

Welcome to the first issue of the RSC Fluorine Chemistry Interest Group newsletter. We want to use this newsletter to inform you on what the Fluorine Chemistry Interest Group is doing and to highlight other events that are occurring within the fluorine community more broadly. We see fluorine chemistry as an area which spans disciplines, and we are always looking for new members and we especially welcome those who might have developed a recent interest in some aspects of fluorine. The Fluorine Chemistry interest group currently counts 220 members across 5 continents.

We hope you will enjoy this issue. Topics for the next issue can be discussed with the Group Secretary, Dr Will Brittain (william.d.brittain@durham.ac.uk). The Newsletter content is agreed by the Fluorine Chemistry Interest Group Committee.

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Editorial From the Chair

Dear RSC Fluorine Chemistry Interest Group members,

We are pleased to introduce you to the first edition of our Newsletter. The RSC Fluorine Chemistry Group was formed in 2001 in recognition of the importance of fluorine to all sectors of the chemistry enterprise. The group exists to promote activity in fluorine chemistry and to help develop the careers of RSC Members associated with the Interest Group. This is enabled through facilitating research discussions and interactions with a particular emphasis on bringing university researchers and industrialists together and at all career stages. With these meetings and the biannual Fluorine Award we aim to highlight success and achievement in fluorine chemistry.

The annual highlight of the Group is the Fluorine Symposium, which takes place over two days at a UK University each year. The programme has invited lectures from established researchers, but there is a particular emphasis on enabling early career researchers (ECRs) including postgraduate students and postdoctoral researchers to present their recent work, both as oral presentations and in posters. Many companies attend and the meeting is an excellent opportunity for networking, exploring career opportunities and to discuss the exciting and varied science that is being carried out within our community. In this regard we value contributions from fluorine groups and researchers who are developing new methodologies for preparing or analysing fluorine containing compounds or from those who are predicting

the behaviour and assessing the performance of fluorinated compound for different applications. It is recognised that cross-fertilisation between different disciplines and across the academia-industry interface is a major driver of innovation, and the Fluorine Group aims to facilitate that.

In April (11th&12th) 2023, we welcome everyone to Merton College at the University of Oxford to attend the next RSC Fluorine Group Symposium.

This *Newsletter* is a new initiative of the RSC Fluorine Group aimed at improving communication with Members on an annual basis, as direct e-mailing is prohibited due to GDPR legislation. In addition to details of future relevant symposia associated with fluorine chemistry the *Newsletter* will update on Committee membership and the biannual RSC Fluorine Award. In this issue there is a call for interested individuals to submit an intention to join the Committee, information which has been distributed separately by the RSC.

We are of course very keen to include news from your side, and to highlight any events that you organise that would be of interest to Group members, awards/Prizes received etc. Please get in touch with the Group secretary if you wish to highlight such information in future issues.

With best wishes,

Bruno Linclau (RSC Fluorine Committee Chair)

Fluorine Chemistry Interest Group Committee Members

Prof. Bruno Linclau (Chair)

Bruno Linclau is Professor of Organic Chemistry at Ghent University, Belgium, where he leads the Organic and Medicinal Chemistry Group. He also has a part-time appointment at Southampton University, where he was based until 2021. His research is focused on investigating the influence of fluorination on physical properties relevant in drug discovery, such as lipophilicity, hydrogen bonding, and conformation, working with small molecules, carbohydrates, steroids and amino acids. He has been the RSC Fluorine Group Chair since January 2022, having served a stint as Secretary before that. After enjoying the hiking and mountainbiking in the Hampshire and Great Britain countryside, he now returned back to his roots, road cycling on the flat Flemish cycleways.



Dr Will Brittain (Secretary)

Will is currently a Leverhulme Early Career Fellow and Assistant Professor of Organic Chemistry at Durham University. His research group utilises fluorine chemistry to tackle a broad range of problems across organic synthesis and catalysis. Currently Will is working on using perfluorinated aromatic compounds in synthetic methodology development with an interest in the generation of highly reactive fluorinated species for example in his recent report on the use of [pentafluoropyridine for the synthesis of acyl fluorides](#). Will was elected to the RSC fluorine committee in 2020 and currently holds the role of secretary. Outside of chemistry Will enjoys walking and baking sourdough pizzas at the weekend.

Prof. David O'Hagan (Treasurer)

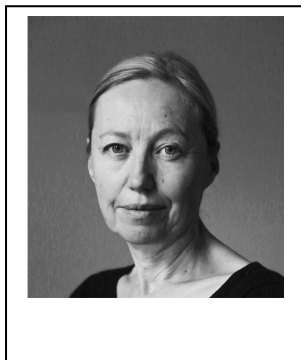
David O'Hagan is a Professor of Organic Chemistry at the University of St Andrews. He has explored the synthesis and properties of organofluorine compounds throughout his career and has had a long interest in fluorinated natural products. His lab identified a naturally occurring fluorination enzyme and the enzyme has been used to incorporate fluorine-18 into molecules for positron emission tomography (PET). Interests extend to the influence and properties of fluorination in organic compounds and extend to bioactives and fluorinated organic materials.

He was awarded the ACS Award for Fluorine Chemistry in 2012 and the Prix Moissan by the *Fondation de la Maison de la Chime* in 2018. He is a founding member and a past Chair of the RSC Fluorine Group and as well as keeping an eye on the finances of the Fluorine Group he has recently been elected President of the Organic Division of the RSC. Outside of chemistry he takes great pleasure in winding up his grandchildren and he likes climbing the Munro mountains in Scotland.



Prof. Véronique Gouverneur

Veronique is currently Professor of Chemistry at the University of Oxford and a Fellow of Merton College. Her research aims at developing new approaches to address long-standing problems in the synthesis of fluorinated molecules including pharmaceutical drugs and probes for imaging (Positron Emission Tomography). She has received numerous prizes and distinctions, more recently the Henri Moissan Prize (2021) and the ACS Arthur C. Cope Award (2022).

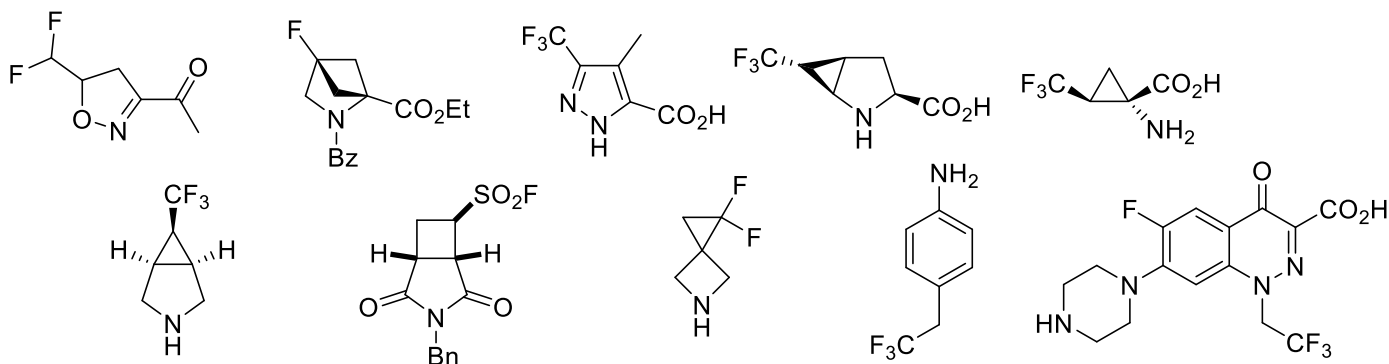


RSC Fluorine Prize 2021 – Dr Pavel Mykhailiuk (Enamine Ltd.)



We are pleased to announce that [Dr Pavel Mykhailiuk](#) from Enamine Ltd has been awarded the RSC Fluorine Prize for 2021. Pavel has made a great impact in the area of organofluorine chemistry synthesising many novel fluorinated building blocks for drug design. His interests include the chemistry of fluorinated diazo compounds, the synthesis of spirocyclic compounds, photochemical cyclisation, preparation of fluorinated amines and accessing analogues of L-proline. Pavel is a prolific author of cutting-edge papers and thorough in-depth reviews, and has published over 150 articles to date. Pavel obtained a PhD in biochemistry from the Technical University of Karlsruhe in Germany working with Prof. Anne Ulrich and a PhD in organic chemistry from the Kyiv National Shevchenko University in Ukraine under the supervision of Prof. Igor Komarov. He has won several other

prizes for his work including the Prize of the President of Ukraine for Young Scientists in 2017. Pavel has made a great contribution to fluorine chemistry, and we are very excited to award him the RSC Fluorine Prize for 2021. Just some of the types of fluorinated compounds Pavel has prepared are shown below.



Unfortunately, due to the events currently ongoing in Ukraine, Pavel has not been able to attend the online Durham meeting where he was due to present his award lecture. Pavel has been invited to the next RSC Fluorine Chemistry Group conference taking place next year in Oxford (see below).

RSC Fluorine Prize 2023 – Call for Nominations

The call for nominations for candidates from the international Fluorine Chemistry community for the **RSC Fluorine Award for 2023** will be announced at the end of this year. The Fluorine Award, which is awarded every two years, is associated with the RSC Fluorine Chemistry Group.

The Fluorine Award is a fully international award which is **not** restricted to members of the RSC. The Award will recognise the most meritorious contribution of a younger chemist (under 40 years of age – career breaks can be taken into account) working in any area of fluorine chemistry as evidenced by their publications. The Award will be judged by an international panel on behalf of the RSC Fluorine Chemistry Group.

An announcement email has been sent out, and is posted on the RSC Fluorine Chemistry Group website (<https://www.rsc.org/membership-and-community/connect-with-others/through-interests/interest-groups/fluorine-chemistry/awards/>), but is reproduced below:

Dear Colleagues,

I just wanted to let you know that nominations are now invited from the international Fluorine Chemistry community for candidates for the **RSC Fluorine Award** for 2023 and the deadline is **31 January 2023, 5pm GMT**.

The Fluorine Award, which is conferred once every two years, is associated with the RSC Fluorine Chemistry Group. It is a fully international award which is **not** restricted to members of the RSC. The Fluorine Award will recognise the most meritorious contribution of a younger chemist, working in any area of fluorine chemistry, as evidenced by their published contributions. The Award **will be judged by an independent international panel** on behalf of the RSC Fluorine Chemistry Group.

Previous winners of the RSC Fluorine Award are:

- 2005** : Professor Norio Shibata, Nagoya, Japan
- 2007** : Professor Thomas Braun, Berlin, Germany
- 2009** : Professor Jinbo Hu, Shanghai, China
- 2011** : Professor Melanie Sanford, Michigan, USA
- 2013** : Professor Tobias Ritter, Harvard, USA
- 2015** : Professor Xingang Zhang, Shanghai, China
- 2017**: Professor Petr Beier, Prague, Czech Republic
- 2019**: Professor Abigail Doyle, Princeton, USA

2021: Dr Pavel Mykhailiuk, Enamine Ltd

Nominations are invited on behalf of applicants who *must be under the age of 40* by **31st December 2022** (taking into account any career breaks, please provide motivation).

The Award will consist of an award of £500 and the winner will be invited to give a lecture at the RSC Fluorine Chemistry Group Postgraduate Meeting in 2023.

Applicants must be nominated and should not make applications on their own behalf. Nominators should **only** send a covering letter (max 2 pages), a Curriculum Vitae (CV, max 2 pages) and a full publication list by e-mail to the chair of the RSC Fluorine Chemistry Group:

Prof Bruno Linclau, Ghent University, Belgium: bruno.linclau@ugent.be

No additional letters of support will be taken into account.

The **deadline of 31 January 2023, 5pm GMT** will be adhered to strictly.

Please would you pass on these details to anyone who you think may be interested in this award.

With best wishes,

Bruno Linclau, Chair

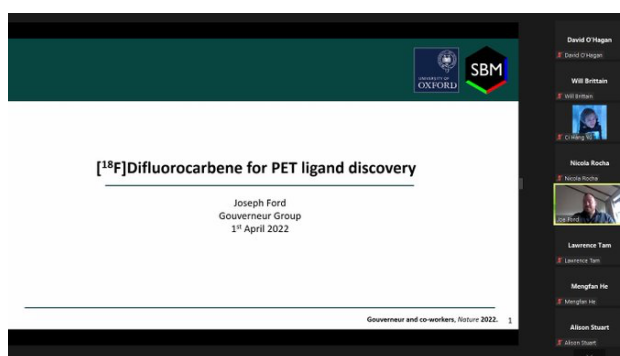
David O'Hagan, Treasurer

Will Brittain, Secretary

RSC Fluorine Chemistry interest Group

20th RSC Fluorine Postgraduate Meeting

Each year the committee holds a two-day symposium to highlight research being conducted by early career researchers (ECRs) in the field of fluorine chemistry. The meeting is also where the annual fluorine award is presented, and several plenary lectures are held. This year the meeting was run online through Durham University with over 100 registered attendees. Over the course of the two days, we saw nine PGRs and two PDRAs give excellent short talks on their current research. These talks spanned a



wide range of applications of fluorine chemistry from organic synthesis to chemical biology to computational analysis. Due to the online nature of this year's meeting, we were also treated to several international ECR speakers including researchers from Brazil and Germany. On the evening of the first day, we had a poster session via Zoom breakout rooms which was a great way to get to talk science with enthusiastic young researchers.

To celebrate the contributions that ECRs make to the fluorine chemistry community we awarded several prizes for talks and posters. Joe Ford from the University of Oxford won the 1st place talk award for his presentation on the use of [\[¹⁸F\]difluorocarbene for the incorporation of difluoromethyl groups](#) into small



molecules for use as Positron Emission Tomography (PET) agents. The 2nd place talk prize was awarded to Rob Troup from the University of Southampton who discussed the synthesis of [fluorinated linkers](#) to modulate the chemical properties of Proteolysis Targeting Chimeras (PROTACs). Poster prizes were awarded to Lilian Maas from the Freie Universitaet Berlin/Newcastle University for her poster on the use of [BT-SCF3 as a source of trifluoromethylthio groups](#) and Nicola Murdoch from the University of St Andrews who presented [cobalt hydrofluorination](#) with concomitant catalysed 1,2-aryl migration.

This year [Dr Alastair Lennox](#) from the University of Bristol gave us a wonderful plenary lecture on the use of electrochemical synthesis techniques to selectively fluorinate and defluorinated small molecules. He discussed the use of electrochemistry to generate [iodane reagents for fluoroarylation](#) and electrochemical [hydrodefluorination of trifluoromethyl ketones](#). His lecture was thoroughly enjoyable and was a real tour-de-force of organofluorine chemistry. We were also really looking forward to welcoming Dr Pavel Mykhailiuk to give his Fluorine Prize Lecture however due to the ongoing situation in Ukraine he was unable to attend. All of our thoughts are with Pavel during this time and we hope that the situation can come to a peaceful conclusion soon. Pavel will hopefully be attending the next postgraduate meeting where he will be giving his prize lecture.

**Announcing the 21st Fluorine Postgraduate Meeting:
Merton College, University of Oxford, 11th-12th April 2023**

If you want to get involved with the meeting it will be back in person in 2023 with the 21st RSC Fluorine Postgraduate Meeting which will be held at Merton College, University of Oxford on the 11th-12th April. A call for both oral and poster presentation abstracts will be announced early in 2023 so please keep your eyes peeled if you are interested in giving a presentation.

We are actively seeking to broaden participation in our meeting and are looking for contributions from scientists in all areas of science who utilise fluorine in their research. If you use fluorine in any part of your research, please submit an abstract, or if you have friends or colleagues who may be interested, please pass on this message. We look forward to welcoming you all to Oxford in 2023.

Call for New Committee Members

There are two Fluorine Chemistry Group committee vacancies: Opportunity to support your community, to share your love of science and to develop professionally! One of the expectations is that each committee member takes it in turn to host one of these meetings while in post. The election process is outlined below. The announcement email has been sent out by the RSC. Please consider applying...and voting!

RSC Member Network Election Process

The committee will open a call for nominations

An email is sent to the members outlining the number of vacancies, information about the responsibilities of committee members, and information about how to apply.

For fairness, and out of consideration for the voting members, personal statements must be **no more than 250 words** long.

We **must** receive a personal statement to include you in the ballot. We will ask you for a personal statement when we reply to your query and at the close of the call.

Members of the network contact the Secretary or Networks team

The Secretary or Networks team will reply to any queries about the role or election process and record any personal statements received from interested candidates.

When the call closes, the Networks team will contact all interested parties

We will follow up with members who contacted us during the call and invite them to nominate themselves by submitting a personal statement (max. 250 words long) **within five working days** of the close of the call.

If we do not receive a personal statement, we will assume that the member has withdrawn their interest and does not wish to be included in the ballot.

Ballots must be open to **as many members of the network as possible**. Ballots are anonymous and only the results are shared with the committee.

If there are more candidates than vacancies an online ballot will be held

The personal statements will be added to the ballot paper, which will be emailed to members of the network.

All votes are anonymous: members will return their votes to the Networks team who will count the votes and return the results to the Secretary.



Celebrating Recent Successes

[Professor O'Hagan](#) has been elected to serve as President of the Organic Chemistry Community of the Royal Society of Chemistry from 2022 until 2025. The Organic Community Committee oversees a range of activities such as the annual Regional Meetings across the UK and Ireland as well as the RSC Prizes associated with the Organic Chemistry. It also aims to collect information from the Organic Chemistry Community to inform the RSC as they develop evidence based policy to inform external agencies and Government.

[Professor Véronique Gouverneur FRS](#) has been awarded the 2022 ACS Arthur C Cope Award, one of the highest honours bestowed by the [American Chemical Society](#) in recognition of her world-leading work on fluorination chemistry. This award, established in 1972, recognises outstanding achievement in the field of organic chemistry, the significance of which has become apparent within the preceding five years. Professor Gouverneur is only the second UK-based scientist to win the award.

Professor Gouverneur said: "This is splendid news and I am truly honoured. This award reflects the dedication, hard work and creativity power of the graduate students and postdoctoral fellows that I have been very fortunate to mentor during my over 20 years at Oxford. Fluorine chemistry is an exciting yet challenging field of research, and I am very fortunate to have a programme that enables our fundamental discoveries to translate into applications that are as diverse as streamlining the production of fluorochemicals or creating probes for molecular imaging." Read about her thoughts and career to date at, https://www.chem.ox.ac.uk/article/veronique-gouverneur-appointed-wayflete-professor-of-chemistry?utm_source=homepage&utm_medium=web Professor Gouverneur

Dates for the Diary

Below are some dates that might be of interest if you are into fluorine chemistry

26th Winter Fluorine Conference, 8th-13th January, 2023, Clearwater Florida, USA - [Weblink](#)

21st RSC Fluorine Postgraduate Meeting, April 11th-12th April, 2023, Merton College, Oxford, UK

23rd International Symposium on Fluorine Chemistry and the 9th International Symposium on Fluorous Technologies, 23rd-28th July, Québec City, Canada - [Weblink](#)