



**MATTHEW  
FLINDERS**  
Anglican College



# Flinders

I-WiSH: Inspiring Women in Science & Health



EVENT REPORT | AUGUST 2023

# Matthew Flinders Anglican College

## 2023 Inspiring Women in Science & Health



**It was declared “The best Flinders I-WiSH yet!” to celebrate National Science Week (NSW).**

On Tuesday, 15 August, Matthew Flinders Anglican College on the Sunshine Coast wrapped up its third annual Inspiring Women in Science and Health (I-WiSH) conference. The one-day event aimed to inspire, mentor and challenge 60 young women with a passion for Health-related Science, Technology, Engineering and Mathematics (HeR-STEM).

The conference featured seven leading women researchers and their doctoral students who visited from the University of Queensland (UQ) and University of the Sunshine Coast (UniSC). The researchers acted as role models - first sharing their cutting-edge, world-class doctoral projects and then mentoring the participating students through a fast-paced ‘change-maker’ challenge.

The conference involved 32 young women in Year 10 and 24 in Years 11 and 12 at Flinders, along with a group of Year 10 Science students visiting from schools in the region.

Leading the event was Flinders Discovery Institute Director, Dr Louise McCuaig and Secondary Science Teacher and Project Leader, Mrs Emmie Cossell. Dr McCuaig said the I-WiSH event launched in 2021 and had become an annual commitment to help address the under-representation of young women in the sciences.

*“At Flinders, we want young women with a passion for STEM to have opportunities to meet scientists in person and be inspired by their intelligence, grit and creativity as they strive to contribute positively to the world through their doctoral projects and discoveries. Stories of their studies and careers help to demystify and reveal the pathways available in science.”*



Recent ‘State of STEM Gender Equity’ data by the Australian Department of Industry, Science and Resources reveals that:

- Girls’ confidence in STEM subjects is lower than boys and falls as they get older; and
- Women account for only 27% of the workforce across all STEM industries, a 1% drop from 2020.

To kickstart the conference, each of the seven researchers gave a fascinating elevator pitch on their project, ranging from the mapping of dark energy, nutrition and paediatric wellbeing, the impact of toxins on germ cells, restoration of coastal ecosystems, countering blue screen impact on macular degeneration, and fighting dementia through exercise.

**Scan the QR code to view the I-WiSH 2023 highlights video**





## Event Summary

# 2023 Inspiring Women in Science & Health



## The I-WiSH Challenge: Devise and Pitch a Change-Maker Advocacy Strategy to Help Make the World a Better Place

It was then time for students to form teams, each guided by two of the guest researchers as mentors. The conference was emceed by a group of Flinders Year 12 students who had participated in the 2021 and 2022 I-WiSH events. The seven teams had just three hours to identify and empathise with one of the doctoral projects presented to them earlier in the day, and devise an advocacy strategy promoting their chosen doctoral project to Australian youth. The teams each pitched their change-maker strategy to a panel of judges as a captivating three-minute thesis to compete for a highly sought-after mock 'Queensland Women in Science Change-Maker Grant' worth \$150,000!

Dr Louise McCuaig said the students' collaborative efforts and final pitches were "impressive".



*"Our students certainly impressed our guest researchers, who were energised by the buzz in the room!" Dr McCuaig said. The students were courageous, curious, creative and collaborative! The quality of the work produced was truly engaging and I am delighted to report that all seven teams truly excelled."*

## I-WiSH Change-Maker Teams and Final Pitches

Team #3 were the winning change-makers, successfully pitching their app, Fertility Friendly Future (FFF), to the judges. The FFF app aims to solve the problem of greater awareness about endocrine-disrupting chemicals in everyday products, such as shampoo, toothpaste and make-up, and the impact on women's fertility, with statistics revealing one in six women have fertility struggles.

The other six teams also developed exciting strategies to help promote the doctoral projects which aim to improve people's lives and communities, including:

- An online program and app in schools to educate and empower students to develop healthy habits for an active life, combatting the negative effects of sedentary behaviour during the school day.
- A seven-day bootcamp at Mt Kent Observatory in Toowoomba to inspire girls to pursue careers in coding and cosmology, where girls code by day and explore cosmology by night
- A nationwide school screening program for early detection of scoliosis
- A suite of virtual reality, AI and online programs to support the early diagnosis of scoliosis and its treatment along with gamified preventative exercises to combat its negative health impacts
- An app to educate school students on how to identify and minimise the risks of endocrine-disrupting chemicals in their everyday lives to protect their health.

## Event Summary

# 2023 Inspiring Women in Science & Health



Matthew Flinders Anglican College hosted its third annual Inspiring Women in Science and Health (I-WiSH) conference for its Senior School students on Tuesday, 15 August to celebrate National Science Week.

Through the I-WiSH conference, Flinders aims to address the under-representation of young women in the sciences and demystify and reveal the future pathways on offer.

The 2023 conference is an opportunity for Flinders students to connect with world-class scientists and researchers in a mentoring and coaching scenario.

The conference brings together 48 girls in Year 10 at Flinders (change agents), 24 girls in Years 11 and 12 at Flinders (hosts & mentors), 8 leading women researchers (coaches) and 8 women doctoral students.

Flinders students will have the opportunity to learn about real-world research projects and to be mentored in how to devise and pitch a science-based initiative to a panel of judges.

The Flinders I-WiSH is led by Dr Louise McCuaig and Secondary Science Teacher and Project Leader, Mrs Emmie Cossell.

Last year's I-WiSH event was a resounding success, with Flinders' Year 10 student Heather Brown giving I-WiSH 2022 a glowing review.

"It was so amazing!" Heather said. "I highly recommend it for younger girls as well. I went in with an open mind and I heard so many amazing things. It makes me very excited to explore science."

Returning to feature on the guest speaking panel again this year is dietitian and doctoral student Naomi Fitzpatrick, an Old Flinderian (Class of 2013).

Naomi said of last year's I-WiSH conference, "It was refreshing and wonderful to be surrounded by such unfiltered excitement, passion and creativity about science. It brings passion back into my work as well."





# Reflections & Participants

## 2023 Inspiring Women in Science & Health



*"Thank you for letting me be a small part of your big I-WiSH day at Flinders. Interacting with your students has yet again re-invigorated my passion to be a scientist and reminded me why I love my job. It is about more than the work...it's about inspiring those young girls to be empowered through science and research and pursuing careers that they love. Witnessing their motivation, diligence, curiosity and passion today was just such a treat."*

Dr Taylor Dick  
I-WiSH Presenter and Mentor  
UQ School of Biomedical Sciences

*"I just wanted to say on behalf of all the Year 12s involved, we felt so privileged to be at 2023 I-WiSH. Not only did we witness the incredibly bright young minds of the future in their element, but we also saw how the event has adapted and grown since our first year. It was such an honour to be the coach of the winning team! I was proud and impressed!"*

Paige L  
Flinders Year 12 Student  
Student Mentor and Event MC



## Researchers and Doctoral Students

- Ashlee Caddell, Astrophysics PhD Student, UQ
- Cassady Swinbourne, PhD student (Water and Environmental Biotechnology), UQ
- Dr Samantha Stephens, Research Program Manager at the Health & Wellbeing Centre for Research Innovation, UQ
- Isabel King, BSc, MSc, PhD Candidate, University of the Sunshine Coast
- Phoebe Duncombe, PhD Candidate, School of Biomedical Science, UQ
- Fiona Cheung, BSc (Hons), MPhil, PhD, Bowles Lab, School of Biomedical Sciences, Faculty of Medicine, UQ
- Professor Rossana Ruggeri, Cosmologist and Research Fellow, UQ
- Associate Professor Josephine Bowls, Germ Cell Biology Researcher, UQ
- Dr Taylor Dick, Group Leader, Neuromuscular Biomechanics Lab and Deputy Director Higher Degree Research Training (SBMS), School of Biomedical Sciences, Faculty of Medicine, UQ
- Professor Lisa Nissen, Program Director - Health Workforce Optimisation, Centre for Business and Economics of Health, Faculty of Business, UQ
- Dr Sjaan Gomersall, Associate Director and Senior Research Fellow at the Health & Wellbeing Centre for Research Innovation at School of Human Movement & Nutrition Sciences and Senior Lecturer in Physiotherapy at the School of Health & Rehabilitation Sciences at UQ
- Dr Gloria Bravo, Advance Queensland Industry Research Fellow at School of Chemical Engineering, UQ



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