

# The Nigel Botting Meeting for Teachers of Chemistry

28<sup>th</sup> National Scottish Meeting

Friday 24<sup>th</sup> May 2024, Theatre A, School of Chemistry (Purdie Building)

## Programme

- 10.10**      **Welcome to Delegates** (Chair: Morag Easson, Firrhill High School)
- 10.15**      **Paul Webb** (University of St Andrews)  
Where will all the carbon come from?
- 10.45**      **Lyndsay Mitchell** (Culloden Academy)  
It's not a marathon, it's a (teaching) sprint
- 11.05**      **Nicola Jordan/Laura-Alexandra Smith** (The Royal Society of Chemistry)  
RSC Scotland Update
- 11.15**      **Breakout discussions led by Colin McGill** (Edinburgh Napier University) and  
**Facilitators**  
Breakout rooms with different questions returning to theatre A to summarise
- 12.10 - 13.20 Lunch and Exhibitions**
- AFTERNOON SESSION** (Chair: Chris Lloyd, SSERC)
- 13.20**      **John Cochrane** (SSERC)  
STEM Leader 7
- 13.35**      **Brian Chalmers** (University of St Andrews)  
School placements for chemistry undergraduates
- 13.50**      **Douglas Philp** (University of St Andrews) (Chair: David O'Hagan, St Andrews)  
The origin of life
- 14.15**      **Adrian Allan** (Dornoch Academy)  
The art of astonishment - Using Magic to Teach Chemistry
- 14.55**      Closing remarks
- 15.00**      Departure

**The Nigel Botting Meeting (twenty-eighth National Meeting) for Teachers of Chemistry in Scotland**, explores a wide range of chemistry topics, teaching ideas and questions in education and links to the world around us.

This year's conference is opened by **Paul Webb from the University of St Andrews** on a topic of great interest for all as sustainability is embedded across our chemistry and science curricula. As society moves to a low carbon economy and removes fossil fuels, we will still need to make organic molecules like drugs and polymers. Where will that carbon come from?

Next, a change of pace, **as chemistry teacher, Lyndsay Mitchell** will share the successes and challenges of improving our practice through 'teaching sprints'. Teaching sprints are designed to help overloaded teachers improve their practice over a short period by making tiny changes. Then **Nicola Jordan** and **Laura-Alexandra Smith** will provide a brief update on the Royal Society of Chemistry's activities and support for teachers and schools across Scotland.

This year's meeting introduces a **new discussion format** by popular request. Come and have your say! This section will be led by **Colin McGill and a team of facilitators** to assist each breakout discussion and to gather views, to feed them back to the wider lecture theatre forum and also to key organisations beyond this meeting.

Questions:

- How should senior phase chemistry be assessed?
- How does the content of the senior phase chemistry curricula need to change?
- How can we improve the use of practical work in chemistry?
- How can we improve chemistry within the BGE?

After sharing the main discussion points in lecture Theatre A, conversations may continue at lunch in the Willie Russell Building adjacent to the lower exit of the Purdie Building.

Following lunch, John Cochrane of SERCC will have an update on the Young STEM Leaders programme which aims to inspire young people to develop an interest in pursuing STEM subjects. **Brian Chalmers** will outline a programme at St Andrews University that places Chemistry Degree students in Schools and offers a pathway to teaching. Following on, **Doug Philp** will consider a bigger question: The origin of life. Self-replication defines living systems both at the level of the cell and also the molecule (DNA). Can we emulate Nature? We will learn how well chemists can design self-replicating molecules in the lab.

The day will finish with a flourish as we are delighted to welcome back **Adrian Allan** from Dornoch Academy. Performing chemistry demonstrations and magic illusions both require practice, showmanship, audience interaction and suspense followed by a moment of astonishment. Adrian will present a selection of magical chemistry teaching ideas that can be used to mystify, enthuse and engage students in the classroom!

There will of course be time to visit the exhibitors and to reconnect and share ideas with others.

We are delighted to continue to offer **FREE Registration and lunch** to all delegates thanks to generous sponsorship from the Royal Society of Chemistry, SSERC and the University of St Andrews.

Registration open now - [Register here for the Teachers Meeting \(Free\)](#)

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