

Absolutely Positively Science

The eighth Association for Women in the Sciences (AWIS) conference was held in Wellington in July. Around 150 attendees gathered over the two-day event to share experiences and inspiration. Some of their stories are included in this publication, and we would particularly like to thank Nicola Gaston for her tireless efforts in bringing the papers in this issue to fruition.

The barriers to women's full participation in science, technology, engineering and maths (STEM) fall into three groups. First, structural issues such as the long training period and the insecurity of early career posts in STEM can conflict with women's aspirations. Secondly, pragmatic issues such as taking time out to care for children or other family members, and managing dual careers, are also important. Finally, cultural issues such as unconscious bias and family expectations can also act as a significant barrier to the full participation of women and other groups. These factors are not independent: they interweave and feed back on each other. Effective action to identify and remove these barriers requires a systemic approach such as those championed by the National Science Foundation ADVANCE Awards in the USA or the Athena SWAN Charter in the UK*.

AWIS' key driver is to create an environment where women and girls with an interest in science can gain confidence and develop their scientific abilities. Networking is a key part of this, and the triennial conference is a unique event specifically designed for this purpose. It brings together women from across the science system – including secondary and tertiary students, researchers from universities, Crown research institutes and private enterprise, and policy-makers – to share ideas and learn from each other.

AWIS, as an organisation, is constantly evolving to meet the requirements of the New Zealand population. There is still imbalance in the science system, not just an inequality in pay but also in the number of women, particularly in senior positions. It is imperative that all aspects of the science system have balanced representation, encouraging a mix of ideas, backgrounds and skills that can best address the needs of our nation and the world. It is by building connections, through events such as the AWIS conference, that we can provide encouragement and mentorship for women, as they enter and move through the science workforce, to support them on their journey and ensure they reach their full potential.

At this year's conference, we saw Judith O'Brien from the University of Auckland officially receive the first Dame Miriam Dell Award for Excellence in Science Mentorship. This Award will be offered again in 2015, and is just one way that we can acknowledge those that go the extra mile to support women in science.

AWIS has also introduced corporate membership, to broaden the audience who can access information and events offered by the Association. We congratulate and thank our first corporate members – the Faculty of Science at the University of Auckland, Plant & Food Research, Unitec, MetService, and Landcare Research – for having the foresight to support their female staff in this manner. We hope many more organisations will join us over the coming years.

AWIS has come a long way since its inception in 1985, but still has a part to play in ensuring New Zealand science thrives. The articles in this special issue exemplify this, and discuss a wide range of issues that are relevant to women. Judith O'Brien focuses on the critical role of mentoring in developing a science career, particularly if your career path does not fit the norm. Elissa Cameron, Angela White and Meeghan Gray show how an apparently objective measure of performance can be biased against women. Gina Grimshaw describes how research on the brain can be misrepresented to bolster unconscious beliefs, while Nicola Gaston takes an overview of some of the implicit barriers for women. Cather Simpson describes how the Department of Chemistry at Case Western Reserve University was transformed through a National Science Foundation ADVANCE project that addressed both cultural issues such as implicit bias and pragmatic issues such as paid parental leave and partner hiring policies.

We in AWIS look forward to the challenges of the future and will continue to showcase the important role of women in science in New Zealand.

Emma Timewell

AWIS National Convenor 2014

Priscilla Wehi

AWIS Conference Chair 2014

Esther Haines

AWIS National Convenor 2012–14

* Information about the NSF's ADVANCE programme can be found at the website: <http://www.nsf.gov/crssprgm/advance/> and other links from there, while information about the Equality Challenge Unit's Athena SWAN programme is at <http://www.ecu.ac.uk/equality-charter-marks/athena-swan/about-athena-swan/>