

Outreach Newsletter: May 2025

Welcome to the May edition of our Outreach newsletter!

Please do pass this on to anyone who may be interested in receiving this bulletin. They are very welcome to subscribe using this [link](#). If you wish to be removed, please email outreach@chem.ox.ac.uk.

Thank you for reading!

Contents

Click to view

Upcoming Events

Autumn Chemistry Conference
(KS5) **[NEW]**

Oxford University Open Days
(A//) **[NEW]**

MPLS Primary Science Days –
(KS2) **[NEW]**

Creative Chemistry Tents (A//)
[NEW]

Chiral Chemistry Workshops
(KS5) **[UPDATE]**

Chemistry Teaching
Laboratory (CTL) Workshops
(KS4 – KS5) **[UPDATE]**

Oxford College Workshops (Yr
9–12) **[REPEAT]**

Other Opportunities:

Keble College Admissions
Webinars (Yr 12) **[NEW]**

Balliol College Chemistry
Events (Yr 12) **[UPDATE]**

Big Think Competition 2025
(Yr 11–13) **[REPEAT]**

Lincoln College Study Days
2025 (Yr 12) **[REPEAT]**

Trinity College Teacher CPD
Programme (Teachers)
[REPEAT]

PERIODically Podcast (A//)
[REPEAT]

RSC Women in Chemistry (Yr
6–Yr 9) **[REPEAT]**

Learning Resource:

New method developed to
recycle fluoride from PFAS
chemicals (KS5) **[NEW]**



KS5 Autumn Chemistry Conference **[NEW]**



Our sixth Autumn Chemistry Conference will be held on Thursday 25th September 16.00–18.00 BST at the Inorganic Chemistry Laboratory, Department of Chemistry (and streamed online). This will be open to all Year 11, 12 and 13 students (or equiv., 15–19 yrs) and their teachers interested in finding out more about the cutting-edge currently research happening in the field of chemistry.

Students are welcome to attend in-person unaccompanied by a teacher provided that they are aged 16 or over on the day of the event and have provided emergency contact details. Priority will be given to local state schools.

Registration details will be provided soon.

About the speakers:



Dr Josef Boronski is a Lecturer in the Department of Chemistry at Imperial College London and is interested in the chemistry of the elements from the s-, p-, and f-blocks of the Periodic Table. Before this role, Josef graduated with an MChem from the University of York in 2017 and subsequently undertook a PhD at the University of Manchester, which he completed in 2021. In the same year, Josef was awarded a Junior Research Fellowship at St John's College, Oxford. Here, he initiated a programme of research into the chemistry of beryllium. In 2023, Josef won the Dalton Emerging Researcher Prize.



Dr Shurui Miao is the Career Development Research Fellow in Chemistry at St John's College. Before this role, Shurui graduated in 2018 with a BSc in Chemistry from the University of Sydney, Australia and he continued to pursue his postgraduate studies here. In December 2022, he moved to the University of Oxford joining Prof. Susan Perkin as a postdoctoral research associate. Shurui's work specialises in experimental physical chemistry and his research interests are centered around sustainability and self-assembly processes in solution. Shurui's current research focus on understanding how carbonate minerals form, which is crucial for carbon capture and storage, mitigating the effects of climate change.

Oxford University Open Days **[NEW]**

One of the best ways to decide if Oxford might be right for you is to come to one of our **University Open Days**, which this year are taking place on Tuesday 2nd and Wednesday 3rd June 2025, and Friday 19th September 2025. Come and look round our beautiful university city, chat to staff and students and discover for yourself what life here is like.

It is not mandatory to register for an Oxford Open Day, although we strongly recommend that you do in order to receive our newsletters, full of top tips on how to make the most of your day. You may also need to book for some popular sessions in advance.

Please see <https://www.ox.ac.uk/admissions/undergraduate/open-days-and-visits> for further information.

MPLS Primary Science Days **[NEW]**

The MPLS Primary Science Days will take place on 17th and 18th June in the City of Oxford, offering a full day of science activities for Year 5 UK primary students in Oxford state schools.

Hosted by St John's, St Anne's, Lincoln, and Trinity Colleges, the event will include hands-on workshops, a curriculum-relevant lecture demonstration, and opportunities for pupils to meet current undergraduate students and scientists.

There are limited places available for Year 5 students, and you can book them [here](#).

Creative Chemistry Tents – Summer 2025 [NEW]

This summer, departmental ambassadors and staff will be attending seven Oxfordshire Play Association playdays, bringing our Creative Chemistry Tent to parks and green spaces across the county. Visitors to the Creative Chemistry Tent will have the opportunity to meet scientists and enjoy our droplet art activity.

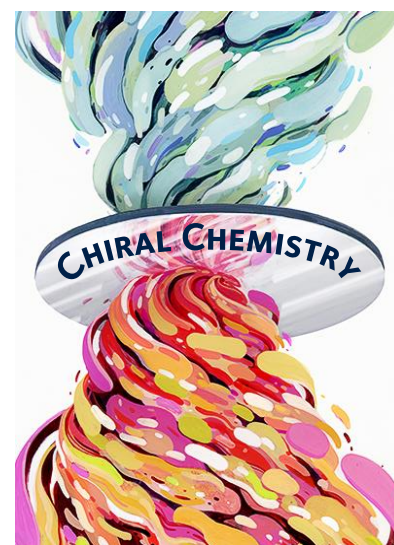
Further details, including event dates, locations, and timings, can be found [here](#).



KS5 Chiral Chemistry Workshops [UPDATE]

We're delighted to share that our Chiral Chemistry online workshop series for the 2024–2025 academic year has now concluded. Delivered by our dedicated department ambassadors, this workshop provided KS5 Chemistry students from UK state schools with a unique opportunity to explore the fascinating world of 3D molecular shapes and chirality.

Over the course of the year, students engaged with real-world examples of chirality in biological systems and gained insight into how research chemists study proteins, including the main protease in SARS-CoV-2—an area of ongoing investigation in our department.



Workshops were well attended, with lively Q&A sessions giving students a chance to learn more about the academic and research journeys of our ambassadors. We were particularly pleased to welcome many students joining independently, supported by teacher contacts.

A big thank you to all the students, teachers, and ambassadors who made this year's workshops a success. We look forward to welcoming a new cohort next year!



Chemistry Teaching Laboratory (CTL) Workshops **[UPDATE]**

Antibiotics: An Organic Synthesis – NEW DATES RELEASED!

The CTL is offering 'Antibiotics: An Organic Synthesis' workshops on 10th, 11th, 12th (**fully booked**), 17th, 18th and 19th June 2025 (**available**). This hands-on workshop introduces Year 10–13 students to the organic synthesis of potential antibiotic compounds. Students will explore antibiotic resistance, carry out a practical synthesis of pharmaceutically active hydrazones, use thin layer chromatography and infrared spectroscopy, and simulate biological testing.

Bookings can be made via this [link](#).

Please note that a number of our programmes are limited to students from state schools in the UK, Isle of Man and Channel Islands, and where we are oversubscribed, we will prioritise places for students who meet our widening participation and access criteria. Further information about this can be found at <https://www.ox.ac.uk/about/increasing-access>

Oxford College Workshops [REPEAT]

You are warmly invited to request a **College Workshop** when arranging a group visit with a College. Find out about your link colleges [here](#). Please note, the inclusion of one of our workshops is subject to the college's capacity to host your visit. Please do copy us (outreach@chem.ox.ac.uk) into any correspondence with the College team regarding the inclusion of one of our workshops. *If you do not hear back from your link college within 14 days, do get in touch directly with us.*



Unlock the OXbOX – Graffiti Game

A puzzle box workshop for Year 9 (13–14 yrs), featuring a series of practical and theoretical problems. Minimum of 12 students from UK state schools.

Unlock the OXbOX – Poison Puzzle

This is for KS4 (14–16 yrs) and is a series of practical and theoretical chemistry problems. Minimum of 12 students from UK state schools.

"It is fantastic for the students to have this opportunity to apply their knowledge to a problem-solving activity and so enjoyable for them." – Teacher

Unlock the OXbOX – Lab Lurker

A series of practical and theoretical chemistry problems for KS5 (16–19 yrs) students. Would suit a class where at least half of the students are studying A level (or equivalent) in Chemistry. Minimum 12 students (at least six studying Chemistry A level, or equivalent), from UK state schools.

You can mix and match Graffiti Game, Poison Puzzle and Lab Lurker puzzle boxes for groups including Year 9, KS4 and KS5 students, as long as there is a minimum of 12 students in total (a minimum of three from a Key Stage is required).

Other Opportunities:

Keble College Admissions Webinars **[NEW]**

Keble College, University of Oxford, is running a series of online Admissions Webinars during the summer term to support students considering applying to Oxford. These sessions provide clear, up-to-date advice on the admissions process and include opportunities to ask questions directly to University staff.



All webinars are open to Year 12/13 (or equivalent) students currently attending UK state schools or colleges, as well as parents, carers, and supporters of prospective applicants. Of particular interest to students considering Chemistry or other subjects within the Mathematical, Physical and Life Sciences (MPLS) Division, these sessions will include guidance on personal statements, super-curricular activities, and Oxford's admissions tests—all with relevance to STEM courses. Please see the schedules below for prospective students and for parents/carers. All sessions are free to attend.

Registration:

- [Register here for Admissions Webinars for prospective students.](#)
- [Register here for Admissions Webinars for parents, carers and supporters.](#)

Registration remains open until 08:00 on the day of each webinar. Joining details will be sent shortly after this time, regardless of when you register.

Balliol College Chemistry Events **[UPDATE]**

Balliol College is hosting the last of a series of free taster days for prospective applicants. These sessions are aimed at UK state school students in Year 12.

Each day includes an Oxford-style undergraduate tutorial, for which students must complete and submit work prior to the event. Participants will also attend an admissions session and take a college tour with current undergraduates.



Due to high demand, applicants must ensure they are available for the entire day and can complete and submit the required work before the deadline. Apply for [Wednesday 4th June](#).

Big Think Competition 2025 [REPEAT]

Submissions for the Big Think Competition 2025 are now open!

Run by St Edmund Hall, Oxford, the competition invites UK state school students in Years 11–13 to tackle a 'big' question set by Oxford academics.

Students are challenged to submit a five-minute video essay answering '*How can Chemistry solve the problem of forever chemicals?*' for a chance to:

- Win cash prizes
- Boost their personal statement
- Visit Oxford and meet the tutors

The deadline for entries is 12 noon on Monday 12th May 2025. Enter [here](#).



Lincoln College Study Days 2025 [REPEAT]

Lincoln College, Oxford, is excited to offer in-person Study Days for Year 12 students from UK state schools. These days are designed for talented students from non-traditional Oxbridge backgrounds interested in Physics/Engineering and considering applications to top universities.

What to Expect:

- Engage with Oxford tutors and students.
- Develop key academic skills like essay planning and critical thinking.
- Prepare for university applications with an admissions workshop and mock interview.
- Accommodation is free, and travel support is available.

Dates & Deadlines:

Physics and Engineering: August 12–14th ([apply](#) by Thursday 22nd May, 12:00/noon).



Trinity College Teacher CPD Programme **[REPEAT]**

Trinity College invites state school teachers and colleagues responsible for student progression to university, to participate in their free online Continuing Professional Development (CPD) programme. This comprehensive programme is designed to provide practical information, guidance, and support for teachers working with students aspiring to apply to Oxford or other higher education institutions.

What's Included?

- Insights into the Oxford application process, admissions tests, and interviews.
- Strategies for higher education applications, personal statements, and teacher references.
- Flexible attendance with a certificate for completing all six sessions.

Who is it for? UK state school teachers, and they particularly welcome teachers from non-selective schools, especially those new to Oxford applications, Russell Group universities, or higher education progression in general.

When and where: Sessions from 13th January to October 2025, online. Residential Easter 2026.

Programme Highlight: Residential (optional): A free, fully funded three-night Teacher Enrichment Residential during Easter 2026, allowing participants to explore a subject area or teaching practice using the University of Oxford's library collections.

How to Register: Sign up [here](#).



Learning Resource:

New method developed to recycle fluoride from PFAS chemicals [**NEW**]



Researchers at the University of Oxford have pioneered a new method to recycle fluoride from long-lived PFAS (per- and polyfluoroalkyl substances), a group of synthetic chemicals known for their durability and persistence in the environment. This innovative approach breaks down these so-called "forever chemicals" and allows for the recovery of fluoride, offering a more sustainable route for managing PFAS waste.

This development marks a significant step forward in tackling environmental pollution and promoting circular economy practices in chemical management.

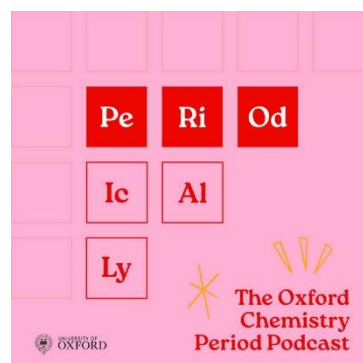
To learn more about this exciting breakthrough, please visit the [full article](#) on the department's website.

Reminder: This topic links closely to DPhil Calum Patel's fascinating talk at the Autumn Chemistry Conference 2024, where he explored the chemistry behind fluorination. If you missed it, you can find more information [here](#).



PERIODically Podcast **[REPEAT]**

PERIODically is a podcast created by undergraduate and postgraduate Chemistry students at the University of Oxford to discuss their experiences of how having a period has affected their time studying Chemistry. The podcast aims to discuss how the physicality and intensive nature of studying Chemistry can be affected by symptoms of periods (such as cramps, mental health and medical issues) and seeks to shed light on these problems, tackle stereotypes and misconceptions, and start a conversation on how study can be improved for those with periods. You can find further information and links to listen [here](#).



RSC Women in Chemistry **[REPEAT]**

A reminder that there are resources for practical challenges, information about research and profiles of team members available via their [website](#). These are particularly suitable for Science Clubs in schools, community groups, such as Scouts and Guides, as well as for enjoyable holiday challenges.



Photo by [Elena Diaz](#) on [Unsplash](#)