PROFESSIONAL DEVELOPMENT DAY

Tuesday 14th March 2023
**Introduction**

Welcome to the Science Council’s first Professional Development Day for practicing scientists and science technicians. The programme of this day has been carefully developed, in collaboration with our Professional Body members and other partner organisations, for you to gain insight on continuing professional development (CPD) from across the breadth of the science sector. We were keen to bring you together in person for this event as an opportunity to network, especially since the theme of British Science Week this week is *Connections*. We have a fantastic array of speakers, who you can find out more about further in this programme. Thank you for coming and enjoy the day!

Helen Gordon, Science Council Chief Executive

**About the Science Council**

The Science Council is a membership organisation made up of over 30 professional bodies that represent a diverse range of science disciplines. We convene our members to provide them with a forum for collaboration and to amplify the voice of the science community.

We are also the guardian of professional standards for scientists and technicians through our professional registration awards; Chartered Scientist (CSci), Chartered Science Teacher (CSciTeach), Registered Scientist (RSci) and Registered Science Technician (RSciTech). These standards ensure best practice and integrity in the science workforce.
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<td>09:00</td>
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<td>09:30</td>
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<td>Welcome Dr Helen Pain Royal Society of Chemistry</td>
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<td>10:00</td>
<td>SESSION 1 Auditorium</td>
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<td>Panel discussion: Equity, Diversity &amp; Inclusion in STEM</td>
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<td>Chair: Rachel Lambert-Forsyth British Pharmacological Society</td>
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<td>Prof Kate Sang Heriot-Watt University</td>
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<td>Dr Joanna Jasiewicz Royal Society of Chemistry</td>
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<td>11:10</td>
<td>TEA/COFFEE COMFORT BREAK Gallery</td>
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<td>SESSION 2 Auditorium</td>
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<td>Towards a deeper engagement with ethics</td>
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<td>Adam Donnan Institution of Environmental Sciences</td>
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<td>Dr Andy Borrie British Association of Sports and Exercise Sciences</td>
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<td>Promoting neurodiversity - realising the underlying potential all around us</td>
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<td>Dr Laura Watkin and Jamie Mewburn-Crook National Physical Laboratory</td>
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<td>12:40</td>
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<td>Team leadership – a masterclass in connecting with your team</td>
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<td>Tim McLachlan Institute of Food Science &amp; Technology</td>
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<td>How to make yourself transferable</td>
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<td>John-Paul Ashton-Kinlin Institute of Science &amp; Technology</td>
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<td>Breaking glass ceilings – an unusual APT career journey</td>
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<td>Robert Cast Association of Anatomical Pathology Technology</td>
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<td>Making science greener: Community perspectives &amp; solutions</td>
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<td>Dr Deirdre Black Royal Society of Chemistry</td>
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<td>Reflective practice becoming a better scientist</td>
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<td>A squiggly route to CSci</td>
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<td>Isabel Goncalves-Cattuzzo Institute of Science &amp; Technology</td>
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<td>People, Culture &amp; Wellbeing Accreditation &amp; 2023 Awards</td>
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<td>Marcia Fernandes Association for Accredited Learning</td>
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<td>15:00</td>
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<td>The Psychology of Selves: Beyond Imposter Syndrome</td>
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<td>Dr Hannah Roberts Leadership Coach &amp; Trainer</td>
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<td>Alicia Colson Institute of Science &amp; Technology</td>
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<td>Murray Webster University of Gothenburg</td>
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<td>Mark Kennedy Data Science Institute</td>
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<td>SESSION 4 Boardroom</td>
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<td>Inclusive language for an inclusive culture</td>
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<td>Rebecca Peacock Association for Science Education</td>
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Speakers

John-Paul ASHTON-KINLIN

John-Paul was a Technician at Microbiological Validation Services Ltd and the University of Sheffield before moving into Marketing and Project Management at the Institute of Science & Technology and the National Technician Development Centre. John-Paul is now Director of an SME - Pro Vital Medical Services Limited. John-Paul’s experience and advisory roles helped him to side-step, but regards the foundation to have been forged from his work as a technician.

Dr Deirdre BLACK

Dr Deirdre Black is Head of Research & Innovation at the Royal Society of Chemistry where she has led the science policy, programmes and networks teams. Her role includes community insights and horizon scanning, with recent themes ranging from the contributions of science to the SDGs and digitisation in R&D to scientific recognition and green science. Deirdre has a PhD in physics and a postgraduate certificate in sustainable business practice. She held postdoctoral positions in physics and in science education policy in the USA and UK before joining the RSC in 2011.

Dr Andy BORRIE

Andy splits his time between working as a Senior Lecturer in Coaching and Professional Practice (University of Derby) and running his own consultancy business. Andy’s roots are in applied sport science but he is now consulting on professional development projects across education, business and the military (NATO and the British Army). Andy helps develop and deliver on the British Association of Sport and Exercise Sciences professional development programmes.

Robert CAST

Robert completed a BSc Hons in Physiology in 2015 and is Mortuary Operations Manager for NHS Greater Glasgow & Clyde, managing the largest Mortuary and Post Mortem service in the EU.

He is a Registered Science Technician and is an active volunteer in numerous Science Council, AAPT UK and AHCS committees. He is passionate about educating the public and scientific community about the lesser known field of mortuary science, as well as increasing knowledge about the benefits of professional registration. Robert is currently applying for Chartered Scientist status.
Dr Alicia COLSON

Alicia Colson PhD is a member of The Explorers Club Class of 2022 (https://www.explorers.org/the-explorers-club-50/). As an archaeologist and ethnohistorian working with computing scientists, Alicia collaborated with the indigenous peoples, NGOs and governments in Canada and has worked in UK, US, and Antigua to understand something of the clash between outsiders and insiders. She is a member of the AI Group of the Institute for Science and Technology (https://istonline.org.uk/networks/artificial-intelligence-sig/).

Sarah COSGRIFF

Sarah Cosgriff is an Inclusion in Schools Consultant for the Association for Science Education and previously worked on the Improving Gender Balance programmes at the Institute of Physics.

In addition to their role at the ASE, Sarah works for Schools OUT UK, a LGBT+ education charity who founded LGBT+ History Month in the UK.

Adam DONNAN

Adam has worked for the Institute for Environmental Sciences in various roles since 2006. In 2013 he was made the organisation’s first CEO. Adam is a Chartered Environmentalist. Between July 2014 and March 2015, he was the Interim CEO of the Society for the Environment, an umbrella body for registration, bringing together 24 professional institutes.

As well as holding the position of Chair of the Board of Trustees at the Science Council, Adam is also Chair of the Science Council’s Technical Pathway Programme Board, which oversees a project to engage the science community with technical education.

Marcia FERNANDES

Marcia leads the People, Culture & Wellbeing national accreditation at the Association for Accredited Learning (AAL). She has a background in organisational development, quality assurance and accreditation. Marcia mentors organisations to develop person-centred initiatives through process improvement.
Isabel Goncalves Cattuzzo

Isabel is a Departmental Laboratory Manager for the Department of Pharmaceutics at UCL School of Pharmacy. Previously working in industry as a Chemical Engineer, for the last 17 years she has worked for the Research Department of Pharmaceutics, assisting with practical classes in pharmaceutical technology.

Isabel is a Chartered Scientist with the IST, and an Associate Member of the Institution of Chemical Engineers (IChemE), a Fellow of the Higher Education Academy – Advance HE (FHEA) and a Member of the Institute of Leadership and Management (InstLM).

Dr Joanna Jasiewicz

Dr Joanna Jasiewicz leads the Race and Ethnicity Unit at the Royal Society of Chemistry. She is a sociologist by background and specialises in systemic and collaborative approaches to address racism. Joanna is also an expert facilitator and trainer, supporting organisations with compassion and empathy to increase race fluency, understanding of inequalities, and capacities to change mindsets and behaviours.

Mark Kennedy

Mark Kennedy is Co-Director of the Data Science Institute (DSI) at Imperial College London and Associate Professor of Strategy and Organisation in Imperial College Business School. Mark uses and develops methods of computational social science to study how innovations become social realities—that is, thing people accept as part of life, like it or not. Mark’s work has appeared in the American Sociological Review, the Academy of Management Journal, the Academy of Management Review, Organisation Science, the Journal of Management Studies, and Big Data Analytics.

Mark holds degrees from Northwestern University (PhD, MBA) and Stanford (BA).

Rachel Lambert-Forsyth

Rachel Lambert-Forsyth is Chief Executive of the British Pharmacological Society (BPS) and Managing Director of BPS Assessment Ltd. Previously she held various positions at the Royal Society of Biology, holding Director level appointments responsible for Education and Training and Membership and Professional Affairs. She has influenced national policy including advising the government on the 2012 National Curriculum review and was appointed as a Panel member of the Technical Level (T-Level) Panel in healthcare science.

Rachel is passionate about driving collaboration and breaking down barriers to inclusion and champions the importance of building equitable spaces for everyone to achieve their potential in the workplace and beyond. Rachel has 15+ years’ experience working in the professional body sector and is an elected Chartered Fellow of the Royal Society of Biology (CBiol FRSB).
Tim McLACHLAN

As Chief Executive of the Institute of Food Science and Technology, IFST, Tim leads the executive team of the UK’s leading professional body for those involved in all aspects of food science and technology.

Tim’s career in the voluntary sector includes over 25 years leading and developing national charities in allergy, health and social care, Olympic Legacy and social exclusion. Tim completed an MBA at the University of Liverpool, their first student to do so focussing on the voluntary sector. His first degree was in Medicinal Chemistry at the University of Newcastle upon Tyne where he specialised in cancer chemotherapy and the treatment of infectious diseases.

Jamie MEWBURN-CROOK

Jamie is the Neurodiversity Network Lead at the National Physical Laboratory (NPL). He joined NPL in September 2018 as an apprentice and got involved with neurodiversity to further his understanding of his own dyslexia. From here he’s grown into a network lead and supports neurodivergent members of staff and feeds into documents to ensure the workplace is neurodiverse inclusive.

Dr Helen PAIN

Helen is the Chief Executive of the Royal Society of Chemistry. She is a Chartered Chemist and a Chartered Scientist. Helen is a champion for the profession and has commissioned bold campaigns such as Breaking the Barriers and our work to support Technicians. She took up the role of Acting CEO of the Royal Society of Chemistry in January 2020 and was appointed Chief Executive in June 2021.

From 2018 - 2021 Helen was Chair of the Science Council and now chairs the Technician Commitment Steering Board.

Rebecca PEACOCK

Rebecca has worked in science education for nearly twenty years. She started her career as a physics teacher and now supports schools to become more inclusive through the Inclusion in Schools programme with the ASE.
Dr Hannah ROBERTS

As the founder of Intentional Careers™ and host of the top 10 UK podcast Women in STEM Career & Confidence > 30K+ downloads, Dr Hannah Roberts is an award-winning coach on a mission to eradicate inequality in the workplace by guiding women to design careers for fulfilment with a mindset for leadership to build progressive workplace cultures where every individual feels valued.

Hannah is uniquely positioned as a scientist, mum of three with a background in corporate and academia. She was managing director of a spin-out company before pivoting into coaching, speaking and training in 2019. She has clients spanning 6 continents and is a certified One of Many™ Women’s Leadership Coach and Trainer with the Professional Certified Coach credential from the International Coaching Federation and member of the 2023 Forbes Coaches Council. Read her full story at www.hannahnikeroberts.com

Prof Kate SANG

Kate is a Professor of Gender and Employment Studies at Heriot Watt University, specialising in understanding and reducing discrimination in the workplace. In particular, Kate’s recent research has explored neurodiversity, menstrual health and disability in scientific careers. Kate is the Director of the Centre for Research on Employment, Work and the Professions and the Principal Investigator of the UKRI and British Academy funded EDI Caucus.

Dr Laura WATKIN

Laura is the Diversity and Inclusion Business Partner at the National Physical Laboratory (NPL): Laura joined NPL in January 2021 is responsible for developing, implementing, and monitoring NPL’s diversity and inclusion strategy to support the business to deliver against its mission, vision, and values. Embedded within the Human Resources Department, she is the lead for NPL’s strategic diversity and inclusion activities and works collaboratively across the business and with the staff-led networks at NPL to support local action.

Murray WEBSTER

Murray is a student at the University of Gothenburg, where he is currently finishing his work in an MSc European Studies and an MA Theoretical Philosophy. The former focuses on the role of EU digital legislation in the development of political structures. He has worked with the IST’s AI Special Interest Group for a year now, and leads its research section along with Alicia. His proposed PhD is concerned with the relationship between the development of planetary-scale cybernetic architectures and the weakening of systems of governance.
Content

Equity, Diversity and Inclusion - panel discussion

Science has made our world what it is today and benefits enormously from diverse connections and networks. Despite huge scientific progress, diversity in the science workforce is lacking around the world.

Different perspectives, experiences and views are necessary for the advancement of scientific knowledge, but are not always easy to achieve. Historically, the development of scientific thought and its teachings have lacked visible, diverse role models. Individuals from these backgrounds often experienced barriers to education and the scientific professions.

How can we create environments where everyone feels safe and comfortable expressing their own ideas? How can progressive hiring techniques, and those that remove bias, create an expanded pool of talented individuals? What can be done to enable and empower each person to bring their unique outlook into the mix, creating a collaborative environment where innovation can flourish?

The Science Council expert panel discussion will explore this complex combination of challenges and opportunities for equity, diversity and inclusion in the STEM workforce.

Towards a deeper engagement with ethics

No organisation can afford to leave ethical decision-making to chance. One hasty or ill-conceived action can have long-lasting consequences for an organisation and an individual. In this session, Adam Donnan and Dr Andy Borrie explore the topic of professional ethics and its relationship to professional bodies’ codes of conduct.

This session explains the concept of ethics, outlines frameworks for dealing with ethical issues and gives an opportunity to apply these to an ethical dilemma.

Promoting Neurodiversity – Realising the underlying potential all around us

In this 30 min talk, Laura Watkin (Diversity & Inclusion Partner) and Jamie Mewburn-Crook (Neurodiversity Network Lead) from the National Physical Laboratory (NPL) share how their organisation is taking steps to support neurodivergent colleagues, in the talk they will cover:

- NPL’s Diversity and Inclusion strategy and approach to neurodiversity
- What is neurodiversity and some of the common misconceptions that influence organisations’ approaches
- The intracommunity support in place at NPL and benefits which have sprung from it
- Sharing some examples of how we are supporting our colleagues
- Our reflections on the impact of our work to date.

The session will be followed by the opportunity to explore the practical examples in more detail, trialling our neurodiversity kit and learn more about accessibility good practice, as well as answering any questions that you might have.
Team leadership – a masterclass in connecting with your team

Not everyone in the workplace communicates in the same way, and good leaders must be able to adapt to meet the different types of communication that their team members prefer.

Tim provides a masterclass in engaging with your team for optimum connections.

- Virtual teams and hybrid meetings - engaging with every attendee
- Extroverts and Introverts - getting the best from both in the same team
- ‘Know thyself’ - identifying communication preferences and being intentional with each team member.

How to make yourself transferable

Career development is something we are all familiar with, but it is becoming essential to be able to use your pre-existing skills and shift them into a brand new dynamic for success. In this presentation, John-Paul encourages people to think differently about the side-step.

Breaking glass ceilings – an unusual APT career journey

Originally from County Cork, Ireland, Robert completed a BSc Hons in Physiology in 2015 and in 2017 moved to London to fill the post of a Locum Trainee APT. Now based in Glasgow, as a Mortuary Manager, Robert talks us through his unusual and inspiring career journey.

Making science greener: Community perspectives & solutions

In this presentation and Q&A session, Deirdre discusses a project to understand practitioner perspectives on environmental sustainability in the lab. Initiated by members of the Royal Society of Chemistry, the project found many examples of what people are doing already in this area, where would they like to do more and what is holding them back. She reports on ideas about what would help individuals and organisations make science, done in many different contexts, more environmentally sustainable. Please use the following link or QR code to access more detail.

Reflective practice

Andy takes this opportunity to talk broadly about the value of reflective practice and how it can be used in a professional development context.

A squiggly route to CSci

Isabel, a Chartered Scientist, talks us through her career journey and the importance to her of being a CSci with the Institute of Science & Technology.
People, Culture & Wellbeing Accreditation & 2023 Awards

In this session, Marcia highlights the People, Culture and Wellbeing Awards that celebrate innovative and inspirational work for People & Culture or Wellbeing practices within the workplace. She also talks about the national accreditation scheme that recognises organisations as being at the forefront of implementing person-centred initiatives.

The Psychology of Selves: Beyond Imposter Syndrome

Many people are torn – afraid to speak up, be seen, or minimise their achievements and at the same time, are frustrated that they are getting in their own way. Feeling like you will be exposed to not know enough and being your own worst critic is a toxic combination. Learn the three layers to imposter syndrome, where these thoughts and beliefs originate from and three tools to overcome your imposter and fulfil your true potential.

Please use the following link or QR code to access the workbook:

Inclusive language for an inclusive culture

Rebecca, from the Association for Science Education, explores the topic of encouraging inclusivity through language. While language changes constantly, and according to context, subtle changes can make language more inclusive, which can have a real impact on embedding inclusivity.

Artificial intelligence and ethics/trust

Alicia and Murray look at some of the different areas in which AI is used, with some case studies, and consider some of the ethical challenges that occur across the different fields.
Thank you

The Science Council would first like to thank the Institute of Physics for its generosity in kindly hosting this conference at the wonderful IOP venue.

We would also like to thank all of our speakers and the following Member Organisations for their support and contributions to the content of the conference.

- Association for Science Education (ASE)
- British Association of Sport and Exercise Sciences (BASES)
- British Society of Soil Science
- Institute of Food Science & Technology (IFST)
- Institute of Physics and Engineering in Medicine (IPEM)
- Institute of Science and Technology (IST)
- Institution of Environmental Sciences (IES)
- Royal Society of Chemistry (RSC)
- National Physical Laboratory

Finally, we would like to thank our colleagues from UK Research and Innovation (UKRI), Government Science & Engineering (GSE) Profession and the UK Accreditation Service (UKAS), for their collaboration in the development of the day.

Government Science & Engineering

The GSE Profession Strategy - Ensuring the GSE Profession can support its people to make a real difference through government science and engineering. Visit our Government Science & Engineering [GSE] Profession Blog for the latest news and stories shared within our community.