were announced by the Victorian Government Lead Scientist at a gathering of **veski** connection members.

August

More than 150 students and their teachers from Neerim District, Mooroopna and Kyneton Secondary Colleges attended **veski's** Big Dig event with Bug Blitz at the Melbourne Museum during National Science Week.



September

A **veski** conversation tackling issues in 'Big Data' held on 10 September brought together leaders from industry, government and academia.

Specialists told **veski's** fourth inspiring women professional development & networking event that confidence and being true to yourself, are key to successfully promoting yourself and marketing your talents in the STEM sector.

Bug Blitz - The Big Dig Program was delivered at Mooroopna Secondary College.



October

The Minister for Industry, Lily D'Ambrosio officially announced the recipients of the prestigious Victoria Prize for Science and Innovation and the Victoria Fellowships.

More than 60 year 9 and 10 students from across regional Victoria were given the opportunity to experience real world science with a visit to the labs at CSIRO and Monash University.

veski's inaugural kickstart event Research to Industry – Post Docs and PhDs on the move brought together 55 Post-Doc and PhD students from six universities to meet with industry leaders and learn about pathways beyond academia.

As part of a **veski** masterclass, research teams from Austin Health, Biomedical Research Victoria, Peter MacCallum Cancer Centre and Monash University explored the relationships between the elements of a 'system' in their team and organisation.



November

As part of **veski's** sustainable agriculture program, **veski** supported the visit by Professor James Clark from the Green Chemistry Centre of Excellence at the University of York, UK for the GV21 Symposium Collective Opportunities held in Shepparton.

During Professor James Clark's visit, **veski** hosted a **veski** activation which included a panel discussion on "what to do with the leftovers?" with leaders in academia.

The 2015 **veski** residency with Dr Siobhán Jordan, Director Interface Scotland included an RMIT Business Lecture, **veski** discussion for technology transfer and knowledge exchange professionals and a **veski** conversation.

Dr Siobhán Jordan delivered the keynote at the **veski: new horizons** event attended by members of the **veski** connection.

veski launched the inspiring women portal with access to information, tools and resources to support women in Victoria in advancing their careers.



December

The Hon. Jaala Pulford MLC, Minister for Agriculture and Regional Development announced the inaugural recipients of the **veski** sustainable agricultural fellowships in Shepparton.

The Honourable Linda Dessau AM, Governor of Victoria presented the inaugural inspiring women fellowships to Dr Maria Liaskos, Dr Catherine Satzke, Dr Natalie Hannan and Dr Emily Nicholson.

veski chair Professor Snow Barlow retired and current **veski** board member Professor Ian Smith was appointed as the new chair.



April

veski hosted a roundtable with Victorian Deputy Vice Chancellors for research focused on the development of a new industry and academia collaboration.

The Hon Philip Dalidakis MP, Minister for Small Business, Innovation and Trade presented the 24th **veski** innovation fellowship to Professor Jon Shah from Germany.

May

veski hosted the inaugural **veski** inspiring women fellows, inspiring women industry interns and other leading women at the eighth BioMelbourne Network Connecting Women in Biotechnology Luncheon.

June 2016

veski and Ernst & Young hosted an RMIT Business Lecture with Dr Pradeep Philip, the inaugural Chief Executive Officer of LaunchVic.

2015 - 2016 veski strategy



veski's vision is to foster an innovation economy.

Our mission is to identify globally competitive individuals and leading researchers and bring them to Victoria for the benefit of the Australian economy.

novation fellowships trategic scientific (pure & applied)	inspiring women fellowships	inspiring students activities
ellowships, prizes & awards delivered fee for service	sustainable agricultural fellowships	community including brokerage of ly competitive ideas. veski inspiring women program
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treach and engagement to drive Vict		community including brokerage of ly competitive ideas.
s ki residencies	veski activations (awards <\$30k)	veski inspiring women program
		veski inspiring women program
ski residencies artnerships with uture Industries Fund	(awards <\$30k) engagement with Victorian	veski inspiring women program
ski residencies artnerships with	(awards <\$30k) engagement with Victorian start-up initiative	

key delivery mechanisms, systems & processes, as well as channels for engagement

skills, training & education

veski masterclesses vesid PD & networking events vesid PD & networking events vesid kickstart sessions vesid residencies

connected innovation community

veski family

- veski connection veski connected community

[citizen innovation]

veski

communications & events

- veski website & e-news veski web portals veski conversations veski program events (og official announcements) veski public events (ag. symposium) veski in the community (og. PMIT Business Lectures)

funding & systems

- Government [state & federal]
- Industry and business support
- Income from fee for service
- programs Philanthropic organisations
- (including veski foundation) In-kind support
- Strategic partnerships

Strong industry engagement across all programs

Increased talent pool in Victoria supporting priority areas

A growing and engaged

veski board



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During 2015 / 2016, the **veski** board of directors comprised Professor Snow Barlow FTSE (retired December 2015), Mr Ron Douglas, Dr Keith McLean, Ms Patricia O'Rourke, Dr Jane Ryan, Dr Mark Shackleton, Professor Ian Smith, Chair, Mr Greg Sword AM, Ms Julia Page, chief executive officer & Company Secretary

visit our website for full profiles on the veski board members

chair's report

Professor lan Smith

By supporting globally competitive individuals, including 24 veski innovation fellows from Asia, Europe and the US now working in Victoria, veski may just hold the key to solving some of the grand challenges facing society, including challenges ranging from our ageing population through the global spread of dangerous diseases to developing next generation technologies for industry.



veski chair Professor Ian Smith, veski chief executive officer Ms Julia L Page, Lead Scientist Dr Leonie Walsh and 2015 veski resident Dr Siobhán Jordan

Since being appointed to the role of **veski** chair in late 2015, I have spent a considerable amount of time sharing the story of **veski's** continued success with colleagues from across the state, nationally and around the world.

I am pleased to be able to share clear evidence of our impact on the state and the country. This evidence, which includes a recent report by SPP Consulting, shows that **veski** has delivered an **18.4 to 1 return on investment** for Victorians from our **veski** innovation fellowships program.

Most significantly, the report also points to the need for continued investment in **veski** to deliver continued development of high calibre networks, continuation of **veski's** leadership reputation in the research sector, and its collaborative links with host organisations and industry bodies.

I am pleased to report that these outcomes have led to **veski** being

awarded ongoing core funding from the State Government of Victoria to support our core programs over the coming 5 years.

While the ROI figures are impressive, the review also revealed numerous direct and indirect benefits; to the state, to government, to host organisations and to the innovation fellows themselves. These benefits include reduced healthcare costs, industry partnerships savings and gains, knowledge of disease and increased revenue.

In terms of research funding alone, our active **veski** innovation fellows have secured more than \$68 million in research income to date, and there is no sign of this return on investment letting up with data suggesting we can expect an ongoing rate of return of \$1.2 million per fellow per year.

I wish to thank the Victorian Government for their continued support of **veski** and the **veski** connection, \$141.4m healthcare reductions





revenues

\$6.4m partnerships & collaborations



\$46.9m industry partnerships savings & gains

through which **veski** has been fortunate to be able to provide a warm welcome to individuals (and their families) joining the Australian research community. I am proud to be a part of this group of individuals and community, connected by a shared quest for innovation, and more broadly our passion for the work of **veski**.

The **veski** board also plays a critical role in supporting this 'soft landing'. Time and time again members of the **veski** board use their personal connections to provide introductions which facilitate a smooth entry into the Australian research community, government and industry. I wish to thank my fellow directors for their ongoing support and commitment to **veski**.

I would also like to add my personal thanks to Professor Snow Barlow for his visionary leadership of **veski** as the chair from 2007 to 2015. During this time, **veski** welcomed 16 **veski** innovation fellows and broadened its program to include a range of activities to inspire students, women, the geographically disadvantaged and countless other groups. There is no clearer evidence of the need for these programs than the constant oversubscription of our events and activities. Programs which would not be possible without the outstanding leadership and commitment that Julia L Page, the chief executive officer, brings to **veski**

knowledge of disease

Julia and her team have done an incredible job over the past 12 plus years building the organisation to where it is today and I commend them on their dedication and commitment to quality.

Going forward, the future for **veski** looks extremely bright. **veski** will continue to build on these established strengths, including continuing to offer an expanded fellowships program with a renewed commitment and emphasis on knowledge translation and industry engagement.

veski will lead the way in supporting greater inclusiveness and equity across the STEM disciplines and innovation careers through the launch of our
 veski inclusion and diversity program, working closely with key segments of this targeted audience to co-design a program of skills, training and education

activities tailored to their specific needs. Early activities under this program include a women in senior leadership event and the development of an exciting summer school festival to bring together our domestic, regional and international students to share ideas and for a unique innovation and cultural experience.

Lastly, following on from the visit of Dr Siobhan Jordan, CEO of Interface Scotland, as our 2015 **veski** resident, **veski** is exploring opportunities to support greater industry-academia engagement, with a particular emphasis on helping our smaller SMEs to innovate and grow.

On behalf of my fellow **veski** board members, I thank all of our stakeholders for their unwavering support and look forward to your continued involvement.

Professor lan Smith veski chairman

chief executive officer's report Traditional Activity of the second seco

Building on **veski's** strong foundations, we have continued to deliver an even wider range of unique experiences for Victorians including high school students, early-to-mid career researchers and global experts. In 2015/16, as well as delivering our flagship **veski** innovation fellowship program, **veski** has launched two new fellowship programs, hosted international guests through our residency program and **veski** conversations, and coordinated a range of training and education programs.

While each program is different, they share the common theme of offering unique experiences to attendees. Experiences range from peer-to-peer mentoring to hands on learning from real-world professionals.

One example is **veski's** inaugural kickstart event, which brought together over 65 post-doc and PhD students from six universities to meet with industry leaders and learn about pathways beyond academia. Another example is our **veski** inspiring women networking & professional development event series, which has allowed hundreds of Victorian women to connect with other likeminded women and gain knowledge they have taken back and implemented in their own work.

Our own learning as an organisation from these events has supported our expanded program and we have also been able to include activities such as our masterclasses to deliver skills, training and educational activities providing unique learning environments for Victorians from industry, government and academia to work together.

Our events also provide unparalleled opportunities for representatives from these different sectors to build strong cross-sector connections and better understand the similarities that exist between them and the opportunities that can be harnessed.

Finally, by bringing international leaders to Australia including our 2015 **veski** resident with Dr Siobhán Jordan, Director Interface Scotland, we have been able to encourage Victorians to think differently.

While the feedback from these new programs has been extremely positive, it's also important to acknowledge the continued success of our flagship program, the **veski** innovation fellowships. A program which has delivered an impressive 18.4 to 1 return on investment to the State of Victoria.

In addition to the economic value, our **veski** innovation fellows have helped grow our research sector in the state. To date, they have helped increase jobs in research with more than 50 new positions created, more than 60 higher degree research students engaged and more than 30 undergraduate students mentored.

In addition to creating new opportunities for researchers, they have also had a clear economic impact. An assessment of five case studies of **veski** innovation fellows reveals a research impact valued at \$257.7m. Using the five case studies as an example, they have contributed to \$141.4 million in reduced cost of care nationally & globally.

As I mentioned, our fellowship program has expanded with the addition of our **veski** inspiring women's fellowship to assist outstanding female leaders in STEM juggling career and carer commitments to pursue their science and technology careers. Taking more of



veski chief executive officer Ms Julia L Page watches as the Governor of Victoria announces the inaugural inspiring women fellowships.

a national focus, we have launched the **veski** sustainable agricultural fellowships to support innovation in the regions.

In December, the inaugural **veski** inspiring women fellowships were presented by Victoria's first female Governor Hon Linda Dessau to Dr Natalie Hannan from The University of Melbourne, Dr Maria Liaskos from The Hudson Institute of Medical Research, Dr Emily Nicholson from Deakin University and Dr Catherine Satzke from the Murdoch Children's Research Institute.

Also in December, **veski** travelled to Shepparton for an official announcement of the inaugural **veski** sustainable agricultural fellowships by Hon. Jaala Pulford MLC, Minister for Agriculture. The fellowships were presented to Dr Pangzhen Zhang from The University of Melbourne who is developing a 'pepper' map to define the distinctiveness of Victorian wine and the Università di Bologna's Professor Luca Corelli Grappadelli who is paired with the Department of Economic Development, Jobs, Transport & Resources (DEDJTR) and industry collaborators in northern Victoria to determine the viability of pear varieties for Asian markets.

Rounding out the additions to the **veski** family, The Hon Philip Dalidakis MP, Minister for Small Business, Innovation and Trade presented the 24th **veski** innovation fellowship to Professor Jon Shah from Germany.

All of these **veski** fellows have brought new skills and knowledge into the **veski** family and in turn encouraged greater discussion within our **veski** connected community. With a growing community of **veski** connection members, **veski's** new horizons are bright and I am encouraged by the seemingly unlimited range of possibilities.

Julia L Page veski chief executive officer

veski operations

veski continues to adapt its operations to support the delivery of a growing fellowships program, inspiring women and inspiring students activities, and a range of complementary events and initiatives.

veski funding

veski continues to benefit from tax concession charity status on the grounds that it is a charitable institution.

veski has secured its core funding to continue delivering its innovation fellowship program. including funding for 2015/16, from the State Government of Victoria through the Department of Economic Development, Jobs, Transport and Resources.

veski gratefully acknowledges the support of its founding partner the State Government of Victoria.



Other support

veski continues to develop its relationship with the philanthropic and business sectors and is constantly pursuing opportunities to secure collaborative funding for our activities.

For the 2015/16 financial year, **veski** would like to thank all organisations, including host organisations, for their in-kind support and continued encouragement of **veski** and its programs.

veski foundation trust

In 2015/16, the **veski** foundation trust continued to operate as a deductible gift recipient (DGR) fund that can receive tax deductible gifts from philanthropic organisations and private donors.

A generous contribution from the John T Reid Charitable Trusts in the previous financial year supported the establishment of the **veski** sustainable agricultural fellowships.

veski staff

veski's chief executive officer receives support from a small, dedicated team of staff with specific skills in administration, finance and project management. The team supports the **veski** chief executive officer in delivering the **veski** innovation fellowship program along with a range of other activities and events delivered by **veski**.



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veski marketing and communications

veski has embraced digital communications as its primary avenue for community with its growing audience. Key channels include a quarterly newsletter, veski highlights, regular articles via its website veski. org.au, articles in traditional media and an active share of the social media conversation.

Social media @veskiorg

In 18 months, **veski** has built a community of more than 1,000 followers. **veski's** exclusive LinkedIn group for members of the **veski** connection has also grown and has been used to promote a range of **veski** events and broader innovation activities.

Media coverage of fellowship recipients

The key announcement events in 2015/16 attracted positive media coverage in The Age, Herald Sun, Channel 9 News and regional papers.

The announcement at Government House of the inspiring women fellows was covered by Channel 9 News on their evening news broadcast.

National radio station 2SM also covered the announcement of the inagurual sustanable agricultural fellows.

veski coverage is regularly collated on the **veski** website under the **veski** family in the media section.



veski new horizons video

As a follow up to the **veski** 10 year video, a **veski: new horizons** video was produced and has been used for a wide range of purposes from briefing new stakeholders, including Ministers and partners, to introducing **veski** at conferences and events.



watch the veski: new horizons video and other videos about veski programs and activities

veski website

veski's website has grown considerably since it was re-launched in 2012. It provides a growing range of multimedia content, a dynamic Twitter section, regular event listings, industry news articles, and a dedicated area to inspire women in Victoria.

veski has also continued to publish regular **veski** highlights, with the subscription list growing by more than 50 per cent in the past 12 months.



veski connection members, including **veski** board member Dr Jane Ryan, support **veski** as event speakers and emcees.

veski

veski connection member and Victorian Lead Scientist Dr Leonie Walsh attends a veski connection event during 2015/16

The **veski** family gather regularly in formal and informal settings including an annual **veski** family day.



Dr Keith McLean welcoming members of the **veski** connection to an announcement event.

Our inaugural **veski** innovation fellow Professor Andrew Holmes AM and **veski** connection member Madeleine McManus speak to students during the Graeme Clark Oration.

veski connection

The **veski**

connection is a unique community of world leading scientists, researchers and business leaders including our **veski** innovation fellows, **veski** board members and other leaders from a variety of fields. The group now includes more than 200 members of the national and international science and innovation communities including industry, academia and government leaders and our veski innovation fellows, our board members and veski fellows in an ambassadorial role.

During the year, as part of our ongoing commitment to the **veski** connection, **veski** hosted a number of events to encourage collaboration and networking among peers, like-minded colleagues, VIPs, and key policy makers, including:

- a table at the eighth Connecting Women in Biotechnology Luncheon, which included the BioMelbourne Network Women in Leadership awards profiling outstanding women in biotech
- a gathering for veski connection during the veski residency and veski: new horizons event
- veski in the community events including the RMIT Business Lecture series supported by veski and Ernst & Young
- regular veski conversations.

veski family

The **veski** family is an exclusive sub-set of the **veski** connection, providing informal networking opportunities with a number of **veski** innovation fellows requesting meetings with our board members to learn from their knowledge of business, government and media.

Activities also provide on opportunity for partners and children of the innovation fellows to engage with the **veski** family. Many of the partners of our innovation fellows are also key members of the science and innovation communities.

veski fellowships

veski delivers a number of Victoria's most prestigious fellowship programs including the veski innovation fellowships which bring worldleading scientists and researchers to Victoria. During 2015 / 2016, veski announced four veski innovation fellowships bringing the total number of innovation fellows, as at 30 June 2016, to 24.

Over the 12 year period in which **veski** has been awarding **veski** innovation fellowships, collectively, the innovation fellows have leveraged additional funds to the State of Victoria in excess of 18.4:1 to support their research efforts from federal and international funding bodies. That's a little under \$68.2 million in return for a modest \$4.15 million investment in Victorian research.

veski's call for applications for the innovation fellowships continued to attract large numbers of high quality applications from around the world.

The latest **veski** innovation fellow was welcomed by the Minister for Innovation The Hon Philip Dalidakis MP at an event attended by representatives of business, government and the science and innovation communities at the Investment Centre Victoria.



Other fellowships

veski also administered a number of fellowship and award programs on behalf of the Victorian Government. These included the Victoria Prize for Science & Innovation, the Victoria Fellowships, the Premier's Award for Health & Medical Research, and the Victorian Postdoctoral Research Fellowships.



read more about all the fellowships delivered and administered by veski

😹 MONASH University

2016 **veski** innovation fellow

Professor N. Jon Shah

Awarded a veski innovation fellowship worth \$150,000 over three years for "Quantative Metabolic Bio-medical Imaging: Transformational MR-PET Technologies for Brain Research" at Monash University.

Professor Jon Shah is transforming the way we 'look' at the human brain, and developing new ways to investigate the brains of people suffering from traumatic brain injuries, mental health disorders and obesity and diabetes.

In a global partnership with Monash University in Australia, Research Centre Jülich in Germany and industry partner Siemens Pacific, Professor Jon Shah is developing next generation brain imaging methodologies focused on quantifying brains scans; allowing researchers to compare images produced today with images produced tomorrow and see measureable changes in physical units such as milliseconds and absolute concentrations.

His research draws on a relatively new multimodal technology that simultaneously combines the strengths of Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI). The highly sensitive PET, which detects and spatially represents the body's specific molecular processes, is combined with the exquisite highresolution structural detail and image contrast provided by MRI.

By enabling simultaneous real time observation of physiological and biochemical processes in vivo, MR-PET benefits the community through enhanced knowledge of disease and tissue regenerative processes, enabling the development of new techniques and technologies for the diagnosis and treatment of neurological brain diseases as well as metabolic diseases including diabetes and obesity. Enabled by a **veski** innovation fellowship, Professor Shah's international standing in this area will accelerate Victoria's collaborative efforts to deliver transformational imaging technologies via a world-class biomedical imaging research community. Professor Shah's use of state- of-the-art non-invasive biomedical imaging technologies also enhances the evaluation of new biomaterials, medical devices, cell tissue implants and therapeutic delivery technologies.

With only a small number of countries having access to the MR-PET technology, including Germany, USA and Australia, Jon's priority is to bring the knowledge he has gained in Germany and put it to work on the new machine at Monash University.

He has also started collaborating with clinical colleagues and will take advantage of the proximity of patients to the facility; a challenge he faced in Germany. Jon will also use his methodology to look at a cohort of Victorian patients with traumatic brain injuries who were first studied approximately five years ago, and use MR-PET to gain a deeper understanding of what's happening in their brains.

Jon is the holder of 34 patents and is an author on over 250 peer-reviewed papers. In July 2003 he was elected as a Fellow of the Institute of Physics of Great Britain.



"We'd like to see things working on a trilateral basis – a chosen industrial partner with whom we can set up projects which cross international boundaries"



watch Jon talk about why he decided to move to Victoria and the benefits of being part of the veski family

2015/16 veski innovation fellows

In July 2015, three **veski** innovation fellows, Associate Professor Roger Pocock from Denmark, Professor Colby Zaph from Canada, and Professor Richard Sandberg from the UK were welcomed to Victoria by the Hon James Merlino, Deputy Premier, Deputy Leader of the Labor Party and Minister for Education.

Professor Colby Zaph

Awarded a veski innovation fellowship worth \$150,000 over three years for "Biological Methylation: a new frontier in the regulation of immunity and inflammation" at Monash University.

Chronic inflammatory diseases afflict millions of people and current treatments are less than ideal. With very few Victorian researchers are focused on mucosal immunology, Professor Colby Zaph is providing Victoria with a unique and cutting-edge approach in this important area.

The Zaph laboratory in the Department of Biochemistry and Molecular Biology at Monash University is focused on defining the cellular and molecular mechanisms that control immunity and inflammation at these mucosal sites. This understanding represents a potential target for identifying novel therapeutics for the treatment of these diseases. Colby and his team are focusing on both immune cells (T cells) as well as non-immune cells (epithelial cells) that respond to the inflammatory signals. They are defining the role of a class of enzymes that modify proteins to change their function by a process called methylation.

Colby has already begun publishing his research resulting in more than 10 publications in the past 12 months.

Associate Professor Roger Pocock

Awarded a veski innovation fellowship worth \$150,000 over three years for "Deciphering the function of a schizophrenic-associated microRNA" at Monash University.

Associate Professor Roger Pocock is interested in discovering how the human brain forms and how it functions. Using worms as a model, specifically the nematode Caenorhabditis elegans, he injects them with a jellyfish protein with fluorescent properties. This allows his team to observe the worm nervous system in living animals.

Associate Professor Pocock uses this model as a discovery tool to study the functions of genes in the brain. One such gene called mir-137 is associated with schizophrenia; however, the biological role of mir-137 in brain development and function is not understood.

Roger has already initiated collaboration with a group within The Florey Institute of Neuroscience and Mental Health working on mir-137 in mice, and will use this collaboration and Victorian industrial contacts to push his findings towards clinical translation.

With the support of **veski** and Monash University, Roger has also been able to bring six members of his team from Denmark to continue their research alongside him in Melbourne.

Roger was recently invited and sat on a NHMRC selection panel.

Roger was also invited to become a member of the selection panel for the prestigious state government awards, the Victoria Prize for Science and Innovation and the Victoria Fellowships.

Professor Richard Sandberg

Awarded a veski innovation fellowship worth \$150,000 over three years for "Impacting industry by enabling a stepchange in simulation fidelity for flow and noise problems" at the University of Melbourne.

Using a numerical code developed in the UK and US, Professor Richard Sandberg will harness the power of Australia's and the world's high-performance super computers to gain better understanding of turbulence and to develop new models for industry to reduce noise and predict turbulence.

Advances in fluid dynamics research, made possible through computer simulations, play a role in almost every aspect of Australian life. Professor Sandberg's research can lead to more efficient conventional and renewable power generation, more environmentally friendly and affordable plane travel, and improved heating and cooling systems.

The research will not only have a scientific and economic impact but will ultimately benefit Australian society by creating new knowledge and training for the next generation of engineers and scientists. This training is fundamental for future advances in engineering in Australia enabled by high-performance computing.

In November 2015, Richard was the focus of a feature in The Australian 'Supercomputers to propel Richard Sandberg's jet engine research'.

During 2015/16 Richard has published seven peer-reviewed journal articles, as well as eight peer-reviewed conference proceedings.



veski sustainable agricultural fellowships

The long-term sustainability of Australia's agricultural sector and regional communities rely on innovation and strong collaboration between industry, government, philanthropic groups and the community. Innovation and collaboration can transform our local economies, grow local industries and provide jobs for thousands of people struggling across the state.

review 2015/2016



veski chief executive officer with the Minister for Agriculture (centre), representatives of the funded projects and founding partner John T Reid Charitable Trusts

The first round of fellowships have been industry driven where **veski** sought expressions of interest from a range of industries and sought their input into the identification of a specific problem or issue and their assistance in the design of the fellowship to develop a solutions driven outcome, identifying key requirements of the fellowship candidates along with international best practice examples.

The Hon Jaala Pulford MP, Minister for Agriculture made the announcement on Wednesday, 2 December 2015 in Shepparton with farmers, researchers, government, community and industry representatives joining key people from the funded projects to celebrate **veski's** investment in regional communities through this national program supporting projects identified by the communities themselves. The inaugural **veski** sustainable agricultural fellowships, which address key challenges identified with input from industry, farmers, community groups, government and academics to determine the key challenges for regional Australia and what problems need to be tackled, will support national and international researchers including:

- Victorian Dr Pangzhen Zhang from The University of Melbourne who is developing a 'pepper' map to define the distinctiveness of Victorian wine;
- Università di Bologna's Professor Luca Corelli Grappadelli who will be paired with the Department of Economic Development, Jobs, Transport & Resources (DEDJTR) and industry collaborators to determine the viability of pear varieties for Asian markets.

veski sustainable agricultural fellows

Peppery flavour, climate and an app are key to selling Victorian Shiraz

Dr Pangzhen Zhang from the University of Melbourne will work closely with the Victorian viticulture industry to develop a 'pepper' map with information on how to maximise the 'peppery' flavour, known as Rotundone, found in high quality Victorian Shiraz to increase sustainability and profits for an industry experiencing difficult economic times with increased labour and raw materials costs.

The **veski** sustainable agricultural fellowship will support the development of a method to define, quantify and differentiate regional Victorian agricultural products like Shiraz, and develop an app to provide industry with access to relevant data and information including a Victorian-wide rotundone map to help Victorian grape growers estimate their rotundone concentration at each vintage based on climate data in their region.

The project will also provide information for future production by combining the climate-rotundone model and Australian Bureau of Meteorology climate projection to estimate rotundone production over the coming 50 years. Based on this modelling, they will design a specific vineyard management protocol to maximise rotundone production under different climate scenarios.

Pangzhen is a promising scientist in the field of horticultural and viticulture studies with expertise in climate modelling. He has established an excellent working relationship with the Australian Wine Research Institute, CSIRO, Australian Grape and Wine Authority, Wine Victoria, Rathbone Wine Group and Mount Langi Ghiran Winery.

He also has practical experience in the wine industry, and has worked for the Yering Station Winery as a vintage wine chemist.



Dr Pangzhen Zhang from the University of Melbourne will work closely with the Victorian viticulture industry



Professor Luca Corelli Grappadelli from University of Bologna will work with farmers, industry and government

Researchers and farmers to determine perfect pear for Asian markets

Pears to match the taste and visual preferences of local and international consumers can revitalise the declining Australian industry. The decline, also linked to high production costs, has resulted in over supply and price reductions and poses a significant threat to the survival of many growers, particularly in the Goulburn Valley with impacts for the regional economy, community health and wellbeing.

Using emerging sensor technologies and knowledge from the University of Bologna, Professor Luca Corelli Grappadelli will work with industry to determine if the Deliza and PIQA pear varietals are suited to Asian consumer expectations.

Research will include pre and post harvest studies on both of the pears with a focus on determining best practice for handling, storage and transportation of the pears.

Professor Corelli has developed a number of new and innovative technologies, algorithms and methodologies that can be used to manage and predict fruit size, yield and quality; some not tested outside University of Bologna in Italy. He also brings his experience from playing a major role in clarifying the patterns of carbon movement within shoots, spurs and fruit as a function of the light environment in apple and peach crops.

The research and development will use the six hectare pear field laboratory at DEDJTR in Tatura that has long-term experiments in place to test the response of new varieties to a range of practices.

An advisory team will provide advice, direction and feedback for the project research activities with industry leaders, researchers and government working alongside the **veski** sustainable agricultural fellow.

veski inspiring women fellowships



inaugural inspiring women fellows with Lead Scientist, **veski** chair, Governor of Victoria and Minister for Small Business, Innovation and Trade

The inaugural inspiring women fellowships, funded by the Victorian Government support outstanding female leaders planning for, experiencing, or returning from a career break. The flexible funding of up to \$150,000 each over three years, as well as financial support from their institutions and a commitment from management to support their leadership potential, allows these women to remain competitive by tailoring support mechanisms to suit their situations and make the juggling act possible.

The four inaugural inspiring women fellows will choose exactly how to allocate their funds to maximise career opportunities. Thus ensuring greater connection with their research while taking career-breaks and returning to work giving them the ability to participate in important international conferences with the support of carers for young children, and the ability to employ a research assistant who can be their 'hands' in the laboratory while they are at home raising their young families.

Each recipient is supported by a host institution who has also made a significant commitment to supporting these inspiring women.

Dr Natalie Hannan

The University of Melbourne

The **veski** inspiring women fellowship is helping Dr Hannan juggle a research career with family commitments.

"This unique **veski** fellowship provides much needed support to women, reducing the negative impact of taking maternity leave and returning to work part-time, and enabling women to remain competitive at a crucial time," Natalie said.

"I have been able to focus on my research and fund additional staff, improving my research output, and accept invitations to present my work at premier international meetings and universities with the assistance of a carer for my young daughter."

Natalie's research focuses on preeclampsia, a serious complication of pregnancy affecting around 2-7% of all pregnancies and causing significant illness to both mothers and their babies. With no effective treatments available, a therapeutic approach is urgently needed.

Using a unique approach to specifically target the delivery of therapeutics directly to the placenta, allows promising drugs to be safely delivered at lower concentrations to the placenta, reducing side effects to both the mother and her baby.

Natalie has two children. In addition to leading a talented research team, she has a track record of success as an ambassador for women in STEM and recognised community profile demonstrating her strong leadership skills.

Natalie directed the funding towards the cost of travel for a carer so she is able to attend overseas conferences with her very young children. The funding also provides Natalie with a research assistant to help maintain her trajectory as an emerging leader.

veski inspiring women fellows

Dr Maria Liaskos

Hudson Institute of Medical Research

Dr Liaskos, who previously secured ARC funding and received an NHMRC grant while on maternity leave, has recently returned to the lab part-time.

Maria is examining the mechanisms of immune suppression during Helicobacter infection, a bacterium in the stomach affecting over three billion people worldwide, and the causative agent of gastric cancer.

By understanding the role of an immune-suppressing molecule in H. pylori infections and gastric cancer, Maria hopes to develop a novel bioassay to detect the onset of gastric cancer, and new treatments for antibiotic resistant H. pylori infections and gastric cancers.

"The **veski** inspiring women fellowship is enabling female researchers to continue progressing their careers while raising young children," Maria said.

"It is a visionary fellowship scheme and I am honoured to be a part of it."

The **veski** inspiring women fellowship is giving Maria more 'hands' in the lab by funding a research assistant and PhD student to progress the research while she works part-time.

This is vital to Maria as her research team has been reduced due to career interruptions and having to decline the supervision of PhD students. With the **veski** support, Mary can now foster the next generation of researchers.

Maria has two children, and by acting as a role model to younger women interested in a career in STEM, Maria is working to affect cultural change, proving that women can have leadership positions, successful STEM careers, flexible work hours, a strong support network and still be great mothers.

Dr Emily Nicholson Deakin University

The **veski** inspiring women fellowship is allowing Dr Nicholson to lead and host workshops in Melbourne, where she is bringing key players to Australia to develop a strategy to assess the world's ecosystems by 2015, and identifying data, resourcing and research needs.

She is also using some funds to support childcare for her youngest child while undertaking these activities.

In addition, the **veski** inspiring women fellowship is enabling Emily to recruit a postdoctoral researcher in order to maintain her research workload while returning to work part-time.

This will greatly improve her own research output and also support her research group.

Emily's research focusses on solving critical conservation problems: how to balance development and nature conservation, and measure change in biodiversity.

Since 2007, Emily has worked as part of an international research team to develop a new framework for assessing risks to ecosystems, called the Red List of Ecosystems, which provides critical information for setting conservation priorities.

The approach was adopted as the global standard by the International Union for the Conservation of Nature (IUCN), the world's largest environmental organisation, and also by governments worldwide and in Australia.

Emily is a mother to three children, and with the support of the **veski** inspiring women fellowship and her institution, she will continue developing as a Victorian leader.

Dr Catherine Satzke

Murdoch Children's Research Institute

In 2015, an inaugural **veski** inspiring women fellowship was awarded to Dr Catherine Satzke from the Murdoch Childrens Research Institute, who is remaining connected with her work in pneumococcal diseases.

The fellowship is enabling Dr Satzke's research to continue while she is away from the lab on maternity leave.

With the **veski** inspiring women fellowship, Catherine is funding a junior postdoctoral scientist to be the 'hands at the bench' to carry out key research in her absence, enabling her to maintain her career and research momentum.

Catherine has also employed a senior postdoctoral scientist who is supervising and mentoring her staff and students.

Catherine has also attended a major international conference in Scotland with the assistance of a carer for her baby.

Catherine's research is focused on the prevention of pneumococcal diseases, a leading killer of children under five years of age, with most deaths occurring in developing countries.

Current childhood pneumococcal vaccines effectively reduce both bacterial colonisation and disease incidence, but only protect against a subset of pneumococcal strains of bacteria, and are costly to produce.

Catherine's team assesses vaccine impact in the Asia Pacific region by identifying circulating pneumoccal strains in these countries, enabling policy makers to make informed decisions about their ongoing use.

Catherine has two children, and is continuing to build the scientific research team she has established and maintaining her international recognition and impact.

veski inspiring women

veski inspiring women is an action-focused and broad-ranging program to support, inspire and inform Victorian women through partnerships with government, industry, community and academia.

The program includes:

- supporting veski's strategic goal to achieve 50 per cent participation by women in all veski programs and activities (incl. fellowships) by 2016
- regular professional development and networking opportunities
- a women in science code and examples of best practice policies

As part of the program, **veski** is also delivering a suite of initiatives supported by the Office of the Lead Scientist:

- inspiring women fellowships to support our female future leaders juggling career and family or carer commitments
- inspiring women industry internships for female honours and masters students in STEM disciplines
- dedicated inspiring women web pages on the veski website linking to resources, information and opportunities to support career progression

veski.org.au/inspiring-women

In 2015, **veski** delivered a program of professional development & networking activities addressing the following topics:

- overcoming gender bias
- planning for and managing career interruptions
- transitioning from academia to industry
- Gender Equality: It's not a female issue, it's an everybody issue
- mentoring
- self promotion



read about the veski inspiring women PD & networking sessions and watch videos from past events Madeleine McManus facilitates a professional development and networking event for the **veski** inspiring womens program



Participants talk about promoting yourself in a professional development and networking event for the **veski** inspiring womens program

Dr Catherine Satzke receives her inspiring women fellowship from the Governor of Victoria

veski inspiring women fellow Dr Natalie Hannan with her daughter at Government House

Full houses at professional development and networking event for the **veski** inspiring womens program



Industry leaders give up their time for professional development and networking event for the **veski** inspiring womens program

veski inspiring students

veski's inspiring students program has exapanded to foster a culture of innovation across Victoria from school students to higher education students and beyond.

inspiring students (& teachers)

In partnership with several regional Victorian schools, including Neerim District, Mooroopna and Kyneton secondary colleges, **veski** has delivered:

- unique experiences for students including real world interaction with scientists
- professional development & resources for teachers
- career advice for students, parents and teachers promoting traditional and alternative career pathways

The activities have been delivered alongside the opening of refurbished science labs at each of the schools.

2015 Graeme Clark Oration, schools activity and oration dinner

As part of the **veski** inspiring students (& teachers) program more than 100 students and teachers from regional Victoria travelled to Melbourne for a day of inspiring activities including the Graeme Clark Oration. The 2015 Graeme Clark Oration, delivered by Sir Paul Nurse the President of the Royal Society in the UK, marked **veski's** fifth consecutive year of hosting students and teachers at the annual event.

Students visit CSIRO and Monash for real world science

More than 60 year 9 and 10 students from across regional Victoria were given the opportunity to experience real world science in October 2015 as they visited labs at CSIRO and Monash University. At the Monash Immersive Visualisation Platform students were blown away by the CAVE2, the next generation hybrid 2D and 3D virtual reality, where they saw an MRI scan of the brain and took a tour around Mars.

veski kickstart initiative

veski kickstart is a program of activities designed to inspire students to engage and network with experienced leaders and discover career opportunities that go beyond the lab.

Every **veski** kickstart activity will be tailored to suit the specific needs of the audience with industry leaders sharing their experiences, panels of specialists providing unique insights, and facilitated networking sessions.

Research to Industry – Post Docs and PhDs on the move

veski's inaugural kickstart event brought together 55 Post-Doctoral and PhD students from six universities to meet with industry leaders and learn about pathways beyond academia.

The event began with Dr Leonie Walsh, Victoria's Lead Scientist, providing an insight into her career working with industry. She was followed by David Brown, from Siemens Healthcare, who spoke of industry's need for skills in new areas. Dr Jane Ryan, who has worked internationally in Big Pharma and is now leading a start-up called Sementis added further insights while Mithran Doraisamy from Telstra shared his tips for networking.

A lively panel discussion ensued with Dr Benjamin Schmitt from Siemens, Dr Uma Adash from Ernst & Young, Bill Hill from Hydrix, and Siân Slade from Bristol Myers Squibb. This was followed by sessions of facilitated networking, where the students could develop and practice pitching, ask questions and meet industry specialists and fellow students from other universities.

Students visit the CAVE at Monash University as part of the **veski** inspiring students (& teachers) program



PhD and postdoctoral students participate in facilitated networking during t veski kickstart event





A panel of industry leaders share their experiences during the **veski** kickstart event



kickstart

veski programs



veski conversations

veski conversations stimulate discussion and debate by bringing together the brightest minds from overseas, around the country and locally for the benefit of the State of Victoria.

These activities also provide an opportunity for **veski** innovation fellows to share their work and vision with the local and international community, and provide regular opportunities to engage the **veski** connection.

In 2015/16 **veski** delivered a number of **veski** conversations, with key national and international leaders and commentators.

#1 September 2015

Collaboration with IBM to facilitate change in the Victoria's health and medical research system

On Thursday, 10 September 2015, Dr Juerg von Kaenel, Associate Director IBM Research – Australia, led the **veski** conversation on Big Data - what the Victorian health and medical research system could look like.

#2 October 2015

A sustainable interface between industry and academia

On Wednesday, 25 October, **veski's** final conversation for 2015 brought together a group of senior leaders in government policy, industry, academia, venture capital and research to discuss how and why Australian business is not accessing the full benefits of academic knowledge and facilities. The event was part of the 2015 **veski** residency with Dr Siobhán Jordan.

#3 April 2016

Development of a new industry and academia collaboration

veski hosted a roundtable with Victorian Deputy Vice Chancellors for research focused on the development of a new industry and academia collaboration.

veski in the community

veski co-sponsored RMIT Business Innovation Lectures

veski continued to support the longrunning RMIT Business Innovation Lectures. During the year, veski hosted, in conjunction with RMIT University and Ernst & Young, a number of lectures including 2015 veski resident Dr Siobhán Jordan.

veski masterclasses

As part of a **veski** masterclass, research teams from Austin Health, Biomedical Research Victoria, Peter MacCallum Cancer Centre and Monash University converged at the Queen Victoria Women's Centre on Tuesday, 27 October 2015 to explore the relationships between the elements of a 'system' in their team and organisation.

Dr Seanna Davidson and Dr Philip Wallis from the Monash Sustainability Institute designed the **veski** masterclass in systems thinking for research teams wanting to explore and better understand the systemic issues that influence and direct the context in which they work, and use the approach to strategically plan and implement strategies to improve their team's greatest challenges.

The masterclass was offered to **veski** connection members as part of **veski's** program to deliver opportunities for skills, training and education.

2015 **veski** residency



2015 veski residency with Dr Siobhán Jordan, Director Interface Scotland

The 2015 **veski** residency with Dr Siobhán Jordan, Director Interface Scotland, was not only timely as Australians debated the innovation agenda, but also it catalysed industry leaders, sectors and Government to really look at ways that business can access academia for the benefit of economic development.

The 2015 **veski** residency was made possible with the support of Monash University.

Dr Jordan and her team at Interface have been unlocking the expertise in Universities and Research Institutes for industry for the past decade with clear economic and social dividends for Scotland.

Throughout the residency week Dr Jordan demonstrated how the Interface model has broken down barriers to establish credibility and serve as the front door to all Universities and Research Institutes for SMEs. She said Interface's proactive approach had streamlined the matchmaking process and addressed issues including diverse sector engagement, IP agreements, and developing specs to communicate business need clearly to academia.

- Tuesday, 24 November 2015 -RMIT Business Lecture with Dr Jordan
- Wednesday, 25 November 2015

 veski discussion for technology transfer and knowledge exchange professionals
- Wednesday, 25 November 2015 veski conversation with Dr Jordan
- Monday, 30 November 2015 veski: new horizons and lessons from 2015 veski resident

Dr Jordan introduced her model to the business community through the RMIT Business Breakfast and a series of private meetings, a facilitated conversation and events orchestrated by **veski**. A series of strategic roundtable meetings for sectors including Food and Drink, Future Industries, Start up initiatives and Creative Industries, demonstrated the ways Interface has fostered commensurate sectors in Scotland, to produce new products, develop international markets, raise capital, increase productivity and boost employment.

A lunch meeting with a strong cross section of Victorian innovation and commercialisation specialists showed the clear economic dividends of business working with academia in tech transfer and explored topics including incentives for academics, matching SME's with research teams, scale for larger organisations, communicating benefits and funding models.

Dr Jordan met with the Deputy Vice Chancellors for Research from Victorian and Tasmanian Universities. She also visited the Monash precinct and CSIRO growth centres to share her model and explore the challenges Universities face in connecting research with business.

The highly successful residency week concluded with Dr Jordan's key note address at the **veski: new horizons** event in Melbourne - where she outlined some of the issues Australia will face if an Interface system were to be implemented and, how Scotland has made progress through its willingness to collaborate and its culture of can do will do, to make it happen.

veski looks forward to continuing its residency program in 2016 to bring highly relevant and valuable thought leaders and specialists to stimulate conversation, policy, and action for economic growth.

statement of financial position **veski as at 30 June 2016** ABN 93 104 711 275

	Consol 2016 \$	lidated entity 2015 \$	Paren 2016 \$	t entity 2015 \$
Current assets Cash and cash equivalents Receivables Other assets Total current assets	2,556,519 670,333 3,141 3,229,993	3,561,941 232,680 16,469 3,811,090	2,145,876 670,333 17,596 2,833,805	3,056,772 232,680 16,469 3,305,921
Non current assets Investment in related entity Property, plant and equipment Total non current assets Total assets	- 22,817 22,817 3,252,810	22,428 22,428 3,833,518	2 22,817 22,819 2,856,624	2 22,428 22,430 3,328,351
Current liabilities Payables Provisions Other liabilities Total current liabilities	83,673 93,403 2,605,213 2,782,289	43,990 90,938 3,134,143 3,269,071	93,192 93,403 2,605,213 2,791,808	43,990 90,938 3,134,143 3,269,071
Non current liabilities Provisions Total non current liabilities Total liabilities	2,564 2,564 2,784,853	672 672 3,269,743	2,564 2,564 2,794,372	672 672 3,269,743
Net assets	467,957	563,775	62,252	58,608
Equity Accumulated surplus Total equity	467,957 467,957	563,775 563,775	62,252 62,252	58,608 58,608

Where necessary, comparative information has been reclassified and repositioned for consistency with current year disclosures.



inspiring innovation since 2004

vesk



Inspiring Innovation

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