

December/January School News

Welcome to...

The School Office Team is delighted to welcome Giselle Ripardo onboard. Giselle joins us from UCD School of Medicine, and here in Chemistry, her main responsibility will be for Summer School and EDI administration. If you haven't already met Giselle, please call into the School Office to say hello and join us in welcoming her to the School.

The Baumann group welcomes visiting PhD student Sara Vicinanza from the University of Milan who will be working on flow photochemistry projects over the coming months.

Farewell to ...

In January, the Hooper group said farewell to postdoc Suman Debnath who is moving on to a postdoc position with Aiden McDonald at TCD. Thanks Suman!

New Doctors in the House...

Huge congratulations to both Rachel and Fionn for passing their PhD vivas in January. During their PhDs, Rachel worked on the asymmetric synthesis and transformations of chiral ferrocene-containing compounds, while Fionn worked on Pd-catalysed asymmetric transformations of O-heterocycles.



Congratulations and well done to Robert Redmond (Evans group) who recently passed his viva voce. Thanks to Marina (Chair), Pat (Intern) and Prof. John Murphy of Univ. of Strathclyde (Extern) 🍷👏



Congratulations to

Huge Congratulations to the 13 Graduate Research Students who were awarded their degrees on Monday! See the list of students, thesis titles and supervisors at on our Schools [News page](#). We wish them all well in their upcoming adventures in life and chemistry. Ad Astra!



Congratulations to the Chemistry Taught MSc Class of 2023/24 who were conferred on 2nd December: Joshua, Nelly, Sean, Hanno, Aiswarya, Ker Ying, Arathi, Sarah and Karthikeyan! Read more [here](#).



Well Done to Ker Ying Thin who was awarded the 2023/2024 Novartis Dr Vincent Barry Medal on 2nd Dec 2024. We were delighted to have Shane Hayes of Novartis Ireland in UCD to present it to her. See the full news story [here](#).



Congratulations to the Sullivan group, where a collaboration with colleagues in SBBS, "PFAS Clean up" has progressed to the National Challenge Grow Phase, and will hopefully lead to the purchase of a physisorption/chemisorption analyzer in the School.

In December, the lab shared by the Joe Byrne, Andrew Phillips and Tom Hooper research groups was awarded "Green" sustainability certification from *My Green Labs* under the Research Ireland supported lab sustainability pilot program. Many congratulations to all involved.

Dr Fung has been selected to join the International Science Council (ISC) Global Roster of Experts. He shall be called upon by the ISC to provide ad-hoc science advice to the United Nations Secretariat and Member States, develop policy briefs, contribute to statements that amplify the voice of the global scientific community and potentially speak at high-level debates and policy forums where his expertise in AI Education can make a difference.

Dr Fung is the joint-first author of an article "*A Call to Action to Address Escalating Global Threats to Academic Research*", published in the academic journal *Innovation* on January 2, 2025. This article was featured in several news media outlets in China, and on the [World Laureate's Forum](#). Read more [here](#).

Charles is invited to present the research of the Loh's research group at the *ACS Spring 2025 Global Virtual Symposium*, organized by the Carbohydrate Chemistry & Chemical Glycobiology Division of ACS in March, on the timely theme of "Carbohydrates: An important link between chemistry, biology and industries". Check out the programme and the speaker line-up at this [link](#).

Research visits, talks, conferences and events

Our School's Mass Spectrometry Facility featured in a special report from RTE Investigates on Dec 09 2024. The programme is entitled "RTÉ Investigates: Black Market Weight Loss" and can be watched on RTE Player via [this link](#). Our MS lab is shown from 44:30 on.

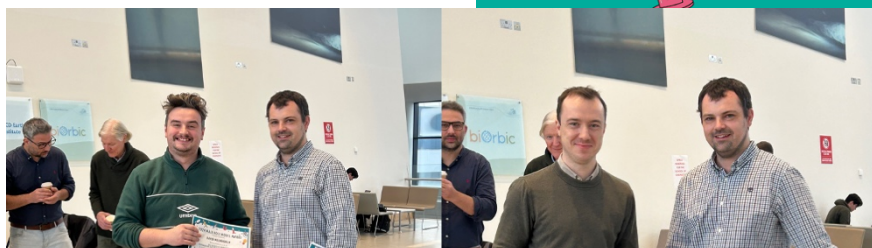
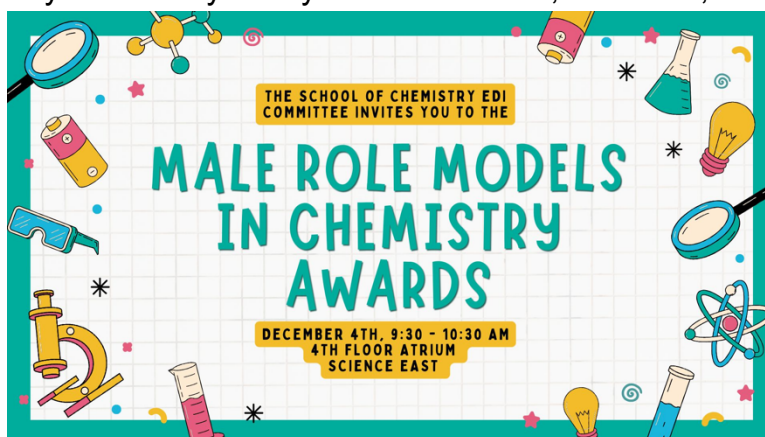
RTE's team looked into the world of Black Market weight loss drugs in Ireland - principally GLP-1 analog peptide-based weight loss formulations ('Ozempic' -like drugs) - which were sourced through unlicensed street and online vendors. Using the School's Agilent 6546 QTOF LCMS



system, Dr. Jimmy Muldoon examined the samples, and using HRMS matching against a locally curated database obtained results consistent with the presence of semaglutide, liraglutide, tirzepatide and most interestingly Retatrutide, which is only undergoing Phase III clinical trials in the US and is not available (even to medical practitioners) as yet. The presence of the latter raises many questions regarding the sourcing of these synthetically challenging materials, and highlights the health concerns from use of medicines of unknown origin, compounding and formulation. Our School's contribution to the analysis of these materials was commended by the producers as an essential component of their report, closing the loop on the

identification of these materials. The programme quickly became one of the 10 most streamed on RTE Player, generating valuable publicity for the School and for the Mass Spectrometry facility.

In early December, the School hosted the *Male Role Models in Chemistry Awards*, to recognise students and staff in the school who go to great lengths to actively promote good EDI practice in our chemistry community. Many thanks to Celine, Marianne, Julia and Parth for organising this wonderful event, and a huge congratulations to David, Colin and Declan on their awards. Well done also to all the other male role models who received nominations.



Staff and Students from the School got together for coffee and mince pies in December. Some pictures of the event below.



The 23rd annual CSCB Symposium, organised by Pat Guiry, was held in the UCD Village on December 13th. Professor Chris Willis (University of Bristol), Professor Bart Jan Ravoo (University of Münster, Germany), Professor Kylie Vincent (University of Oxford, UK), Professor Hon Lam (University of Nottingham, UK), and Professor Matthew Sigman (University of Utah, USA) gave fantastic lectures, along with talks from PhD students and postdocs from universities across the island. Below are pictures of the speakers and prize winners.

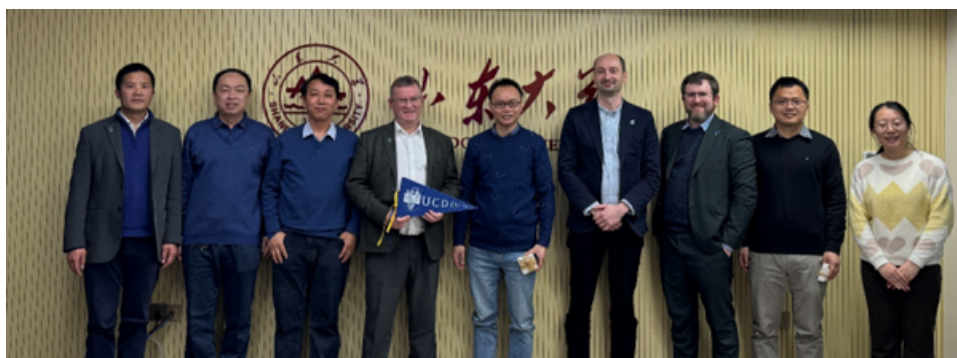


A delegation from the School of Chemistry visited China in early January to explore potential collaborations with partner universities and promote Study Abroad, [International Pre-Masters Pathway Programme](#) and the [China-Ireland Chemistry Summer School](#), as well as discuss new opportunities for research collaborations. James Sullivan, Xiangming Zhu, Marcus Baumann and Joe Byrne met with students from Zhejiang Normal University who studied in our summer school last year and discussed their time in UCD. This was a great opportunity for feedback on this programme, which has been running for seven years.

They also visited Shandong University and Xiamen University to meet with faculty members and students from chemistry departments and research institutes, and build new connections.



James, Marcus and Joe with staff and students from ZJNU School of Chemistry and Materials Science.



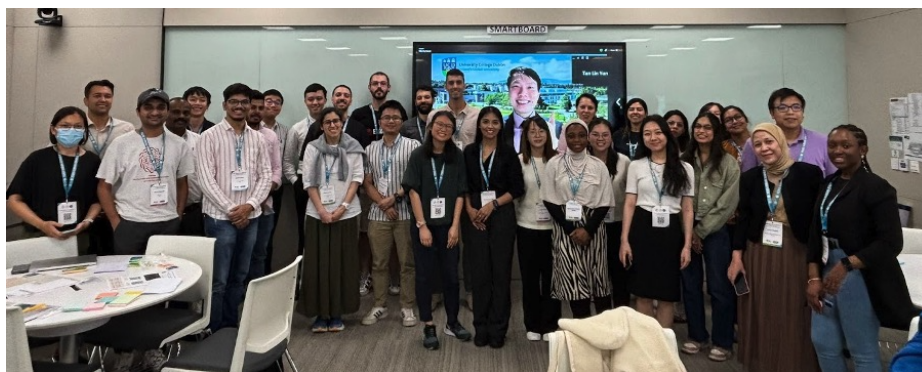
UCD Delegation visits Shandong University



UCD Delegation visits Xiamen University

Dr. Fung gave several overseas talks:

He was a [spotlight speaker](#) at Singapore International Science Teachers' Conference 2024. He spoke on [The Science Odyssey: "Exploring Innovative Strategies for Teaching and Learning"](#). On 28 Nov 2024, Dr. Fung was invited by the Thailand Institute for the Promotion of Teaching Science and Technology and shared his views on "Anticipating Global Challenges by Nurturing Future-Ready Learners: My Thoughts on Singapore's Science Curriculum". On 4 Dec 2024 at the [FEBS-IUBMB-ENABLE](#) Conference held in Nanyang Technological University Singapore, he led a breakout Session Workshop on "A meaningful career as an academic mentor: Teaching, Research, Service". On 16 Dec 2024, he gave the 9th seminar under the Flying Chemists Lectureship at Xiamen University as an invited Visiting Scholar.



In early January, members of the O'Reilly and Baumann Groups travelled to Heriot-Watt University, Edinburgh, to participate in the Continuous BioFlow Network Launch, hosted by the Royal Society of Chemistry. The event featured engaging talks on current research in continuous biomanufacturing and flow biocatalysis, along with networking sessions designed to facilitate new partnerships in the field.



The School is running a College wide fume hood energy audit (likely at the end of Feb, then again in Oct). We are looking for volunteers, ideally two from each floor in A1 and A2 to conduct a fume hood survey at 7am and 3pm on the same day, taking approx. 30 mins. Volunteers would be required to fill out a tick-box spreadsheet of fume hoods in their designated area. Any help would be much appreciated, the more help the less time it will take! Please contact Kristy if you would like to help.

Prof Pat Guiry was recently involved in the judging of the 61st BT Young Scientist & Technology Exhibition. Pictured below is then Táinaiste Michael Martin signing a Memorandum of Understanding between the Department for Foreign Affairs and the Board of the Young Scientist and Technology for the internationalisation of the Young Scientist & Technology.

Pat also presented a talk remembering Prof. Dervilla Donnelly at the Robert Boyle Winter School in the RDS recently.



On the 22nd of November, Hend Shayoub and Amelia Auville attended the 48th Annual Congress in ATU, Sligo where Amelia presented a poster on the Resolution of enantiopure transition metal polypyridyl complexes via HPLC as a gateway to DNA targeting probes (Simon N. Smith, Daniel Graczyk, **Amélia Auville**, Victoria Stadler, Susan J. Quinn).



Susan Quinn delivered a talk on “Triggering DNA – intracellular delivery of molecules” at the SSPC Drug delivery and Formulation Knowledge day held in the University of Limerick on the 5th December.

On 6th December 2024, Eleanor Windle and Amelia Auville attended the IBICS-8 meeting held in UCC where Eleanor delivered a **talk** titled 'Disaggregation of Metallo-phthalocyanines by Guanine-rich Nucleic Acid Sequences Monitored with Steady-state and Ultrafast Spectroscopies,' and Amelia gave a **flash presentation** and **poster** on Resolution of enantiopure transition metal polypyridyl complexes via HPLC as a gateway to DNA targeting probes.

The group (Susan Quinn, Simon Smith, Amelia Auville, Hend Shayoub, Searena Carroll and Jordan Mulvaney) also enjoyed the talks at the annual CSCB symposium.

Publications from staff and students in the School

Aniello Palma and co-workers report the publication of their works:

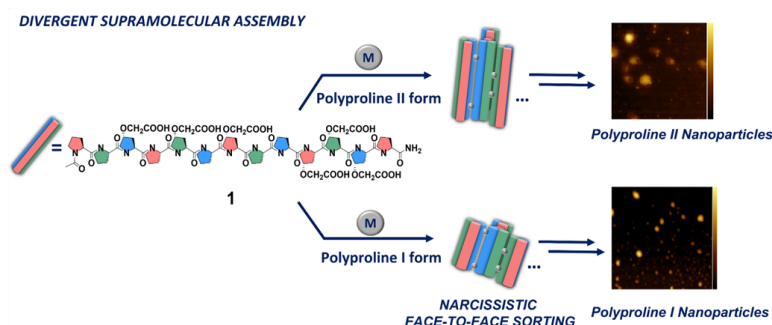
“Applying Metallo-Organic Ligand Design Principles to the Stereoselective Synthesis of a Peptide-Based Pd₂L₄X₄ Cage” in ChemistryEurope.



In this work, which is a feature cover, the design principles used for the synthesis of classical metallo-organic ligands have been successfully translated to polyproline peptides, a biocompatible class of chiral ligands. These peptide-based ditopic ligands have been successfully used to stereoselectively synthesize a novel Pd lantern cage, which exhibits excellent stability in water and demonstrates the stabilization of a highly reactive species in solution. This multidisciplinary project was also highlighted in ChemistryViews with a dedicated behind the scene article: <https://www.chemistryviews.org/chiral-d-lantern-cage-synthesized-with-peptide/>

Dr Palma and his team also report the publication of a research article in Nanoscale Advances entitled *“Sequence-controlled divergent supramolecular assembly of polyproline helices into metallo-peptide nanoparticles”*.

In this work, we report the first design, synthesis and characterization of polyproline based metallo-peptide nanoparticles. We demonstrate that rationally engineered polyproline helices can assemble in a divergent manner, into two types of nanoparticles. We also demonstrate that the primary sequence of the functionalised polyproline peptide is crucial to ensure a controlled assembly. This work clearly demonstrates that polyproline helices can be a powerful tool to achieve supramolecular assemblies of complex and responsive bioinspired nanomaterials.

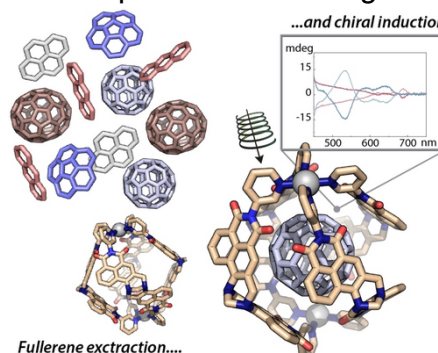


Congratulations to Eva Naughton, who published a manuscript recently in *Sustainable Chemistry*. This was a collaboration between researchers in UCD and University of Nottingham facilitated by the Biorbic CDT.

BiVO₄ based systems magnetron sputtered with silver nanoparticles for the artificial photosynthesis reaction. Eva Naughton, Emerson C. Kohlrausch, Jesum Alves Fernandes, James A Sullivan, [Sustainable Chemistry, 2025, 6, 4](#).

Congratulations to Cara Moloney (UCD, now University of Nottingham) for the publication of more of her in vivo work. "Magnetic chromatography improves colloidal and MRI attributes of magnetoliposomes enabling evaluation of the impact of size on biodistribution in an in vivo model of pancreatic cancer." Moloney et al., [Journal of Materials Chemistry B](#).

Congratulations to Helen on her recent joint first-author publication in *Angewandte Chemie International Edition*. This publication also marks her first as a corresponding author, "Chiral Pd₂L₄ Capsules from Readily Accessible Tröger's Base Ligands Inducing Circular Dichroism on Fullerenes C₆₀ and C₇₀" E. Benchimol, H. M. O'Connor,* B. Schmidt, N. Bogó, J. J. Holstein, J. I. Lovitt, S. Shanmugaraju, C. J. Stein,* T. Gunnlaugsson,* G. H. Clever*, [Angew. Chem. Int. Ed. 2024, e202421137](#).



Senpai Learn, the Education Group at UCD School of Chemistry led by Fun Man Fung, published several papers recently: [Chemical education in digital chemistry \(2024\)](#)

Fun Man Fung, Magdalena Lederbauer, Yvonne SL Choo, Timo Gehring, Kevin Maik Jablonka, Kjell Jorner, Philippe Schwaller, Michael B Sullivan, Andrea Volkamer, Matthew S Sigman, Kuangbiao Liao, Charles Windle

[https://www.cell.com/chem/abstract/S2451-9294\(24\)00536-9](https://www.cell.com/chem/abstract/S2451-9294(24)00536-9)

[Leveraging virtual reality to enhance laboratory safety and security inspection training](#) (2024)

Jun De Andrew Ng, Dao Wen Joel Swee, Fun Man Fung, Liting Clarissa Wong, Thian-Guan Peck

<https://www.degruyter.com/document/doi/10.1515/cti-2024-0085/html>

[Coaching in a Student Support Programme](#) (2024)

Bavani Divo, Fun Man Fung, Ramesh Shahdadpuri, Peng Cheng Wang, Eric Chern-Pin Chua

<https://www.taylorfrancis.com/chapters/edit/10.4324/9781003332176-16/coaching-student-support-programme-bavani-divo-fun-man-fung-ramesh-shahdadpuri-peng-cheng-wang-eric-chern-pin-chua>

Congratulations to Daniel and Eleanor who both had a first author paper published. *Role of Secondary Structure and Time-Dependent Binding on Disruption of Phthalocyanine Aggregates by Guanine-rich Nucleic Acids*, Eleanor. R Windle, Christopher C Rennie, Robert M. Edkins, Susan J. Quinn, *Chem. Eur. J.* **2024**, e202403095.

Study of the Photophysical Properties and the DNA Binding of Enantiopure $[\text{Cr}(\text{TMP})_2(\text{dppn})]^{3+}$ Complex, Daniel Graczyk, Rory A. Cowin, Dimitri Chekulaev, Maisie A. Haigh, Paul A. Scattergood, Susan J. Quinn, *Inorg. Chem.* **2024**, 63, 50, 23620–23629.

Congratulations to Diarmuid O'Hanlon for publishing his first paper in Chem. Commun. and passing his stage transfer exam in December - D. O'Hanlon, S. Davin, B. Glennon, M. Baumann. "Metal-free [2+ 2]-photocycloaddition of unactivated alkenes enabled by continuous flow processing." *Chem. Commun.* **2025**, 61, 1403-1406 ([DOI:10.1039/D4CC06000H](https://doi.org/10.1039/D4CC06000H)).

Well done to Aisling Loftus and Rosa de Gregorio from the Baumann group for publishing their joint project on generating alkynes from isoxazolones in flow mode in OBC - A. Loftus, R. De Gregorio, M. Baumann. "Continuous flow synthesis of alkynes from isoxazolones." *Org. Biomol. Chem.* **2025** ASAP ([DOI:10.1039/D4OB01772B](https://doi.org/10.1039/D4OB01772B)).

[Congratulations to Vivek for his recent feature in Synfacts with his work on Asymmetric Addition of Organozinc Reagents to Aldehydes.](#)

[Congratulations also to Balaji for his collaboration with Prof Kevin O' Connor, which was recently published in the Journal of Biotechnology.](#)

The Elghobashi-Meinhardt group is proud of ongoing collaborations with the University of Texas Southwestern medical Centre, in Dallas. Our latest joint research appeared this week in PNAS. "[Molecular basis of Spns1-mediated lysophospholipid transport from the lysosome](#)".

DATE FOR THE DIARY

10:00-1:00pm, 11th February 2025

Dignity and Respect for UCD LGBTQI+ Community

Cultivating Allyship for an Inclusive Campus

FYI EDI ...

Each month, we will highlight a UCD/School EDI policy or initiative to make sure that staff and students are aware of all the supports available.

The Core Meeting Hours policy aims to facilitate the embedding of core meeting hours across the University, as part of a range of actions to support a family-friendly working environment. Core meeting hours are defined as the hours between 9:30am and 4:00pm, Monday to Friday. They do not represent the working day, but rather are a subset of the working day. Meetings include all University, College and School level meetings, seminars, workshops etc. which employees are either required or invited to attend. They do not include timetabled teaching or assessment. Colleagues are asked to stick to organising meetings and events within these core hours.

****END****

