



Chemistry Equality and Diversity News

Editorial

This edition of the newsletter covers a lot of ground, from gender equality, to mental health, to stress, to research studies on equality, and 'finally' to yet another example of something which shows that we still have a long way to go. Given the breadth of things we cover in this edition it made me wonder whether there was an underlying theme to it all. So, I subjected the whole letter to a word cloud, the results of which are below.



There are some obvious words which stand out: university, research, bias, but what is perhaps a surprise is that the words 'women' and 'men' appear at roughly the same frequency. Thinking about it though it really shouldn't be a surprise since gender equality is not just something for women to deal with, it's something for us all. It's good to see that this newsletter reflects that.

Paul Walton, Chair of Equality & Diversity Group

Accounting for career breaks

A recent article in *Science* by Emily Nicholson encourages staff who have taken career breaks to address the issues when applying for new positions or promotions. (http://www.sciencemag.org/content/348/6236/830.full).

Her tips include:

- Get the data work out how many years of FTE you have completed by calculating time off
 for leave and working part-time, and how much you have achieved each year in terms of
 publications, grants, student, supervision, etc.;
- Correct for the fact that you are not working full-time and extrapolate to what you would have achieved had you not had leave or worked part-time;
- Write about career interruptions up front and in a positive way;
- Emphasize—without complaining—that working part-time while raising children isn't easy, for example "This does not account for the effect reduced working hours and travel opportunities has on networking opportunities, which affect collaborations and citation rates. I have nonetheless established several fruitful national and international collaborations, and my research has scientific and practical impacts."

Helen Coombs

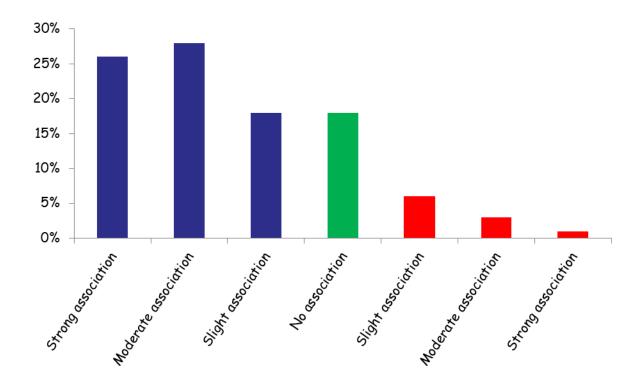
Unconscious bias: take the Harvard Implicit Association Test

It's not that long ago that the notion of implicit bias was known only to psychologists. But now the words 'unconscious bias' are found pretty much everywhere, particularly when it comes to understanding gender inequality in the workplace. Here at York we have been aware of unconscious



bias (UB) for a little while and, indeed, have attempted to measure it in selection panels by recording the differences in the way people spoke about male and female candidates. What we found was that UB was evident, particularly in differences in how male and female candidates received supportive comments from ex-supervisors, and how these were reported at the selection panel. In other words, we still have further to go in making ourselves aware of UB.

One way to raise awareness is to take the Harvard Implicit Association Test. This web-based test measures our instinctive responses to a number of prompts. These prompts potentially carry a gender bias, and—as such—the test measures the degree of gender bias in a person. Very many people have taken the test (so the statistics are good) and the data are startling, showing that almost three quarters of people have an implicit association of men with science. These data are shown in the figure which illustrates the percentage of people who took the test who showed an implicit association of men with science (blue columns) or of women with science (red columns). You'll see that far more people implicitly associate men with science than women with science.



The test is freely available at https://implicit.harvard.edu/implicit/ and only takes about 15 minutes to do.

Paul Walton

York Biochemistry alumna Jane Clarke becomes a Fellow of the Royal Society

Professor Jane Clarke, Wellcome Trust Senior Research Fellow and Professor of Molecular Biophysics at the Department of Chemistry of the University of Cambridge, has been made a Fellow of the Royal Society. A graduate of the University of York, Jane is distinguished for the rigorous physical

chemistry approaches she has adapted and applied to understand protein folding and misfolding.



Jane says, "I left to become a school teacher, and it was only at the age of 40 that I returned to academia to start my PhD. Without my 1st class degree from York that would not have been a possibility."

Jane (then Jane Morgan) lived in Alcuin College, but spent most of her time in Langwith studying Biology with Chemistry (Biochemistry). She was in York in the very early days (1969-

72), when the campus and university population were small: there were only about 1600 undergraduates in all, and only nine on her course.

Her memory is of an idyllic time: "The summers were always hot (!), big groups visited small campuses in those days (my first date with my husband was at a *Who* concert in Central Hall), work was fun. I still enjoy visiting both York campus (I have a collaboration with Jennifer Potts in Biochemistry) and the town regularly (to visit old university friends who never moved away)."

For more details please see the article on the Royal Society's website - https://royalsociety.org/people/fellowship/2015/jane-clarke/

A false positive, for both genders

Back in February, the *Guardian* published an article written Professor Curt Rice from the University of Tromsø, who leads Norway's committee on gender balance in research. The article, entitled *Don't be fooled by the closing gender gap in science PhDs*, discusses the findings of a study published in *Frontiers in Psychology* which pointed towards a change in recruitment trends along the leaky career pipeline of women in STEM subjects. The paper's research monitored how many students, having obtained a BSc in STEM, would go on to complete a PhD. From this was drawn a measurement of 'persistence' in STEM over a 30-year period in the USA. Unsurprisingly, the researchers found a historic trend of there being a higher rate of persistence amongst men compared to women. But



they found that since the 1990s, the persistence rate amongst men and women had equalled.

However, Rice argues that this is not the exciting result it seems, as rather than there being an increase in the persistence rate for women (i.e. more going on to

study for a STEM PhD), it is the persistence rate for men that has decreased. He also argues that the study has neglected to include a crucial qualitative factor, namely at which institutions the BSc students were going on to study for their PhDs. Rice points out that in America this is critical, as the majority of home-grown US academics originate from a handful of high-prestige universities - how many women are moving on to study at these institutions compared to men? Rice concludes that this research has little to add to the overall knowledge about the leaky pipeline of women in STEM subjects, instead giving rise to more questions, such as why are fewer men going on to study for a PhD and why aren't more women? Could the answer be that a PhD has become a less attractive degree, and if so, why?

http://www.theguardian.com/higher-education-network/2015/feb/19/dont-be-fooled-by-the-closing-gender-gap-in-science-phds

Emma Dux

Nature publications move to double-blind peer review

As from March 2015, Nature, Nature Chemical Biology and the other monthly Nature research journals will experiment with a new approach to peer review – instead of the traditional single-blind arrangement (the reviewer knows who the author is, but not vice versa) both parties will be unknown to each other. Those in favour of double-blind review believe that it eliminates biases based on such matters as gender, reputation and affiliation. It is being offered on an optional basis, and the initiative will be kept under review, with feedback sought from authors and reviewers.

http://www.nature.com/nchembio/journal/v11/n4/full/nchembio.1785.html

Catherine Jardine

How representative is our new parliament?

Amongst all the drama of the recent General Election a record number of female MPs were elected – 29% percent of MPs are now women, up from 22% at the last election in 2010. This seems more impressive when you consider that it was not until the Labour landslide in 1997, that the number of female MPs passed the 10% mark for the first time.

The increase is largely due to Labour (43% of their MPs are women) and the overwhelming success of the SNP (36% of whose MPs are women). Meanwhile, following a bad night for the Liberal Democrats they now have no female MPs, despite fielding slightly more women candidates than the

Tories (27% and 26% respectively).



Three of the seven party leaders who featured in the debates were female: Natalie Bennett (Green Party), Leanne Wood (Plaid Cymru) and of course Nicola Sturgeon (SNP). At the last election only one party out of the top ten largest was led by a woman – the Green Party led by Caroline Lucas.

[Image shows the eight women MPs in 1924]

There was also an increase in the number of MPs from non-white backgrounds, up from 27 seats in 2010 to 42 seats in 2015. This was partly driven by the Conservatives' policy to select 10% of their candidates from non-white backgrounds.

There is still some way to go, though – Sweden has a parliament which is 45% female and the UK also lags behind Belgium, Iceland, Argentina and Burundi in terms of gender equality at the highest level. Meanwhile, progress has been limited in terms of age (the average MP remains around 51) and educational background: compared to 7% of the general population, 25% of elected MPs were privately educated (although this figure has improved slightly since the last election).

Political preferences aside, Parliament is slowly but surely becoming more reflective of the country – at least in terms of gender and ethnicity.

- http://www.telegraph.co.uk/women/womens-politics/11591573/General-Election-2015-women-MPs-A-historic-night-for-female-MPs.html
- http://www.theguardian.com/politics/2015/may/08/record-numbers-female-minority-ethnic-mps-commons
- http://www.bbc.co.uk/news/uk-politics-32601280

Eliza Bonello

Women's success rates in RSC Awards improve

In 2014, four of the academic staff in Chemistry received awards from the Royal Society of Chemistry: Professor Sir John Holman won the Lord Lewis Prize, Professor Gideon Davies was named as the Khorana Prize winner, Professor Mike North won the Green Chemistry Award and Professor Duncan Bruce was the Peter Day Award winner:

http://www.york.ac.uk/chemistry/news/deptnews/rscaward14/



The Department was delighted and very proud to have four award winners in one year, but many commented on the fact that all the award winners were male. The dominance of males amongst all RSC award winners has been obvious for a number of years and evidenced by the award winners who visit the Department each year to give seminars. Staff in Chemistry have been vocal about this at the RSC and although we cannot claim to have made a difference, it is pleasing to

see that from 2014 to 2015 the number of female award winners has increased from 11% to 16%: http://www.rsc.org/globalassets/07-news-events/rsc-news/news-articles/2015/05-may/awards-and-prizes/prizes-and-awards-statistics-website--2015-gender-diversity.pdf

Helen Coombs

Concordat to support the career development of researchers: shared practice event 2015



On 16th April the second University-wide shared practice event on the research staff support Concordat was held. A number of representatives from Chemistry took part in the discussions and I attended on behalf of the Chemistry research committee.

The aim of the event was:

- to share current practices in research staff support and professional development and learn from other researchers;
- to help shape the future direction of support for research staff at the University;
- to meet other researchers from across the institution.

Presentations were given by staff on a range of researcher-specific topics, including:

- Dr. Karen Clegg (Concordat coordinator) delivered an overview of the HR Excellence in Research Award and introduced the Concordat to Support the Career Development of Researchers:
- Professor Paul Walton (Chair of the Athena SWAN working group) delivered a talk on Synergies and areas of departure between the Concordat and Athena SWAN;
- Dr. Liz Rylott gave an overview of the Biology Postdoc Society, what it does and what the benefits are.

The event also included lively group discussions that included topics such as:

- What can the university and departments do to better engage with research staff and how can research staff better engage with each other?
- Would research staff benefit from a mentoring scheme, should it be University / faculty or department based?
- What support would you like from the university in terms of career development?
- What other areas identified in the Concordat action plan would you like to explore?

Much of what was discussed has a very close connection to the Chemistry Athena SWAN action plan surrounding the career transitions to and from postdoc.

For more information about the event, including a video clip of Dr. Leonie Jones giving her thoughts after the event, see: http://www.york.ac.uk/admin/hr/about_hr/news/2015/concordat-shared-practice-outcomes.htm

Derek Wann

Mental Health Awareness Week, May 11-17 2015

Various events were held across the University in connection with the national Mental Health Awareness Week this month. Here we focus on one particular campaign of which readers may not be aware, and on approaches for tackling the workplace stress so many of us experience.



At the start of 2014, a campaign was launched across various social media outlets by Jonny Benjamin to find the man who had talked him out of a suicide attempt. In January 2008 Jonny, who had been recently diagnosed with schizoaffective disorder, went to Waterloo Bridge with the sole intention of jumping off it. Miraculously, a member of the public who happened to be walking along the bridge at that time stopped to calmly talk to him down until police arrived and took Jonny back to hospital.

Jonny is now a writer and passionate campaigner for mental health, and on the 6 year anniversary of being talked out of his suicide attempt, started a campaign to find the man he never had a chance to thank for changing his outlook on life and for giving him hope. The campaign was supported by the charity Rethink Mental Illness and resulted in a great deal of media interest in trying to find 'Mike', the name Jonny gave to his saviour.



The whole campaign was recorded by a documentary film crew in a bid to raise awareness of mental health and to help reduce its stigma. It shows all the people Jonny met during his search including those who had been in similar situations or were dealing with aftermath of someone close to them committing suicide. The documentary film, aired on May 4th, ends with the real 'Mike'

eventually being found and reunited with Jonny in an emotional reunion where Jonny finally gets to thank the man who saved his life (the image above shows Jonny (L) with 'Mike')

The #FindMike campaign took off on a global scale on social media, providing a highly successful focus for increasing awareness for mental health, and more specifically for reducing the stigma and fear surrounding schizophrenic disorders. As with all mental health disorders, awareness and openly talking about them will only lead to a more positive outcome for those who suffer from them.

Emma Dux

Approaches to tackling work-related stress

Between 2011 and 2014, an increase was seen in the number of University staff (in the staff survey) saying that they had always or frequently experienced work-related stress in the past 12 months. A similar increase was seen across Chemistry staff. The University and Department are striving to remove the factors which cause work-related to stress, increase support for staff suffering from mental health problems and raise awareness of issues associated with mental health. The University has signed up to be a Mindful Employer: http://www.mindfulemployer.net/ and the Department has expanded the remit of the Equality and Diversity Group to include support for mental health

issues.



Mental Health Awareness Week, which ran for the first time in 2004, focused this year on the theme of 'mindfulness' – taking some time away from work etc. to focus on how you are feeling. It can be done whilst going for a walk, doing yoga, having a quiet sit-down or being in any peaceful environment where you are able to relax. Doing this has been shown to help with both physical and mental health problems, ranging from stress, depression and anxiety to chronic pain and eating disorders.

More information can be found at the Mental Health

Foundation's website (http://www.mentalhealth.org.uk/our-work/mentalhealthawarenessweek/).

Helen Coombs

Mental Health Awareness: talks and activities run by the University of York

To coincide with the national mental health awareness week, the University ran several activities and events, with the emphasis on being open about mental health in order to end stigma and discrimination.

On *Monday,* Jo Hardy gave a presentation on 'Positive Manager Behaviour: Management Competencies for Preventing and Reducing Stress at Work' which gave an insight into:

- how managers can spot the early signs of stress in staff in their teams;
- the areas which cause work related-stress;

- the positive (and negative) behaviours from managers which can lead to work-related stress;
- a tool-kit to help mangers check on which positive behaviours they exhibit and to identify those which may require some further development.



On *Tuesday*, 'Common treatments for Mental Health' were discussed by Jo Goode, Deputy Chief Pharmacist of the Leeds & York Partnership Foundation Trust:

• The talk summarised the types of medications used to treat four different disorders relating to mental health: depression, anxiety, psychosis and insomnia. It focused on how they are different as well as the pros and cons of each.

- Jo was keen to stress that medicines are rarely completely effective on their own so they are combined with other non-medical treatments such as counselling, self-help, exercise etc.
- Another important point was the variety of responses individuals have to medication (efficacy, number of side effects etc.) and so patient understanding of the medication they are taking, and how it affects them personally, is an important factor when prescribing medications to treat mental health disorders.

'A Recipe for Resilience' was discussed by Jo Hardy on Wednesday and covered:

- 3 different approaches to resilience ("bounceback ability"); the resilience prescription (http://en.wikipedia.org/wiki/Dennis_S. Charney), five steps to mental wellbeing (http://www.nhs.uk/conditions/stress-anxiety-depression/pages/improve-mental-wellbeing.aspx) and i-resilience (http://www.robertsoncooper.com/iresilience/)
- From theory to practice including mindfulness (http://www.bemindful.com/)

Resources to turn to for support:

http://www.nhs.uk/Conditions/stress-anxiety-depression/Pages/overcoming-fears.aspx http://www.bemindfulonline.com/

http://www.york.ac.uk/admin/hr/employee assistance/

An open evening at York Sport was held on *Thursday* as research shows that a supervised programme of exercise can be as effective as antidepressants in treating mild or moderate depression. Regular physical activity also reduces the risk of depression and has positive benefits for mental health, including reduced anxiety, enhanced mood and improved self-esteem.

On *Friday*, Dr Angela Simpson (Deputy Head of Health Sciences with responsibility for Nursing, Midwifery and Health Professional Education) gave a presentation on 'Supporting colleagues with common mental health problems'. Angela focussed on stress and depression and concentrated on

- Explaining how to recognise stress/depression in yourself and other people. Signs that someone is suffering can include:
 - withdrawal from established relationships or breakdown in relationships;
 - increased emotional reaction more sensitive or aggressive/agitated or confrontational;
 - loss of motivation / commitment and increased negativity;
 - loss of confidence;
 - indecision;
 - poor concentration and memory impairment;
 - changes to eating, drinking and sleep patterns;

- changes to work attendance.
- Understanding the experience of stress and depression (indicating that research has shown that the e is a gender link to depression, with fewer men than women being open to the idea that they may be suffering from depression).
- Discussing how to support colleagues experiencing stress and depression in the workplace.

The stigma associated with the condition means that people can be reluctant to accept the 'diagnosis' or reluctant to talk about it.

More information can be found on the University's events on the following link: http://www.york.ac.uk/admin/hr/about_hr/news/2015/mental-health-awareness.htm

Helen Coombs, Eliza Bonello and Emma Dux



A view from India

Will Ingram, a York MChem student spending his 4th year at the University of Mumbai, has been making a series of brief radio broadcasts on elements of life in India that he finds particularly interesting, including a feature on female students at Indian universities. To coincide with International Women's Day, Will interviewed people to find out why there were so few female students at university in India – during his 10 minute walk to the department, seeing any female students is a great rarity.



The Indian friends and colleagues Will spoke to explained some of the main reasons why this is, and it seems that problem is predominantly rooted in the nation's family culture. It is explained that with boys, there is the expectation from parents – often made clear from a very young age – that a son will get the best job qualifications and job that he can. Part of the reason behind this could be explained by the social expectation for a son to look after his parents in their old age (whereas a daughter would

be expected to aid her husband with looking after his!). The result of this is that boys are brought up in a culture that focuses them towards education and a profession, whereas there is no such expectation for girls.

One student explains that to even consider studying at university, a girl would need to be from a well-off family; presumably so that her family does not have to make too great a financial sacrifice to fund her studies. Upon arriving at university, female students can expect to be in the minority throughout, and unlike male students, most would be expected to remain living at home.

Apparently 30% of university places in state-run institutions are reserved for female students, but it is not revealed whether this quota is filled or not. One student expresses the belief that the proportion of women in universities is not going to improve with more reserved places, but with a change in society and cultural expectations. There needs to be an alteration in the expectation that a woman's life should be focused purely on children and looking after her family. Very slowly, this might be changing, possibly spurred on by the demands of the Indian economy being too great for the country to only value half its population as potential financial contributors.

Emma Dux

Time for men to speak out: sexism gives the lie to academia's meritocratic principles

An article in *Research Fortnight* by Adam Smith about the sexism in academia claims that men have been shirking their responsibility to talk about the issue and that those men at the top of academia should be prepared to speak out. Chemistry at York was highlighted as a beacon of good practice when it comes to questioning unconscious bias during recruitment.

The author shares his experiences and explains why men must get involved:

It's difficult to get people to speak on the record about sexist behaviour in academia. The



men I've spoken to say the issue is real, but that it is too sensitive to confront. A male researcher never knows how a colleague will take it if he privately draws attention to a sexist remark. Those bold enough to do so need to be prepared to be laughed at, argued with, or told that they're fighting someone else's battle.

• I'm not talking here about overt and malicious discrimination or harassment, but rather the subtle, often unconscious biases that we all carry. Plenty of studies have shown, for

example, that men interrupt women more than they interrupt other men. And in many disciplines, men receive a disproportionate share of citations. One council member of a research council says that she feels her views are sometimes marginalised because she is a woman. But pointing this out, she says, would lead to further ostracism.

- The best way to confront this bias is for men to start talking about it—to have a public debate in the same way that women have. Some male researchers understandably feel that this is not their place. But until they start to question their own behaviour, and to acknowledge their unconscious bias, actions against sexism will remain superficial.
- It's not good enough to get on with your research and refrain from denigrating your female colleagues. Getting informed about gender equality in the workplace, and avoiding all-male panel discussions, are necessary but insufficient steps. Men are not responsible for their sexist colleagues, but it's easier for them to challenge them than it is for women, many of whom fear they'll be dismissed and marginalised for speaking out.
- Men themselves have something to gain from such a debate, and from a change in the
 culture of science. Gender stereotypes keep researchers of both sexes at work late, away
 from their children, and pressure them into certain types of behaviour. Many men quit
 science to work fewer hours under more reasonable pressures.
- Fathers' rights are improving, with shared paternity leave available from this month, but that's no consolation for a researcher whose boss makes him feel like a slacker for taking legally permitted leave. Law change is one thing, but a career break to care for a child or parent is still culturally more acceptable for women than for men. It should not be the case that only certain types of men can succeed in science.
- We can only reduce gender bias if men open up and talk about it with compassion and understanding. This will be awkward: men who join in with such conversations will find themselves saying sexist things inadvertently, but sometimes the path to enlightenment passes through embarrassment. Talking about gender will inevitably mean recognising discrimination based on race, sexuality and so on—and everyone will have to admit that they don't have all the answers.
- To make sure we've got something to talk about, we need to collect some evidence. Recruitment and promotion panels should include an observer to note how the panellists talk about the candidates and how this differs between the genders—how much airtime is given to different candidates, and the balance of positive and negative comments.



The method has already been on trial in the University of York's chemistry department, where the evidence showed that women were treated unfairly. One academic says it changed how he thought about recruitment and how people can unwittingly make biased assumptions. Such evidence, which shines a light on unconscious bias, cannot fail to move the scientifically minded.

- Action on hiring panels should be led by vice-chancellors, around 85 per cent of whom are men. Launching an evidence-gathering drive, encouraging departments to follow York's lead, and talking publicly about their own unconscious bias would combine leadership, transparency and self-criticism in the best way.
- The aim should not be just to generate another policy document about equal treatment, but
 to get individuals to think about and change their behaviour. Institutional promises to enact
 fair policies will remain incomplete until senior staff, especially men, talk openly about their
 biases.

Focusing on men is a way to shift the stagnating debate about gender equality in academia.
 Sexism gives the lie to academia's meritocratic principles. As long as it persists, everyone loses."

Helen Coombs

Athena SWAN case studies

Preparing information for the Athena SWAN resubmission document was hard work and time-consuming, but one of the most rewarding aspects was putting together the case studies. Staff (and a research student!) took the time to write about their personal experiences, and we ended up with case studies from people in different categories and at different points in the careers, all with interesting and touching stories. A number of colleagues who read draft versions of the submission commented on how much they had learned about individuals from the case studies and how moved they were by some of them.

Thank you to everyone who contributed to these, you can see the full set of case studies that we have gathered over the years on: http://www.york.ac.uk/chemistry/department/athenaswan/#tab-5



and those we featured in the submission have their photographs below:

Helen Coombs

Department of Chemistry core hours: a reminder

Core hours for full-time staff in the Department are: 09.45 to 12.00 and 14.00 to 16.15. As a member of staff who both supports flexible working and has to organise departmental meetings, I find it a continual struggle to stick to the core hours for meeting times. Balancing availability of key



staff and rooms for meetings means that often members of admin staff who organise meetings end up inadvertently breaching the core-hours times. We apologise for this, we try to check with staff that the timings of meetings do not cause inconvenience to them, and we try to reschedule if this is the case. We are also looking into extending the use of virtual attendance at meetings so that staff can take part via Skype or other remote means if they

are away from the Department.

Please help by reminding us when an event or meeting taking place outside of core hours affects your ability to attend.

Helen Coombs

And finally...



It's good to know the diploma is included!