ADVANCING GENDER EQUALITY IN SCIENCE HAS BECOME AN IMPORTANT GOAL FOR MANY ACADEMIC AND RESEARCH INSTITUTIONS IN THE UK AND WORLDWIDE. INTERNATIONAL INNOVATION SPEAKS EXCLUSIVELY TO SEVERAL LEADERS IN THE FIELD, ALL STRIVING TO COMBAT UNDERREPRESENTATION AND FURTHER THE CAREERS OF WOMEN SCIENTISTS
ECU’s Athena SWAN Charter has been developed to encourage and recognise commitment to combating underrepresentation of women in STEMM and advancing their careers in research and academia.

ATHENA SWAN CHARTER

In an exclusive interview, David Ruebain, CEO of Equality Challenge Unit, and Sarah Dickinson, Manager of its Athena SWAN Charter, talk to International Innovation about their work to promote gender equality in the STEMM subjects.

How have your careers and past experiences led to your involvement in the Athena SWAN Charter?

DR: I’m a solicitor by background and used to be a partner in a law firm with a specialist practice in education and equality law. We took cases mainly involving children and students, particularly in the areas of equality issues, gender, race etc. When I left private practice I joined the Equality and Human Rights Commission as their Director of Legal Policy. I left there to become Chief Executive at the Equality Challenge Unit (ECU). My career path has always related to equality and diversity in some way or another.

SD: I’m a social scientist by background. After university I worked for the Royal Society of Chemistry. There I focused on the differences in the PhD experiences of men and women. After that I went to the University of Cambridge and oversaw the Women in Science, Engineering and Technology Initiative, and then I came to ECU to manage the Athena SWAN Charter. Although it was great to be involved at a local level in Cambridge, I was really keen to come back and work at a national level again.

Can you provide some examples of the broad problems that ECU was established to address and the context in which you work?

DR: ECU was established in 2001 in the context of the race equality duty. Most people think of equality law as the basic prohibitions – things you must not do: directly discriminate, indirectly discriminate, victimise, harass and, in the case of disabled people, not make reasonable adjustments. Some of these duties have been around since 1965. However, the law changed in 2000 to address systemic exclusion and disadvantage. So instead of just waiting for somebody to discriminate, harass or victimise, for example, the public sector duty requires public bodies, including universities, to take positive steps to try to eliminate any inherent bias or disadvantage against a community. ECU was set up then, to provide a central resource for universities to try to address the increasingly complicated areas of equality and diversity.

Our remit now is to advance equality and diversity for staff and students in the UK higher education sector. We are essentially a policy and research agency. All of our work is evidence-based. We have colleagues that conduct quantitative and qualitative analysis, from which we develop programmes such as Athena SWAN.

Why are the science, technology, engineering, maths and medicine (STEMM) subjects particularly affected by inequalities in gender and how do UK institutions compare to other countries in Europe and further afield?

DR: One activity that ECU does on an annual basis is to map the demographics of the UK higher education sector by protected characteristics: how many men and women there are, what jobs they do, who progresses and so on. In the case of students, we analyse and produce statistical reports looking at who studies what, who goes to university and what degrees they obtain. If you look at the professoriate in STEMM subjects – the most senior level in academia – there is a clear underrepresentation of women; around 15 per cent of all professors in those subjects are women. In engineering it’s only about...
THE ATHENA SWAN CHARTER COVERS:
Women in academic roles
Progression of students into academia
Working environment for all staff

9 per cent, and it is as low as 5 per cent in mechanical engineering. So in one sense SWAN focuses on those subjects where the underrepresentation of women is most acute. That doesn’t mean to say there aren’t problems in other disciplines. In fact, we are developing another charter – the gender equality charter mark – building on the knowledge and experience of SWAN to work with other disciplines.

SD: The lack of female professors means there are few role models. A lot of women feel they can’t conduct research as well as have a family, and many leave at the transition between PhD and postdoc, or during their postdoc where the necessity to move between institutes can be off-putting to women thinking of starting a family. In lab-based research especially, a culture of presenteeism can lead to the perception that you can’t leave your work or go home. There’s a perception that you can’t balance having a life with being a scientist.

There is evidence to suggest that some subjects, eg: chemistry, have a particularly masculine culture that can also deter women from wanting to continue an academic career.

There are other aspects of STEMM academia aside from culture and a lack of flexibility that seem to pose barriers to women’s career progression. These include appointment and promotion processes, policies that may not be clear or transparent and a lack of career development support.

Similar challenges are also found outside of the UK, but it’s important to recognise that even within a country, issues will vary according to the institution and subject area. Ireland for example (where ECU has just extended Athena SWAN) has a smaller sector, less movement and more reliance on the industrial sector for career progression.

To what extent has the Charter grown since its launch in 2005?

DR: When the Charter was launched it had 10 voluntary member institutions. Now it has 120 member institutions and there are not many UK higher education institutions with STEMM departments that are not participating. In my opinion, the Charter is now seen as a standard to which most universities feel they must aspire or meet. It has almost become an issue of universities feeling they can’t afford not to be successful in this area because it helps them attract staff and maintain their positions as leaders.

How do you work with institutions to encourage them to adopt its principles?

SD: Equality in science is important economically. Over 60 per cent of science undergraduates are women, but men hold 85 per cent of professor appointments. This means that we are leaking a massive proportion of potentially outstanding academic research scientists at various points in the academic career pipeline. If the UK wants to remain at the forefront of scientific research, we cannot afford to lose this supply and institutions are now realising this.

We have set up regional networks through which the member institutions can talk to each other and share good practice. At each of these meetings we answer questions about the process and give a presentation and update. In addition, we also run workshops to help with the application process. We have working groups for different areas: for research institutes not affiliated with higher education and also for medical and dental schools, to ensure that we are supporting those adequately.

What do you foresee for the development and impact of the Charter in the coming years?

DR: We need to ensure that the Charter continues to remain effective and potent. Furthermore, that it can withstand some of the challenges that are inevitable when you have a complicated and comprehensive programme that is supporting institutions to engender dramatic change. Otherwise, I hope that the Charter can grow beyond UK higher education into other sectors, possibly those allied to further education and also other jurisdictions around the world. Ultimately we want the impact to transform the environment for women in STEMM subjects – both in teaching and research. That’s what we believe the Charter can do, but it’s challenging, and therefore we need to make sure that it continues to be effective, and demonstrably so, for everyone involved.
GENDER GAP

ATHENA SWAN AWARDS:

BRONZE AWARD – recognises a solid foundation for eliminating discrimination and developing an inclusive culture that values all staff

SILVER AWARD – recognises a significant record of activity and achievement by the institution in promoting equality and in addressing challenges across the whole institution

GOLD AWARD – recognises sustained progression and achievement in promoting gender equality and to address challenges particular to the discipline

JACKIE HUNTER, CEO for the Biotechnology and Biological Sciences Research Council

With a woman at the helm, the BBSRC is working hard to promote gender equality within the research teams it funds, by tackling unconscious bias, improving equality policy and promoting the benefits of the Athena SWAN Charter

As only the second female CEO of BBSRC, you have said that you want to use your time as Chief Executive to champion equality. Can you elaborate on some of the ways in which you intend to do this?

Equality and diversity are really important in any job, and particularly in science. I hope to drive this agenda in BBSRC, and also more broadly in Research Councils UK (RCUK). I’m going out as much as I can, talking to researchers about the importance of diversity, how women can be more strategic about their careers, the importance of sponsorship and mentorship, and how issues such as unconscious bias can play a role.

BBSRC has analysed the proportion of grant applicants who are women and found it to be less than 20 per cent, and women that do apply tend to be a couple of percentage points less successful. One of my aims is to perform a root cause analysis to find out why. Understanding the root cause of differences is important for seeing what types of intervention would have the most effect.

Every year we send out letters about success rates to the top 30 institutions that receive BBSRC funding. This year we have also included the gender statistics so they can consider whether they are reflective of their pool of potential applicants. We are also going to be carrying out unconscious bias training for all our committees, appointment panels and council, and also my executive team.

When awarding funding, how does BBSRC ensure gender equality?

It comes down to looking at the panel, making sure we have a group of individuals that is ethnically diverse and gender balanced. It then comes back to unconscious bias. At the moment we’re not planning on doing anything as radical as positive discrimination, but it is important to take positive steps such as unconscious bias training. I don’t think I’m in a position to say that we really understand what the root causes are, and until we can do that, it’s difficult to see what interventions would have the most effect, but we are committed to understand what’s behind these patterns.

What do you think are the biggest obstacles that female researchers face?

A huge obstacle is the lack of sponsors – people who identify opportunities and act as your ambassador. Professor Peter Goodfellow – then Head of Research for SmithKline Beecham and previously Professor of Genetics at the University of Cambridge – recommended me for my previous BBSRC Strategy Panel role. I did that and eventually ended up on the BBSRC Council. I would not have thought of applying myself. Often, the first names that come into people’s mind when they’re asked...
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How involved is BBSRC with the Athena SWAN charter?

BBSRC works with Athena SWAN; we were involved in the pilot they did with research institutions, and two of our institutes have awards – the John Innes Centre, Norwich, has a silver and the Pirbright Institute, Woking, has bronze. Athena SWAN wanted to look at how they could work with institutions rather than universities, so we are collaborating within the family of our strategically funded institutes to move them towards Athena SWAN accreditation. I’ve also conducted an analysis of the universities we fund, and most of them have Athena SWAN bronze awards. At the moment, adoption by an institution doesn’t influence our funding decision, but that doesn’t mean it won’t in the future.

SOAPBOX SCIENCE

Dr Nathalie Pettorelli is a research fellow at the Zoological Society of London and Dr Seirian Sumner is a senior lecturer at the University of Bristol. In 2011, they founded Soapbox Science, and have since organised a series of public science communication events that aim to raise the profile of women in science. Having grown from one annual event in London, 2014 saw their reach widen to include events in Bristol, London and Swansea in the UK, and Dublin, Ireland.

Can you introduce Soapbox Science and summarise what you are trying to achieve?

NP: Soapbox Science is a grassroots approach to bringing science to the masses; putting scientists at the cutting edge of their fields on soapboxes on busy urban streets to talk to the passersby about their science. The twist is that only women stand on our soapboxes, and that’s because Soapbox Science aims to make a real difference to the visibility and perception of women in science.

SS: Our format was inspired by the famous Speakers’ Corner in London’s Hyde Park, which has been an arena of free speech for over 100 years. Speakers’ Corner gave a voice to oppressed Victorian Britons, and played a
“Soapbox Science is a grassroots approach to bringing science to the masses; putting scientists at the cutting edge of their fields on soapboxes on busy urban streets to talk to the passersby about their science.”

“Other than the Soapbox Science events, do you participate in any additional activities to promote the position of women in science?”

NP: As a scientist, it’s easy to promote the position of women in science on a daily basis. You can, for example, make sure that you suggest both men and women as potential speakers at international conferences, workshops or seminars; or you can top-up females’ suggestions when it comes to identifying new editorial board members. Small changes can make a difference.

SS: Soapbox’s effort go beyond the live events. We run a dynamic website where we host blogs about women in science – this provides a useful forum for women to air their feelings and experiences about life as a female scientist, and invaluable advice to other women (and men) on the obstacles that litter the scientific career ladder. We also run a Twitter account, which has become an important ‘go-to’ resource on women in science and the news associated with this topic. More locally, I am heavily involved in the Athena SWAN award movement in my department and, like Nathalie, I try to offer support and mentorship for the female students and early career scientists I interact with on a daily basis.

www.soapboxscience.org
Twitter: @SoapboxScience