

WOMEN AND SPINOUTS RESOURCE

# Speed Mentoring for Spinout Success

OXFORD  
**BROOKES**  
UNIVERSITY




Engineering and  
Physical Sciences  
Research Council

# INTRODUCTION

The findings from our research with women founders<sup>1</sup> highlighted the importance of finding **‘relatable mentors’**. These are women who have successfully created a spinout willing to share their experiences with other women researchers going through the process of spinning out or thinking about commercialising their research. In the light of these findings we recommended that institutions support the development of ‘relatable mentors’ networks of successful women founders both within and outside academia.



 Click here to read more about **The Spinout Journey**

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<sup>1</sup> Griffiths, H., Grisoni, L., Manfredi, S., Still, A., Tzanakou, C. (2020) **The Spinout Journey: Barriers and Enablers to Gender Inclusive Innovation**. Oxford Brookes University Centre for Diversity Policy Research and Practice



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“ I think this shared experience is fantastic, especially for mentees. I would have loved to have had it 15-20 years ago. ”

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Professor Joan Condell, Mentor



## MAKING IT HAPPEN

As part of our project activities we ran a Speed Mentoring event with nine women who have established either spinouts or start-ups or have significant industry and business experience. These mentors were individuals who were already part of the research project network or introduced to the project team by the EPSRC Business Engagement team.

An invitation for potential mentees to take part in this event was sent to Technology Transfer Officers and other KE contacts in universities to reach out to researchers at different stages of their career. The event was later marketed on social media to ensure wider access opportunities. We opened the event to all women researchers but targeted especially early career researchers (ECRs) and those in the very early stages of commercialisation. To encourage preparation and commitment, participating mentees were asked in advance to send one or two questions for the mentors, although this was voluntary and not a condition to take part in the event. The questions received were sent to the mentors ahead of the event in order to give them an idea of the kind of areas mentees wished to discuss.

The event was hosted on Zoom, which allowed participants to attend from across the UK, and was more accessible for anyone with disabilities. The event lasted approximately two hours and most of the time was spent in breakout rooms for the speed mentoring sessions between mentors and mentees. Each speed mentoring session lasted 15 minutes with breakout rooms being set

up so that the mentee to mentor ratio was no more than 3-1. After 15 minutes, mentees were introduced to a different mentor until the session concluded. To ensure this process was smoothly executed, one team member was responsible for preparing breakout rooms in advance for each 15-minute session and moving participants around at the correct time. At the end of speed mentoring sessions, all participants reconvened for a plenary session where mentors were asked to reflect on the event and highlight key points that emerged from the breakout room discussions. This plenary discussion was recorded so it could be shared with participants but the breakout room discussions were not recorded to ensure confidentiality and encourage openness amongst participants.

In our experience this type of event worked very well and offered mentees an opportunity to gain useful insights into spinouts and commercialisation of research from the mentors' experiences. It is an example of intervention that could be easily done by institutions to facilitate knowledge sharing and support the development of relatable mentors networks.

## INDICATIVE TIMETABLE

### INTRODUCTION

Approx. 10 minutes

Brief introduction to the event, the schedule and the mentors.

### BREAKOUT ROOMS

Approx. 90 minutes

Attendees will go into the breakout rooms.

The numbers per each breakout room will depend on the number of mentors and mentees. Having a 3-1 ratio of mentees to mentors per breakout room would be an ideal number.

Each session should last about 15 minutes which offers a taste of the mentoring as well as the chance to meet several mentors in different breakout rooms.

The main room will be open throughout the event for any issues or uncertainties - managed by at least two or three people.

### REFLECTION SESSION

Approx. 15 minutes

The breakout room sessions will finish and everyone will reconvene. This will be a plenary session for 'reflections and comments'.

Mentors will have a chance to share key points that have emerged from the discussion in the breakout rooms. This will be recorded to allow a summary of key points from the event to be collected and shared.

### CLOSING

Approx. 2-3 minutes

Final closing and thanks. Mention any following events in the pipeline.

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“ I left the event with a better understanding of how spinouts are formed, and how funding is gained. It was useful to hear advice from academics who have spun out a company about how to deal with conflicts with more senior academics. The advice on reaching out for support and mentoring, and testing your product idea with as wide an audience as possible, early on, was really useful. ”



# OUR MENTORS AND THEIR KEY MESSAGES

## Kate Barnard



Kate Barnard is Founder & Director, Enjoy The Air Limited and Director of WhatBox Consulting Limited. Kate brings together skills as an engineer and entrepreneur built on 22 years as manager in the engineering and technology group in one of the most

successful innovators globally. With accountability for maintaining and developing strategic academic partnerships around the world, Kate interfaces with government agencies, academics, and students to promote collaboration, focus strategic direction in line with corporate and national needs and ensure a diverse talent pipeline for the future. As leader of multiple national and international research programs, Kate recognises the linkage between new research, social progress and sustainability.

Kate is an Honorary Fellow within the Faculty of Engineering at the University of Nottingham and is currently undertaking an Executive MBA. A chartered engineer and a Fellow of the Institution of Mechanical Engineers, Kate is a professional Programme Manager with Fellowship of the Association of Project Management.

### KATE'S KEY MESSAGE

#### **'Network like mad'**

*"You need to look at what problem are you solving, because otherwise you can come up with a product, you can wait until that product is absolutely perfect, put it in the marketplace and it is not what is required. You need to have a minimum viable product (MVP) and get it out there, have that feedback loop, learn, update and return to market. I definitely spent about four months on networking particularly on LinkedIn. Do you come across as credible? At the end of the day this is all about the people, it's not about the product or the idea. Network like mad, however silly it feels, introducing yourself to lots of people, and some will just 'click'. I've had some calls for an hour and thought, 'Oh my god, what am I going to say? How's this going to work?' But actually there's an element of serendipity that comes out of things. There's no wrong answer. Every day is a school day, and just love it. I have the mentality the best job is the one I haven't found yet."*



## Catherine Bottrill



Catherine Bottrill has almost 20 years' experience working in environmental sustainability. She holds subject expertise in climate mitigation policy, business

sustainability strategy development and environmental impact analysis. Catherine is co-founder and CEO of Pilio, a sustainability technology and consultancy company that spun-out from the University of Oxford in 2011. Pilio works with businesses to develop and implement their sustainability strategies including being on a net zero carbon pathway. They are currently developing tools and services to support businesses assess the carbon and nature impacts in their supply chains. She has provided sustainability expertise to clients in the creative, fashion, hotel, public and retail sectors. Catherine holds an MSc in Environmental Management from Yale University School of Forestry and Environmental Management. In 2016, she was selected as one of the top 15 women in tech by Angel Academe, supported by the City of London. In 2019, Catherine was named on the Open Data Institute's Women Entrepreneur Longlist.

### CATHERINE'S KEY MESSAGE

**'Scope what you want to do, how you want to do it and what resources you need'**

*"A theme that came through the session was how best to start the journey - for me it has been scoping what I want to do, where I want to have impact and what resources do I need to assemble to get there. I quickly learnt that the idea is just the seed, building a company is nurturing and training the seed and even planting another seed. It has been important for me to learn from others, get a diversity of perspectives and experience, develop business skills and bootstrap the core idea to demonstrate the vision. For women like myself that have a research background - business can seem a different world, but actually I have learnt that a science background of hypothesis testing and validation are really helpful to growing a business. There are a lot of resources and support offered by the Research Councils and Universities - if you have an idea you want to pursue, definitely take advantage of these resources. Starting up a company from scratch is an adventurous journey. Build a team that wants to be there for the joys, but also equipped for the challenging moments (and there will be both) so taking the time to build honest and trusting relationships will reap rewards. For me - being an entrepreneur has enabled me to take a total fresh approach and work with amazing people and companies, which I believe will help tackle some of the most important environmental challenges of our time."*

### Professor Joan Condell



Professor Joan Condell is CEO of spinout company ActionSense Ltd and previously CEO of spinout company HidInImage Ltd. She has numerous patents filed in UK and US; and has completed trials with key industrial players with security and wearables technologies. Joan has won Innovation and Enterprise awards for this

commercialisation work. Professor Condell works within the School of Computing, Engineering and Intelligent Systems at the University of Ulster. She is a Senior Fellow of the Centre for Higher Education Research and Practice at Ulster and a fellow of the Higher Education Academy. She was awarded a Distinguished Teaching and Learning Fellowship in 2011, regularly has External Examiner positions in UK and Ireland in teaching and research and is also a member of the Royal Irish Academy Engineering committee. She regularly sits on funding review panels for the UK Research Councils, the Irish Research Council, Innovate UK and UK Research and Innovation. She manages a team of PhD researchers and Research Associates across several of national and EU projects as principal investigator.

#### JOAN'S KEY MESSAGE

***'I would say the best advice is to get a really good mentor as early as you can'***

*"It is a minefield of learning, and I think this shared experience is fantastic, especially for mentees. I would have loved to have had it 15 - 20 years ago, but there's so many things that you will find challenging on the journey, that you're not even aware of until you hit it, and to know that someone else has faced those challenges and that they're coming at you is really valuable. Also I would say the best advice is to get a really good mentor as early as you can, and quite often mentors will do work for very little money because they may be interested in what you're doing or just want to help you. They just might want to keep an eye on what you're doing over a period of time so ideally someone from a similar sector who's tried to do something similar and had successes."*



## FELICITY'S KEY MESSAGE

***'How to manage work/life balance and actually have some kind of survivable time off'***

*"I think a thing that came up quite a lot was how to manage work/life balance and actually have some kind of survivable time off when you're doing the spinout journey. Also how to deal with PIs and other academics who may be involved for better or for worse sometimes, and that's actually a mentoring issue that I've found other places as well, so I think that's probably been quite a recurring theme too. I think it's been very interesting. I really wish I'd had this five years ago."*

## Dr Felicity de Cogan



Felicity got her first degree in Chemistry at the University of York, UK and then moved to the University of Manchester to carry out a PhD. Following this she moved to the University of Birmingham and was awarded Enterprise Fellowships from ARVO and the Royal Academy of Engineering before being tenured in 2017 as the Birmingham

Fellow for Innovation and Entrepreneurship. Felicity's career focuses on translating technologies from bench to bedside and she founded her first company NitroPep Ltd in 2017 based on a novel antimicrobial technology, she commercialised her second technology on drug delivery in 2018 and is currently spinning out her third company based on novel ways to treat blindness.

## Hsin (Sheana) Hua



An award-winning design engineer who has a passion for delivering social impact through design, Sheana's creations have been exhibited worldwide in places such as Dubai Design District, Tokyo Design week and Milan Design Museum. She is a double MSc

graduate from the Royal College of Art and Imperial College London, and has since established herself as a renowned conceptual designer, working on projects such as the Aura anti-pollution device and Tokyo's Transportation system. Affected by scoliosis throughout her life, Sheana is driven to support wheelchair users to live more comfortably with Aergo. Her early prototypes gained support from the James Dyson Foundation, Royal Academy of Engineering and Royal Commission 1851 to develop Aergo from an idea to a commercially viable medical device. Sheana's achievement with Aergo was then recognised by Innovate UK as one of the leading Women in Innovation.

## SHEANA'S KEY MESSAGE

***'Have a really good footprint of where do you see your business goes down the line'***

*"It's easy to underestimate or undervalue yourself at the beginning of the journey, and one piece of advice I got from one of our advisors early on is to have a really good footprint of where do you see your business goes down the line. Start to think about how the exit looks and plan backwards in terms of what value your business is at, and then have the dilution calculation early on, to prevent yourself from giving away too much equity out of desperation in the beginning which is a mistake that I've made - and I can see that in future series As, or Bs, Cs. So I think it's a good exercise to have that and then it also is helpful for planning that pitch or IP strategy going forward as well, knowing how much funding you need in different stages to grow your business and the milestones attached. I think that's just a good exercise on top of all the other planning you have to do."*

### Agne Mulkiate



Agne is a founder of Cycle.land, an Oxford-based company with a mission to disrupt urban transport. The company enables efficient shared mobility from peer-to-peer bike sharing, closed

community shared transport to enterprise solutions for large fleet owners. Cycle.land focuses on technology as well as on the ground operations and offers full-spectrum enabling services for companies to run shared mobility. Cycle.land has been using its technology to run IoT data-driven operations for bike and e-scooter sharing companies and is looking to apply it to shared e-cars and autonomous vehicles.

Agne did her Bachelor's degree at the New College of Florida in American Studies and Civilisation, graduating in 2011. In 2013, Agne completed her Master of Science in Migration Studies at Oxford University. Agne is an Innovation Group Member at the Oxfordshire Local Enterprise Partnership and IDEA Advisory Group Member at Oxford University, an initiative that aims to increase diversity in enterprising activities. She is excited about creating more fair, diverse, and sustainable entrepreneurship that empowers the next generation of entrepreneurs to pursue their dreams.

#### AGNE'S KEY MESSAGE

***'There is more than one way to start a company. Knowing the different approaches helps you to choose the right path for you'***

*"I really enjoyed all of the chats. Mental health discussions kept on reoccurring in many of them. While there has been an increase in awareness that entrepreneurship can be stressful and impact a founder's mental health, perhaps we still don't think enough about the emotional labour that a start-up requires. So when people say, 'Oh, it's my baby,' in terms of the emotional toll that it takes on you, I think it's something to consider... all founders have amazing moments that make them happy and proud, but also many things don't work out. Hence, you have to find the right balance between striving for success for the company and taking care of yourself.*

*The second idea that kept coming up in the discussions is that there is more than one way to start a business. The most common startup approach is where you are the founder, it's your idea, it's your innovation and you do everything including the management of the company. This is the most intense and time-consuming but also you are likely to retain more value and control of the company. The second approach which is more common in spinouts is where you have the idea and you have the innovation but you outsource the management of the company from the beginning. In this case, you hire a professional manager who is responsible for the day-to-day running of the business. This approach is often taken by academics who have other responsibilities and while it requires being more generous with sharing of the equity, it allows you to have more time. There is more than one way to start a company. Knowing the different approaches helps you to choose the right path for you."*



## Dr Liz Rowsell



Liz Rowsell is Corporate R&D Director at Johnson Matthey, a global leader in sustainable technologies. Liz works with a diverse team including chemists, engineers,

biologists, physicists and data scientists.

She received her PhD in 1993 from the University of Essex, in collaboration with the Nitrogen Fixation Unit at Sussex University, investigating charge interactions in Fe-S proteins and Fe coordination complexes using Mössbauer spectroscopy.

Liz joined Johnson Matthey as a Research Scientist developing metal-based therapeutics for the treatment of sepsis in 1993. During her career with Johnson Matthey Liz has worked on the development of catalysts for use in pharmaceuticals, food and personal safety, as well as programmes in biomass processing, gas purification and materials for energy production.

### LIZ'S KEY MESSAGE

*'Be really clear what your product is, or what your offering is; be super-super-crystal-clear, unambiguous, this is what I've invented, this is what I'm offering and this is how I'm going to sell it'*

*"I found that very, very interesting actually. A whole range of start-up ideas, from just actually still in the person's head all the way through to very well thought through business model and quite ready to go. I don't think you can network enough when you're starting out early, without obviously defocussing what you're doing. A couple of things that have really been important to me when I work with start-ups, be really clear what your product is, or what your offering is; be super-super-crystal-clear, unambiguous, this is what I've invented, this is what I'm offering and this is how I'm going to sell it. Thinking about how you're going to make whatever it is you're going to produce. If you aren't making it yourself, partner up with others, how are you going to get this made, and think about down-chain and up-chain of your product and where your value point is. Protection, IP, and also don't overestimate sometimes the value of something. These are quite often high-risk areas, so when you're negotiating and you're thinking about your position, think of it from a number of different angles that will give you what you need."*



### Dr Antonia Sagona



Dr Antonia Sagona is an Associate Professor in the School of Life Sciences, at the University of Warwick. Her expertise lies in microbiology, synthetic biology, cell biology and

biotechnology and is a Member of Warwick Integrative Synthetic Biology Centre and Warwick Antimicrobial Interdisciplinary Centre. Previously, she was an Assistant Professor and BBSRC Fellow at School of Life Sciences, University of Warwick. Since the beginning of her BBSRC Fellowship in 2016, she is a group leader in the Phage Therapy group and her research focuses on engineering synthetic phages designated for different applications and in vitro model systems of phage therapy in human cell environment. Since 2017 and while she was on her BBSRC Fellowship, she started a spinout company (initially Rapiphage Ltd and then Lucidix Biolabs Ltd) together with Dr Richard Amaee with funding from DSV Imperial and investors, focusing on phage-based diagnostics.

She received her PhD from the Medical School, University of Oslo Norway (2012) as a Marie-Curie fellow and upon completion she was awarded the prestigious EMBO long-term postdoctoral fellowship (2013-2015) with host institution the Warwick Medical School. She further continued with a post-doc in synthetic and phage biology.

#### ANTONIA'S KEY MESSAGE

***'You cannot do everything by yourself. It's better to give some equity and have more people on board that can help you'***

*"What we discussed more or less is that we need to have a clear plan from the beginning with the idea that we have, the applications of the idea and the market, the needs of the market; because sometimes we have ideas that the market doesn't really need our ideas, so before starting we need to also have a search on the market, if there is a need for this idea and the product that we need to offer. The second thing is, we all discussed that it is very good to have a support network and mentors and their team to help us. With some of the mentees I talked to, I felt they were overwhelmed because they were trying to do everything by themselves. This is very, very tricky. You cannot do everything by yourself. It's better to give some equity and have more people on board that can help you, rather than being stuck on a situation that you cannot act and you cannot do anything. The final thing that we discussed is we need to act depending on the stage of the career we are. For example if you are a PhD student or a research fellow, and this idea and the spinout company came via your research work in the lab etc, it's best to go for an Innovate UK grant or for a fellowship, an industrial fellowship. If you are by yourself and in another stage of your career, then you have to search for support and funding from another source."*



## MORE TIPS FROM MENTORS

**1** The hardest bit is the start. Try to be as financially calculated as possible and break the tasks ahead of you into chunks and money is crucial.

**5** Bring people in for things that you are not comfortable with or confident about.

**8** Sometimes it can be helpful to do a “deal of reciprocity” where you benefit from someone’s skills and in exchange they benefit from your skills.

**12** The first step is to ensure your idea is needed – talk to as many potential end users as possible.

**16** The difference between a start-up and a spinout is that in the start-up because she owned the IP, she could control the timeline and say no to people.

**17** There is a lot of negotiation taking place often in relation to equity, IP rights, profit share, or cash/salary. You need to think: What can I give? and what can I take? what do I care about? and then negotiate accordingly.

**2** A mistake that sometimes researchers do when they start a spinout company is that they try to do everything themselves. Find a co-founder and develop a team but be careful who chose to work with. People are bound to have different views and approaches so it is important to agree some ground rules with your co-founder to develop a good working relationship.

**9** Enterprise and Industrial fellowships and ICURe can be very helpful to bring you into contact with industry.

**13** One of the most valuable things you can do from day one is to keep a paper trail of all communication. This will be a legal requirement in terms of finance and IP later on but you never know when it could help you out of some sticky situations.

**18** The importance of having a business partner with the right contacts is helpful to accelerate the process.

**3** To help your own work-life balance, try to work with smart people and don’t be afraid to delegate.

**6** There are different roles that founders can chose to have in the company Chief Executive Officer (CEO) or if they do not want to deal with the business side of the company they can chose to be the Chief Scientific Officer (CSO).

**10** There are two ways of developing a spinout: you have the idea, are the innovator but outsource the management functions to others or you are the innovator and the manager. If you want to be both the CEO and the researcher is more time consuming.

**14** When developing a team the most important thing is to find people you can work with.

**19** Mentoring is valuable but it can be challenging to find the right mentor. If mentors are not right for you, you have to let go.

**4** When you are a first time founder you are learning on the job.

**7** You do not need to know everything about the business side but you need to have enough understanding of it to be able to hire people with the right skills to support the company.

**11** Reach out to business leaders for example ask them to join your company board. Having a diverse board is really helpful.

**15** You don’t need to have the product ready, there are companies that fund ideas and this can be a good starting point\*.

**20** Credibility and legitimacy is not about experience and maturity but it is about appearing as a safe pair of hands to university committees, funders and investors. How do you present yourself, and spinout around your experience, ensuring that you deliver what you promise (even in a small research grant).

\* For example: <https://deepscienceventures.com/>

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“ Don't beat yourself up for making mistakes, you learn so much through the experience. You are breaking new ground all the time. ”

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Mentor

### For further information

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