

# ANALYTICAL MATTERS

ISSUE 20 – AUTUMN EDITION 2021

## UPCOMING EVENTS

*Click on the event titles for more information:*

**RSC Molecular Spectroscopy Group Online Seminar Series**  
21 October 2021, online

**RSC Analytical Biosciences Group Annual General Meeting**  
10 November 2021, online

**JPAG Pharmaceutical Analysis Research Awards & Careers Symposia**  
16 – 17 November 2021, online

**Atomic Spectroscopy Group Virtual Symposium 'E is for Early Career'**  
5 October 2021, online

## CPD RESOURCES

**Analytical Methods Committee Technical Briefs**  
Technical information on a wide range of analytical techniques, found [here](#)

**RSC online CPD**  
[Log](#) your continuing professional development

Welcome to the twentieth issue of Analytical Matters, the e-newsletter of the Analytical Division of the Royal Society of Chemistry (RSC). Analytical Matters aims to showcase the wide range of analytical science activities being run across the Royal Society of Chemistry Analytical Division as well as linking with parts of the UK analytical community beyond our membership.

We have a lot to celebrate in this edition, but first, I would like to thank our outgoing council members, Duncan Graham, Daren Caruana, Paul O’Nion and Apryll Stalcup who have given so much of their time and energy to the Analytical Division over many years, their input has helped to shape the Analytical Division into what it is today. I would like to welcome our new council members, Ian Ball, Jonathan Jones and Bhavik Patel, I very much look forward to working closely with them over the next three years.

I’m delighted to share the news that the collaborative event we hosted with Cancer Research UK has resulted in two CRUK Early Detection and Diagnosis Primer Awards for our community.

Our first online Analytical Research Forum featured high quality talks and posters, highlighting a broad range of analytical techniques and applications. I would like to congratulate all the participants for their contributions to the panel discussions and networking chats and especially the winners of the poster and talk prizes.

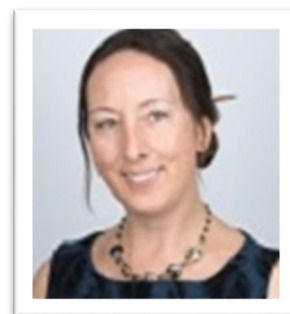
Finally, I would like to congratulate the winners of the 2021 Analytical Division Prizes and winners of RSC Prizes from across the analytical measurement science communities. Thank you to everyone who took the time to make a nomination this year!

Please send your feedback and any content for the next issue by November 30<sup>th</sup> by emailing the Editor [here](#).

With my very best wishes,

**Diane Turner FRSC**

President, RSC Analytical Division



### Welcome to new Analytical Division Council Members

The Analytical Division welcome the following new Members to Council:

- Ian Ball, Johnson Matthey (Elected Member)
- Jonathan Jones, Genedata (Elected Member)
- Bhavik Patel, University of Brighton (Appointed Member)

Further details about our Council Members can be found on the [webpage](#).

The Division Council would like to thank outgoing Members for their commitment and dedication during their time on Analytical Division Council and to those that also served as trustees of the Analytical Chemistry Trust Fund:

- Duncan Graham, University of Strathclyde (Immediate Past President)
- Daren Caruana, UCL (Elected Member)
- Paul O’Nion, RSSL (Elected Member)
- Apryll Stalcup, Dublin City University (Appointed Member)

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### Celebrating the 2021 Royal Society of Chemistry Prize Winners

The [2021 winners of our prizes](#) were announced earlier this year. Congratulations to all the winning individuals, collaborations, and teams from across industry and academia for their outstanding contributions to advancing analytical science. Nominations will open for 2022 Prizes later this year.

#### Analytical Division Research & Innovation Prize Winners

Early Career Award: Joseph Black Award	Dr Ruchi Gupta MRSC, University of Birmingham, UK
Mid-Career Award	Professor Karen Faulds FRSC, University of Strathclyde, UK
Open Award: Theophilus Redwood Award	Professor Kenneth Suslick FRSC, University of Illinois, USA

#### Analytical Division Horizon Prize Winners

Robert Boyle Prize for Analytical Science	NoseToDiagnose team
Sir George Stokes Award	DMF-NMR development team

Read more about the [Analytical Division Prize winners](#).

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### Supporting early career scientists at the Analytical Research Forum

The online 2021 Analytical Research Forum took place on the 15<sup>th</sup> and 16<sup>th</sup> June. The event brought together early career researchers and high-profile analytical scientists, including two RSC Prize winners, to showcase cutting-edge research from across the breadth of fundamental analytical science and its applications. A dedicated panel discussion on career pathways, in collaboration with the RSC Careers Team, and a scientific panel discussion exploring big data analysis catalysed discussion and networking in the virtual environment.



Congratulations to the best talk winners, Lana Brockbals (Zurich Institute of Forensic Medicine, Switzerland) and Craig Jakes (UCD, Ireland) and to the poster prize winners, Niamh O’Mahoney (University College Cork, Ireland); Aristeia Anna Leventi (University of Strathclyde and LGC National Measurement Laboratory, UK); Carla Arnau del Valle (University of East Anglia, UK);

Our [talk and poster prize winners](#) and speaker, [Dr Caroline Gauchotte-Lindsay](#), share their experiences of participating in the Analytical Research Forum.

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## Save the date for the 2022 Analytical Research Forum

Next year's ARF will take place on **Tuesday 14<sup>th</sup> June**, at Burlington House, London.

Abstract submissions will open later in the year and if you are interested in sponsoring the event please contact [analyticalmatters@rsc.org](mailto:analyticalmatters@rsc.org).

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## Facilitating collaborations in the early detection of cancer

Our networking and workshop event, [Measuring Cancer Earlier](#), resulted in two CRUK Early Detection and Diagnosis Primer Awards. Read more about the research and [how early detection research embraces interdisciplinary science](#).

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## Schools' Analyst Competition 2021

The Schools' Analyst Competition took a different form in 2021, with 200 schools and colleges from around the UK and Ireland taking on the challenge of identifying the contents of waste barrels found abandoned by a river in the fictional town of Allvale, all from the socially distanced comfort of their own classrooms.

[Read more about the competition and regional winners.](#)

The Analytical Division would like to thank Graeme Turnbull and colleagues at Northumbria University for creating and distributing the kits and the Analytical Chemistry Trust Fund for funding the competition.

## CONTINUING PROFESSIONAL DEVELOPMENT (CPD) RESOURCES

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### New Analytical Methods Committee Technical Briefs

[Technical Briefs](#) published by the Analytical Methods Committee are prepared by experts in the field to highlight recent information on topics of interest to the analytical chemistry community. Members are welcome to suggest topics for TBs to the AMC Secretary or Chair. Recent technical Briefs include:

- 103 [Wax and wax-like materials – the what, where, and how in heritage collections](#)
- 104 [Thermal desorption part 2: applications in analytical measurement](#)
- 105 [How reliable is my uncertainty estimate?](#)
- 106 [Fourier transform infrared spectroscopic analysis of organic archaeological materials](#)
- 107 [Method selection for liquid chromatography](#)
- 108 [Hand-held X-ray fluorescence analysis of archaeological artefacts](#)

In addition, a report on the Application of GLC to Essential Oils has been published in *Perfumer and Flavorist* 42 (2011) 42-47.

## RSC SUPPORT AND FUNDING OPPORTUNITIES

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**The following schemes are currently accepting applications:**

### Technician Skills Development Grant

The [Technician Skills Development Grant](#) provides up to £7000 to support technicians working in all sectors to undertake short to mid-term visits to organisations overseas or within their current country of residence, with the aim of developing skills to support their career progression. The current application round closes on **14 November 2021**.

## Researcher Enablement Grant

The next round of the [Research Enablement Grant](#) is now open for applications and closes **2pm BST 11 October**. The grant provides up to £10,000 for chemicals, consumables, and equipment to start new projects and complete those disrupted by COVID-19 and can include a salary contribution for a group member. Two applications can be submitted per department and is available to members in the UK and Republic and Ireland only.

## Research Fund

The next round of our [Research Fund](#) is open for applications from **1 November to 2pm GMT 13 December**. Members anywhere in the world with limited access to research funding (particularly those working in less well-funded institutes, those in developing countries and early career researchers) may apply through this fund for a grant of up to £4,000 for 12 months to enable a new research project by contributing to chemicals, consumables, and equipment costs.

## Chemistry week 2021 grants

Apply for funding to run a project in Chemistry week 2021, this year to coincide with COP26 the RSC are extending the annual chemistry week to last for the full 12 days of the conference, 1 to 12 November 2021. To celebrate the COP26 and work currently undertaken across the RSC, the theme this year will be on sustainability and support is available through the [Member Grant Scheme](#) or via the [RSC Outreach Fund](#) (available to all).

The Royal Society offer grants to support travel, events, outreach, and research, as well as personal support and guidance. Find out more at [rsc.li/funding](https://rsc.li/funding).

## OTHER FUNDING OPPORTUNITIES

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### CAMS Fellowship Call 2021

The Analytical Chemistry Trust Fund (ACTF) and Community for Analytical Measurement Science (CAMS) partnership provide a fellowship award of up to £30,000 to assist early career analytical chemists within 5 years of their first full-time junior academic appointment at a UK or Irish HEI to establish their own independent analytical science research identity.

Closing date for applications is **3pm (BST) on 17 September 2021**. Further information and online application forms can be found on the [webpage](#).

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### Gordon F. Kirkbright and Edward Steers Bursary Awards 2022

Supported by the Association of British Spectroscopists Trust (ABS Trust), the Gordon F. Kirkbright and Edward Steers Bursary Awards to assist early career scientists engaged in or utilising analytical spectroscopic techniques to attend a recognised scientific meeting or visit a place of learning.

Closing date for applications is **30 November 2021**. Further information and application forms can be found [here](#).

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### Early Detection and Diagnosis Innovation Sandpit

Cancer Research UK, the Medical Research Council and the Engineering and Physical Sciences Research Council are joining forces to run an innovative sandpit workshop dedicated to the development of novel early detection and diagnosis technologies or novel test combinations for primary care triage.

Applications to attend are welcome from a wide range of disciplines including cancer biology, chemistry, physics, mathematics, computer science and technology. Over the course of the workshop, participants will team up to develop pilot study proposals which they will then pitch to receive seed funding for – up to the value of £230k.

The workshop will be directed by Professor Jon Deeks (University of Birmingham) and Professor Fiona Walter (Queen Mary University of London).

Applications are open until **21 September**. Find out more [cruk.org/innovation-sandpit](https://cruk.org/innovation-sandpit)

### **Reconciling Terminology of PFAS and New Methods to Address the Data Gaps** **23 September 2021 15:00 – 16:30 (BST)**

Per- and poly-fluoroalkyl substances (PFASs) are a large and diverse group of more than 4,700 chemicals known for their unique water, heat, and grease repellent properties. They are used in various applications from consumer products to electronics and building materials. There is increasing evidence of toxicity and potential adverse health effects in humans, and concerns are being raised about their longer-term impact on human health and the environment.

For an effective management of PFAS, the chemical identity of the PFAS actually used, as well as the means to identify the PFAS and its hazardous properties is needed. In this webinar we are exploring the current OECD definition of PFAS and how new approach methodologies (NAMs) are able to help us evaluate and assay PFASs for environmental safety evaluation and biomonitoring.

Register your interest [here](#).

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### **Atomic Spectroscopy Group Virtual Symposium 'E is for Early Career'** **05 October 2021 14:00 -15:00 (BST)**



This meeting will offer the chance to showcase the new research from several early career analytical scientists.

Further information and registration can be found [here](#).

The next symposia in the series will be 'F is for Food'. Further details on upcoming Atomic Spectroscopy Group events can be found [here](#).

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### **The JPAG Pharmaceutical Analysis Research Awards & Careers Symposium 2020** **16-17 November 2021, Online**

JPAG presents the pharmaceutical analysis symposium for postgraduate students and early career stage scientists, including those in industry. This will provide the opportunity for delegates to showcase their work and network with peers, academics, and industrial scientists through oral and poster presentations.

**Abstract submission deadline - 11 October 2021**

As well as the presentation and awards, the event will host a Careers Fair and give all delegates, postgraduate and undergraduate, the opportunity to meet with big industry pharma and other key contacts. This could be the event to give your career a lift to the next level and meet your future employer.

Further information can be found [here](#).

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### **2021 Organic Division poster symposium** **6 December 2021, Online Event**

Dedicated entirely to posters, the competitive symposium provides a fantastic opportunity for final year PhD students to showcase their organic chemistry research (in its broadest sense) and network with peers as well as leading academic and industrial chemists.

The symposia will showcase the top 40 submitted abstracts as selected by the Scientific Committee and prizes are awarded to the best posters, including an Industry Prize awarded to the best research poster that demonstrates potential for industrial application.

Further information and abstract submission is available on the [event webpage](#).

Abstract Submission Deadline: Monday 27th September

## OTHER EVENTS

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### **CAMS Conference 2021 13 – 16 September 2021**

This year's CAMS 2<sup>nd</sup> free to attend virtual annual conference is scheduled as 4 morning or afternoon sessions - each aligned to a CAMS theme - with a range of short presentations for CAMS Academic and Industry Members, as well as CAMS Partners. Each session will also include a skill or personal development workshop, which delegates are encouraged to take part in. Visit the [CAMS website](#) for further details and registration.

- Monday 13 Sep 2021 at 12:30-15:00BST: Point of Use Sensors & Photonics
- Tuesday 14 Sep 2021 at 10:00-12:30BST: Complex Mixtures, Separations & Detections
- Wednesday 15 Sep 2021 at 10:00-12:30BST: Data Analytics
- Thursday 16 Sep 2021 at 12:30-15:00BST: UKRI Landscape & Novel instrumentation or techniques

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### **2021 DAC-EuChemS Awardees Webinar 16 September 2021, 11:00 to 13:30 CEST**

*Recent Advances and Challenges in bio-chemiluminescence based biosensors*

2021 DAC-EuChemS Award winner, Aldo Roda, Alma Laurea University of Bologna (Italy)

*Development of SERS and SESORRS for Multiplexed Bioanalysis*

2021 Robert Kellner Lecture winner, Karen Faulds, University of Strathclyde (UK)

To register, just follow the [link](#).

## OTHER COMMUNITY NEWS

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### **New Royal Society of Chemistry Journal *Sensors & Diagnostics***

[Sensors & Diagnostics](#) publishes critical advances in sensors, sensing devices and systems that apply to monitoring and medical diagnostics.

This gold open access journal is now open for submissions, and all article processing charges are currently waived.

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### **Chemistry in Europe Newsletter**

The latest edition of [Chemistry in Europe](#) published by EuChemS is now available.

To view previous issues of Analytical Matters please use the link: <http://rsc.li/analytical-matters>