



# Cambridge AWiSE Summer Newsletter 2011

## Welcome

This is the last newsletter before we break up for summer and sadly my last edition as coordinator for AWiSE. I have really enjoyed working with the AWiSE team and organising events but have decided to pursue more communications work on a freelance basis. As I have yet to work out how to split myself in two, I have decided to step down as coordinator.

## ***Goodbye and thank you to Joann Leeding.***

We are sorry to see Joann moving on from the position she has held this past year as CamAWiSE Coordinator but very pleased she has the opportunity to expand her publishing and marketing career with new projects in Cambridge. Joann has continued enthusiastically to promote and raise further the profile of Cambridge AWiSE in publicising and organising our networking meetings, not least sending out all those friendly emails keeping the network informed of news and events of interest to women in STEM. All on the Steering Group thank Joann for all her hard work as Coordinator for Cambridge AWiSE.

*Jenny Brookman*



## Summer Networking with

### Georgina Ferry

The last event of the summer was an evening with Georgina Ferry, science writer, who entertained us all with tales from her days in publishing at New Scientist and at Broadcasting House in London. Georgina proved that networks are everything when it comes to building a career on a freelance basis, with much of her work springing from contacts made in previous roles.

After her degree in Experimental Psychology from Oxford she decided against a career in research, instead her desire for a job in science led her to work initially in science publishing where she learnt the basic skills for her next position as a book editor at the New Scientist. Here she gained experience in science journalism and also developed an interest in the role of women in science. The next step of her career was with the BBC Radio Science Unit which she found ideal for communicating ideas in science. With the arrival of children, she became a freelance science writer and combined this with public engagement for the MRC, Wellcome Trust and Royal Institution. An opportunity to write for an Oxford magazine turned into the Editor role. However an article she wrote about Dorothy Hodgkin inspired her to write the now famous biography of Dorothy Hodgkin's life, so becoming an author. This book resulted in the recent play of Hodgkin's life to celebrate the centenary of the Nobel Prize winner's birth. Georgina has written several more science biography books and is planning the next one on science in the time of Shakespeare.



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Whilst Georgina is often asked to talk about the subjects she writes on she very rarely gets asked to talk about her own career. Her career path and successes as a writer and playwright provided inspiration for an appreciative audience.

Joann Leeding and Jenny Brookman

## Return, Change, Re-connect to a Career in STEM

In our June meeting, Katie Perry Chief Executive of the Daphne Jackson Trust led the discussion on returning to careers in STEM and introduced past DJ Fellows Elizabeth Crilly, Olga Gandelman and Erica Bithell to share their experiences.

The Daphne Jackson Trust, <http://www.daphnejackson.org/>, established in 1995 allows women who have had a career break of at least 2 years and at least 3 years of past research experience, to return to research with training and support to boost confidence which is tailored to the individual by DJ Coordinators and mentors. It is predominantly a scheme for academics but industry retraining is being planned. It has a high success rate with 90% staying in research or progressing to another STEM based career.

### Reflections from Past DJ Fellows

Katie, Elizabeth, Olga and Erica shared their different stories of how a Daphne Jackson Fellowship helped them resume their careers following time away from research.

Katie briefly shared her own experiences of the various stages her career took before she became involved with the Daphne Jackson Trust and now in her current role has strong aims to expand the DJ network amongst host institutions and sponsors of the Fellowship.

She strongly emphasized that for Fellowship applicants, the key element needed in returning to research is MOTIVATION. After a

host sponsor is selected, a successful applicant is granted a two year fellowship to re-establish their skills and re-connect with their research. Advice is available by emailing [dfmft@surrey.ac.uk](mailto:dfmft@surrey.ac.uk).

The experiences of Elizabeth, Olga and Erica provided valuable learning points. Elizabeth had doubted her capabilities but during her fellowship she built up her confidence and updated her skills. She valued what this opportunity provided as well as the balance of working part-time. Olga's fellowship in 2000 at the University of Cambridge helped create her current career path from academia to the biotechnology industry. Erica had a long career break (of 19 years!) and lost her confidence. The DJ Fellowship enabled her to reconnect with her previous research and believe in herself again. She now combines this with undergraduate teaching.

Without exception, the four speakers were grateful to the Daphne Jackson Trust for enabling them to return to productive careers in STEM following their career breaks.

*Calli Sze-Tai Yau-Cooper and Jenny Brookman*



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*L to R: Naomi Stevens and Frances Baxter (BWT) and Liz Madgett (MRC)*

## What Next Moving Into Patent Law?

### MRC Women in Science - Cambridge AWiSE Lunchtime Talk

Frances Baxter described her career move from biological related research to becoming a trainee patent attorney. After a Masters in Engineering, a PhD in Biomaterials and further research as a post-doc, Frances decided she wanted to change to a non-lab career. She loved communicating and discussing science more than doing the research herself. So she assessed the skills she had acquired in order to decide what to do. These included:

- a knowledge of science
- an understanding of research processes
- knowing how to learn and acquire knowledge
- communication
- organisation
- analytical skills

After investigating various options from science writing to teaching and searching many sources of career information on websites, she decided on Intellectual Property Law. IP Law consists of trademarks, copyright,

designs and patents. Patent Attorneys normally have science and engineering backgrounds and in drafting patents, are involved in descriptions, drawings, claims and searches for patent prosecution.

The training to become a Patent attorney requires learning about the law, studying for the qualification, doing varied work such as IP strategy and management along with client contact.

### Why Choose a Career in IP Law?

Frances outlined many good reasons for choosing a career in IP Law.

It gives exposure to a wide range of topics and applications.

- Allows you to continue to work with researchers and inventors maintaining the connection with many and diverse research areas.
- Strengthens expertise in science communication.
- Allows career choices within the profession.
- Provides challenging work.

She addressed the question of how to continue using your science training by working in subject specialist groups and by writing and interpreting technical specifications. Training in the UK to be a Chartered Patent Attorney can be either University-based with exams or in-house. Career options include private practice in a law firm, agency work or as a patent specialist in a large organisation e.g. in pharma or engineering companies.

The recruitment process



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Applying to train at a law firm involves a range of written and technical tests, for example to write about an object or process such as PCR. It is advisable to have a basic understanding of patents and patent law before applying and to learn about the particular law firm and its training opportunities.

Naomi Stevens with a Biological Sciences PhD spoke about her experiences as a recent new trainee at Boulton Wade Tennant and both speakers responded to many questions about their career move into patent Law.

The meeting was very well attended and attracted an audience of about 70, mainly PhD and post-doc researchers in the early stages of their scientific careers. It was clearly a very popular topic addressing the issue of how to pursue a science related career after academia.

## Member Profile

An interview with **Tanya Morton**, application engineering manager, MathWorks and Cambridge AWiSE Steering Group member in Plus Magazine.

Tanya Morton has been drawn to three things throughout her career: problem solving, learning new things and educating others. She tells Plus how her role at the mathematical computing software company, [MathWorks](#), combines these three elements perfectly and how mathematical computing has meant her maths makes a real difference in the world. [Read more ...](#)

<http://plus.maths.org/content/career-interview-application-engineering-manager>

## Why have a women's network?

In 1994 a chance remark at the end of an article in Nature about "The Rising Tide" report on women in science and engineering

helped to move forward the formation of the Association for Women in Science and Engineering (AWiSE). "The Rising Tide" report documented the loss of girls and women to science, engineering and technology (SET) at every stage. So what has changed in the intervening years? Do we still need a network for women scientists and engineers?

Many people, women included, get quite uncomfortable about the idea of a women-only network. Men complain that they aren't invited yet I've lost count of the number of times I've been to meetings about flexible working in the sciences, or encouraging more women entrepreneurs and failed to see any men there at all – despite the fact that they are invited. There are plenty of men-only networks – they just aren't called that. For example, a high-tech IT company which shall remain nameless, have a "go-karting club". Needless-to-say there aren't many women in it. There is also a club for middle-aged men who've been made redundant from senior jobs. They don't call it that obviously, but that is really what it is. Essentially, people form clubs to meet with like-minded people – someone they can chat to, someone who will understand where they're coming from, someone who might be able to put them in touch with someone else, or help them with a fresh idea for a problem they are facing.

So why might women scientists and engineers want a women-only network? This is a personal perspective but it reflects a trend that women tend to (though not always) seek out AWiSE when they are at a turning point or facing some difficulty. I remember when I was a fresh-faced young PhD graduate, starting my first job at a large engineering firm. I was one of very few women scientists – in fact I only ever met one



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other. The other women were either secretaries – stereotypically dressed in short skirts, high heels and lots of make up – or technicians – stereotypically dressed in leggings and baggy T-shirts. Most of the men were stereotypically dressed in grey suits or that funny shade of grey-green, wearing cardigans with elbow patches and trousers made of that odd synthetic material that must have been quite popular in the 60's. I remember feeling like the odd-one-out.

Why should that matter? Well it does matter because other people see you as the odd-one-out too. I developed a patentable idea at about the same time as my colleague who was similar in age and qualifications, but male. We both went to see the patent agent. My colleague had a long in-depth discussion about the potential for his idea. I was asked whether my boss knew I was there and was there anyone else who should be included in the patent? That sort of attitude can really dent your confidence. Now I can laugh at it but at the time I remember feeling unsure of myself. Over the last year, I have been struck by the number of young women engineers who have been to AWiSE meetings who have expressed reservations – saying that they don't feel comfortable in their working environment. Having someone to talk to who has been in that situation and can understand, can be enough to keep you from leaving.

Fast forward seven years, I had moved back into academic biosciences and I had just had a baby and was ill. I had intended to return to work full time but I was struggling to cope and I tried to find another scientist who had worked part-time so I could get a better idea of the pros and cons of part time vs full time. No one amongst my circle of friends and colleagues could think of anyone working part time in a senior but untenured academic

research job. I was really quite unprepared for the attitudes of other scientists, male and female, when I finally decided that I really couldn't cope and just had to work part time or else not at all. I went from a promising young thing to a no-hoper in no time at all. That took some getting used to. I've since met a number of women, through women-only networks, who have faced a similar situation with a similar result and at least now I have a better understanding of the world. I may not like it, but I'm now better able to deal with it and move on.

At about the time I was struggling with working part time, being ill and having one and then two babies, I met Joan Mason, the founding Chair of AWiSE. She made an enormous impression upon me. She had faced enormous discrimination but remained completely positive. She turned her considerable energy to helping women to succeed or at least progress. She took any negative comments (whinging if you want to be unkind) and turned them around with "so what are we going to do about it then?" She had such an incredible fighting spirit that infected everyone she dealt with. Recently, when asking someone to speak at an AWiSE meeting I got the response "of course I'll speak, it was Joan and AWiSE that helped me at a difficult time before I got to where I am now". If nothing else, that is an excellent example of the power of a women-only network – a network that understands the problem and can help to find a solution.

Joan died in 2004. For eleven years she was the driving force behind AWiSE. She badgered people into doing things, donating money, giving talks, providing services for free. She represented AWiSE on many national and international bodies. She helped (with the Women's Engineering Society) to establish a mentoring scheme for women in SET called



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MentorSET (see [www.mentorset.org.uk](http://www.mentorset.org.uk)). MentorSET is a very practical way of helping women by helping link them with someone they can talk with about issues to do with work and how home life impacts upon work. She got me into AWiSE by saying “OK so what are we going to do about this then? What’s your email address? When can we get people together for a meeting?” I bet she did the same for many other people.

The problem with these sorts of networks is that people move on. Once an active organiser or two disappears to have a baby, or moves to a job elsewhere, the activity of the branch starts to fade. Once the momentum is lost, it is so much harder to get it started again. Much of the success of Cambridge AWiSE depends on the enthusiasm of a few. If ever I express a fear that the organisation is not sustainable, the response is one of, “no you can’t give up – it is really important”. Most women who might need AWiSE, are at a stage in their lives when they have very little time – trying to juggle work and family leaves little time for anything else.

If we are to keep AWiSE and other women’s networks going, we need to devise a sustainable model and this is what we are attempting to do with Cambridge AWiSE.

I don’t believe that science, engineering and technology have moved on to the point where women can genuinely realise their potential. Just look at the figures. But as Joan would *have said*, “*What are we going to do about it then?*”

Jenny Koenig

## Career Day Report

The **2010 Career Day Report** is now available to download from the website – please follow the links below or cut and paste into your website browser.

<http://www.camawise.org.uk/docs/CamAWiSE%20Career%20Day%20Report.pdf>

The report includes feedback from participants 6 months on, and such was the positive response we have decided to host another event in **June 2012**. Planning is underway and we’d love to hear your ideas and suggestions for topics that you want us to run.

The 2010 event included workshops on workplace politics, how to be a confident manager, effective networking and how to use and interpret body language.

Please email me with ideas, questions or offers of help or sponsorship.



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## EVENTS for 2011-2012

Date	Event
3 <sup>rd</sup> October 2011	STEM Panel at Girl Leadership Day with STEM TEAM Cambridge and St. Marys School.
11 <sup>th</sup> October 2011	MentorSET Meeting Venue: TBC Facilitated by Jacqui Hogan of MentorSET
10 <sup>th</sup> October 2011 Or 17 <sup>th</sup> October 2011 Second event in November, date to be confirmed.	CamTechNet Master Class Event for people thinking of setting up their own business with a focus on women in business and building from a start up to the next stage.
10 <sup>th</sup> November 2011	Science Formal Hall Venue: Lucy Cavendish College Talk at 6pm followed by Formal Hall.
24 <sup>th</sup> November 2011	Joint Event with Cambridge Business Women's Network. Venue: St. Mary's School, Bateman Street. Professor Dame Susan Dawson
<b>2012</b>	
25 <sup>th</sup> Jan	Confidence – New Year New You Venue: Lucy Cavendish College.
21 <sup>st</sup> February	AWiSE AGM
8 <sup>th</sup> March 2012	International Women's Day. Venue: Lucy Cavendish College. Theme: Women leading charities.
15 <sup>th</sup> March 2012	Medics Formal Hall Venue: Lucy Cavendish Formal Hall.
17 <sup>th</sup> March	Science Saturday Cambridge Science Festival
Mid May	Joint event with MRC-LMB Harriet Fear CEO of One Nucleus (new name for ERBI).
15 <sup>th</sup> or 22 <sup>nd</sup> June	2 <sup>nd</sup> Career Day Event
10 <sup>th</sup> July	Summer Networking Venue: Lucy Cavendish College.

This is an outline of suggested and confirmed events for 2011-2012. If you have suggestions for speakers, opportunities for sponsorship or ideas for events that you would like to attend then please email [info@camawise.org.uk](mailto:info@camawise.org.uk)



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## Bits and Pieces

Steering group member Cali Sze Tai Yau  
Copper is part of an energyshare group called  
WBREG0211. You can contact Cali to find out  
more, [sze\\_tai\\_yau3@hotmail.com](mailto:sze_tai_yau3@hotmail.com)

WISE is a renewable energy community group  
on energyshare. Energyshare is a community.  
It brings people together in person and online,  
to challenge the status quo and get more  
control over:

**Where your energy comes from -  
How much you use  
How much you pay for it**

Once you've registered you could....



Hope to see you on [www.energyshare.com](http://www.energyshare.com)  
soon!

## New course in Environmental Sustainability is now available at Cambridge Regional College

For CAMAWiSE members who work with  
young people interested in science, but  
unsure about A-Levels, Cambridge Regional  
College has developed a pioneering new two-  
year specialist course in Environmental  
Sustainability to help serve an expected surge  
in 'green' jobs in the UK. The College has  
worked closely with Edexcel and South  
Staffordshire College to put together the  
innovative full-time BTEC National Extended  
Diploma which will open the doors to careers  
in the environmental sector.

The Diploma will be taught in the new multi-  
million pound SmartLIFE Low Carbon Centre,  
an eco-building where the essential workforce  
skills for building low carbon homes and  
installing renewable energy systems will also  
be taught.

The two-year Diploma begins in September  
2011, and prospective candidates will be  
expected to demonstrate an enthusiasm and  
interest in the environment and sustainable  
development, as well as possess a minimum  
of 4 GCSEs at Grade C or above in Maths,  
Science and English. Contact the Admissions  
Office on 01223 418448 or visit  
[www.camre.ac.uk](http://www.camre.ac.uk) for further information.