**Pathways to inclusivity and diversity: building communities for women in science by Jennifer Leigh and the Board of WISC**

A person smiling and holding her chin

Description automatically generated with low confidenceTalking about the gender imbalance in STEM is not new. Patricia Fara [wrote a book](https://global.oup.com/academic/product/a-lab-of-ones-own-9780198794981?cc=gb&lang=en&) on the history of women’s participation in science and explained clearly that women have always been interested in science – the fact is they have not always been given the opportunities to be scientists.

These days we can look at the lack of diversity in science and see that as well as barriers for women and other marginalised genders, there are barriers for anyone who does not fit the mythical stereotype of what a scientist might be. This might be because they are Black, or because they are disabled, or from a minority ethnic group, because of their sexuality, religion, or because they are the first in their family to enter higher education. [Kimberlé Crenshaw](https://www.law.columbia.edu/faculty/kimberle-w-crenshaw) described the way that these barriers accumulate and multiply as intersectional.

There has been a plethora of programmes designed to increase numbers of women in science, from the [ADVANCE programme](https://www.nsf.gov/crssprgm/advance/index.jsp) in the USA to the [Athena Swan](https://www.advance-he.ac.uk/equality-charters/athena-swan-charter) Charter used in the UK and globally. But there is still underrepresentation of women. Leading scientists such as Professor Rita Colwell, and advocates for women in science like Professor Sue Rosser, would say that in fact progress towards gender equity has stagnated. So, what can we do?

The approach taken by the International Women in Supramolecular Chemistry (WISC) network was to do things differently in order to effect immediate change. WISC was launched in November 2019 by Dr Jennifer Hiscock and colleagues after they realised the invaluable support they gained from an informal peer-support network. Chemistry has particular issues around the [retention and progression of women.](https://www.rsc.org/globalassets/02-about-us/our-strategy/inclusion-diversity/womens-progression/media-pack/v18_vo_inclusion-and-diversity-_womans-progression_report-web-.pdf) Whilst outreach has been successful, with women making up around 50% of all undergraduates choosing to study chemistry, less than 9% are full professors. This is a similar proportion to Physics, where fewer than 25% of A level students are girls. Rather than do yet more research that quantifies the numbers that make up the problem, WISC decided to use a novel area-specific approach that embedded qualitative and creative research methods more commonly associated with social sciences and arts. Rather than working *on* scientists, WISC chose to work *with* them, to gain understanding of the lived experiences of women who chose to stay in science.

The barriers to retention and progression that face women in chemistry are not new. Senior women and those who have left science have spoken up about dealing with sexual harassment, misogyny, and microaggressions. About balancing the chance to have a family with a career that places pressure on individuals in their late 20s to late 30s to travel, work excessively long hours, and be hyper-productive. They have spoken about the ‘old boys network’ in science where men use their positions of power and influence to help others, and the threat of losing their job or having to leave the field if they were to complain. In this last, science is probably [no different from other parts of academia](https://www.saranahmed.com/books-1).

What WISC has done is to create a means by which women in the field *now* have been supported to share their stories with each other, to build a sense of community, kinship and mutual support through using creative and reflective means such as collaborative autoethnography. Then, together with data from qualitative surveys with a wider body of members, and ongoing reflective work with international research groups, they used *narrative fiction* to create a series of vignettes drawing from the research data. These vignettes allowed WISC to share the lived experiences and embodied responses of women in chemistry with a wide audience, whilst protecting all the participants from the dangers of being seen to complain or whistleblow. They collected these vignettes together in [a forthcoming book](https://policy.bristoluniversitypress.co.uk/women-in-supramolecular-chemistry) from Policy Press. Dave Leigh FRS, Professor of Chemistry at the University of Manchester, wrote in the foreword to the book:

“Over my career I have seen many things change for the better in academia: Recruitment and promotion committees take genuine steps to avoid conscious and unconscious bias; schemes have been introduced that target women and other disadvantaged groups for independent positions; the increase in the number of women in chemistry departments has drastically changed the ‘macho’ culture that was prevalent 25 years ago. But the text and vignettes in this book, the latter composed from real experiences of women in supramolecular chemistry, paint a vivid, troubling picture that shows just why further significant change is still needed. The playing field is still not level. Whether that’s the fault of society, academia or supramolecular chemistry itself, I don’t know. But I suspect it’s all three. In reading this the most uncomfortable part of all was the persistent wondering if and how my own behaviour contributes to the inequality and experiences I was reading about. What do I do, or not do, that makes academia less fair on my women colleagues? And my questioning of that is, perhaps, the best reason of all for this book.”

WISC have created a means by which their members and participants can share their own experiences, and then utilise these safely to raise awareness of the challenges and barriers they face as they choose to stay in science. Their aim is not only to connect with women and other marginalised groups, but to use fiction to reach out to men as well, and from there to make change.

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