

October/November School News

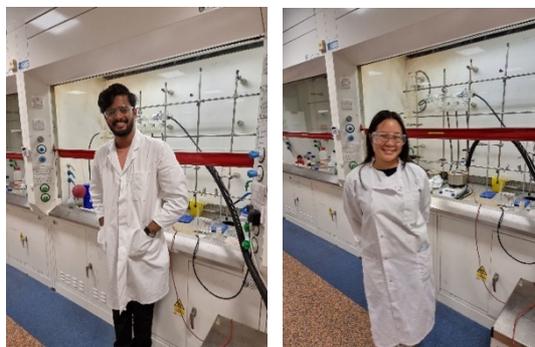
Welcome to...

The O'Reilly group are delighted to welcome Criag Chamney, who started his PhD following a degree in UCD. We wish him every success with his research.

The Baumann group are happy to welcome several new starters: Mark, Michael, Daniel, Cathal (4th years), Andrea and Sara (visiting students), Lee and Dylan (research MSc students) and Kathryn and Rana (postdocs) and wish them a successful stay in the group.

The McGarrigle group welcomes Dr Ramesh Golla, who was awarded an Irish Research Council Government of Ireland Postdoctoral Fellowship for a project involving the asymmetric synthesis of P-stereogenic compounds.

The Loh research group is excited to welcome Amal Tom Sebastian (PhD student) and stage 4 project student Kenza (both pictured) into the newly set up lab! Looking forward to interesting, sweet sugary chemistry from these young scientists!



Farewell to ...

In November, the Baumann group said farewell to Elena who returned to Bari to complete her PhD studies in the Luisi lab.

Some sad news...

Colleagues in the School were very saddened to hear of the death of Dervilla Donnelly, who was Professor Emerita of Phytochemistry, Member of the Royal Irish Academy, and who served as the first woman President of the Royal Dublin Society (1989-1992). Professor Donnelly was a friend, mentor and inspiration to many in our School and in the much wider scientific community. She was an exceptional leader, who made significant contributions to teaching and research. Her portrait hangs proudly at the entrance to Science South.

The Guiry group also wishes to express their condolences to the family of Professor Dervilla Donnelly. She was a remarkable person and a role model / mentor to so many people. May she rest in peace.



New Doctors in the house...

Congratulations to Dr Pallavi Dutta (Johnson group), Dr Shekemi Denuga (Johnson group), Dr Katie Donaghy (McGarrigle group), Dr Maria Byrne (Quinn group), Dr David Mc Laughlin (Morgan group), Dr Ioanna Bampouri (Buckin group) and Dr Arlene Bonner (Baumann group), for successfully defending their PhD thesis in October.





Congratulations to

Congratulations to Haode (Gavin) Chen who was awarded MSc degree by ACCE on 19/11/2024 for his thesis entitled "Towards the modification of the anomeric position of glycosyl thiols".

A warm congratulations to Marina Rubini and Robert Johnson, who were awarded a College of Science Teaching & Learning award. This is a wonderful acknowledgment of their commitment to excellence in teaching. Well done!

Well done to the Movember team, who have raised more than €2000 for Medical Aid for Palestinians. The fundraiser is ending this week but has been a massive success! If anyone wants to [donate](#) in the last week the link to the team is [here](#).

A huge congratulations to Sandhya from the Morgan group, who was awarded a fellowship from the IRC to fund her postdoctoral research for two years. Well done Sandhya! We wish you every success with your research.

Many congratulations to Grace Morgan for her 25 years Long Service Award, pictured below with President Orla Feely at the Awards Lunch.



Sandhya (Morgan group), who has been awarded an IRC postdoctoral fellowship. Grace pictured with Orla Feely, receiving her 25 years Long Service Award.

Congratulations to Leila for 2024 SEAI Research, Development and Demonstration (RDD) Funding Programme Award, proposal: CO₂ utilization to ethylene: Mechanistic insight into C-C coupling over core-shell nanostructured electrocatalysts.

Many congratulations to Eoghan McGarrigle, Marina Rubini and Leila Negahdar for securing research funding under the Research Ireland Frontiers for the Future programme.

James Sullivan and colleagues from Chemical and Bioprocess Engineering, Kaan Dereli, Roderick Jones, were successful in an application to SEAI - *Overcoming the Bottlenecks of Hydrogen-to-Biomethane Process for Renewable Energy Storage (FeNiX)*. The collaboration springs from a meeting at the STEM Challenge event in March 2022, where a round of STEM Challenge funding followed the event.

Chemists continue to represent UCD in Sport at the Dublin Intercollegiate Karate Competition, as Stage 4 student Faith Molloy won gold in Intermediate Female Individual Kata, Team Kumite, gold in Advanced Team Kata, and bronze in Intermediate Individual Kumite. UCD brought home the cup this year as best university, and Faith won the most gold medals in the UCD team. Well done Faith!! Faith is carrying out her Stage 4 project in the O'Reilly group and all group members are very proud of her amazing sporting achievements.



Research visits, talks and conferences and events

While most Stage 3 Chemists are irreversibly bound to the library seats, these four chemists have all managed to find time to take part in the science society committee. The science society is one of the largest and most active societies on campus and each of these students have played a pivotal role this year. Fiachra and Matthew have been hard at work organising CoFe mornings and various other activities as events officers. Alannah has also played an active role on the communications side of the committee as public relations officer and Jacob has been busy securing sponsorships for their various events, such as Scicle, as sponsorship officer. We would like to thank them for their hard work and it's great to see such strong chemistry representation in this amazing society! Picture: "from left to right: Stage 3 students - Fiachra Gallagher, Matthew Kane, Jacob Flynn and Alannah Fox"



Nadia Elghobashi-Meinhardt was proud to represent UCD Chemistry in October at the [11th meeting of the International Society of Theoretical Chemical Physics](#) (ISTCP) in Qingdao, China. She presented the latest research from the group, including progress on QM/MM calculations of nitrogenase, work of PhD student Ram Rajesh.



This November, Marianne, Amber and Niamh travelled to London to attend New Frontiers in Synthetic Chemistry 2024, hosted by The Royal Society of Chemistry and AstraZeneca. The event showcased cutting-edge research from both AstraZeneca and academia. The sessions were insightful and the event provided the space for many engaging discussions. Marianne was invited to speak at the event and presented the group's research on developing enzyme-triggered reactions, which led to exciting conversations during the evening's reception. As always, Marianne did the O'Reilly group proud! It was wonderful to hear about the incorporation of biocatalysis in many of AstraZeneca's upcoming projects!



Niamh also presented her work at the RSC's New Frontiers in Synthetic Chemistry conference in London. Well done Niamh!

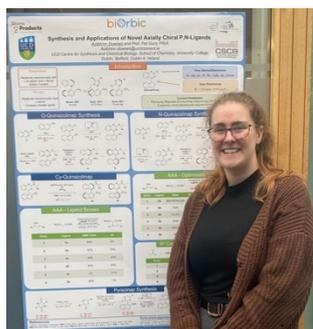
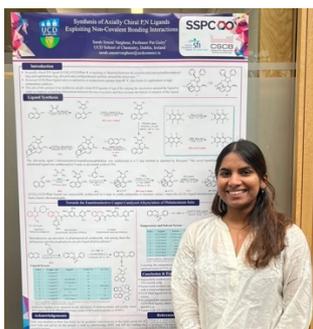


Dr. Rajan Choudhary gave plenary pitch presentation and parallel session talk at 5th European Sustainable Phosphorus Conference (ESPC5), 8-10 October 2024 at Lleida, Spain. He talked about the recent results on recovering phosphorus from sewage sludge incineration ashes, vivianite or other non-organic materials. This conference brings Industry representatives and researchers together to feature their progress in the field of phosphorus recycling. Rajan reports of intense Stakeholder networking and Industrial site visits (Fertibro, Bioenergia de Almenar).



Congratulations to Aoibhinn and Sarah for presenting posters as the 48th annual ICI Congress in ATU Sligo, and to Sarah for winning a poster prize (Pictured below)!

Pat recently travelled to London to give a lecture and award the 2024 Sir Derek Barton Gold Medal to Professor Paul Wender (pictured below).



PhD students Ram Rajesh and Smit Patel, from the Elghobashi-Meinhardt group, are scheduled to complete their STAs in December. Good luck to them and all postgrads who are making this important step! Exciting times ahead.

Christmas has arrived in the School of Chemistry!!! Thanks to Reid, Shekemi and Olivia for putting up the School's Christmas tree. We have a tradition of getting our tree up in the last week of the Autumn trimester. Kristy, Helen and Ioanna are making things extra festive with their ChemistsTree in the 2nd floor teaching lab.



Which set the scene very nicely for the end of trimester festive celebrations, where staff and students got together for tasty treats.





ChemSoc News

It has been a wonderful year so far with the UCD Chemical Society.

We had our first pub quiz of the year on the 3rd of October in the Clubhouse in aid of the Simon Community where we raised over €200 euro. Congratulations to lab A3.01 (Girls just OANA have fun!) on winning that night. Also congratulations to the runners up Phosphorizz.



We had a very successful Careers night on the 15th of October with all speakers being current UCD student and staff or alumni. It was a very personal event, and discussed how we develop into a career, rather than needing to have it all figured out. Thanks to all our speakers.



Our Annual Halloween party, hosted on the 29th of October in the clubhouse, was a huge success with many brilliant comments. The Committees group costume may hint

at this year's management style. Congratulation to Aaron on the best individual costume, and congratulations to the Lego people on the best group costume.



Our Movember Bakesale was a fantastic success for our boys in the department raising funds for medical aid in Palestine. We raised over €400 on the day. Thanks for our Mystery Judge Eoghan McGarrigle, the bake sale judging talents are flourishing. Congratulations to Wanyujin on winning the Eoghan McGarrigle Best Baker award (very refined award, definitely CV worthy).



Finally we had our Christmas Lecture and Dinner last Thursday. It was a fantastic Lecture by Anita Maguire entitled “*Adventures in research in synthetic organic chemistry : balancing research design and serendipity*”. It was a fun and important lesson on not throwing away a reaction cause it’s not the right product and with a little bit of work you may find new chemistry unfold from the weirdest of places. Pi also has upped its game and provided a wonderful dinner for all there on the night. We had a raffle on the night in aid of Barnardo’s where we raised over €200. A big thank you to all our prize sponsors.

ChemSoc thank all in the School for their support so far this year. It has been a huge help for the committee to have such strong support and they look forward to this continuing into 2025. A special thanks to Susan, Elaine and Deidre for all the help. A big thanks to Paul Evans as our senior treasurer, always a big help keeping us in line. From all in ChemSoc we wish you a very happy Holiday Season and hope you have a wonderful year in 2025 where more ChemSoc events will brighten your year.
Gawain Boyce - UCD Chemical Society President.





Publications from staff and students in the School

A new paper by Zoe Beato et al was recently published in JOC. It reports a mild and effective method for the synthesis of aryl thioglycosides, in which a range of beta- and alpha-thioglycosides were synthesised under nickel-catalysed surfactant-mediated aqueous conditions. "Mild and Effective Method for the Nickel-Catalysed Arylation of Glycosyl Thiols in Aqueous Surfactant Solution", Zoe Beato, Sally Howard Ihle, and Xiangming Zhu, *J. Org. Chem.* 2024, <https://doi.org/10.1021/acs.joc.4c02233>

Congratulations to Eva from the Sullivan group, who had her work published recently. Influence of the presence of RuO₂ on the reactivity of Fe₂O₃ in the Artificial Photosynthesis reaction. Eva Naughton, James A. Sullivan, *Sustainable Chemistry for the Environment* (2024), <https://doi.org/10.1016/j.scenv.2024.100167>

Congratulations to Fahad and co-authors on their recent paper, *Synthesis of the cis- and trans-3-Fluoro Analogues of Febrifugine and Halofuginone*
Fahad Alkhathami, Lee Yang Chieng, Yannick Ortin, Marina Rubini, Paul Evans
Eur. J. Org. Chem. 2024, e202400886.

Senpai Learn, the Education Group at UCD School of Chemistry led by Fun Man Fung, published several papers recently.
Fun Man Fung, Silvija Markic, Rachel Mamlok-Naaman, Mark Cesa and Mei-Hung Chiu. "Analyzing the existing programs on promoting women scientists in chemistry"
Chemistry Teacher International (2024). <https://doi.org/10.1515/cti-2024-0076>

Jia Yi Han and Fun Man Fung. "Spatial reality in education – approaches from innovation experiences in Singapore" *Chemistry Teacher International*, (2024). <https://doi.org/10.1515/cti-2024-0088>

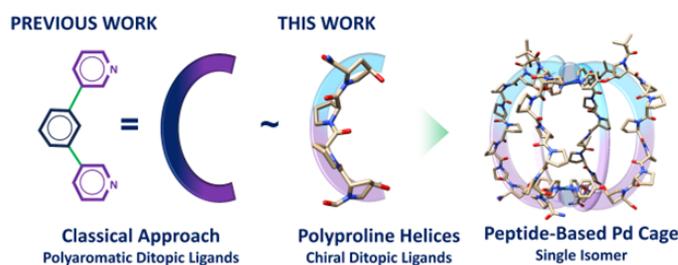
Yvonne SL Choo, Jacek L Kolanowski, Jovana V Milić, Fun Man Fung* The Retrosynthesis Mindset: A Problem-Solving Tool. *Synlett* (2024) <https://www.thieme-connect.de/products/ejournals/abstract/10.1055/s-0043-1775406>

In addition, having been the recipient of the 2024 Thieme Chemistry Journals Award, Fun Man was recently featured at an interview by Synform, Thieme Chemistry. You can read more about him and his research agenda and mentorship journey.

<https://www.thieme.de/en/thieme-chemistry/synform-interview-with-fun-man-fung-176041.htm>



Congratulation to the Aniello Palma, Jimmy Muldoon, Patricia Fleming and Yannick Ortin on their recent publication in ChemistryEurope entitled "[Applying Metallo-Organic Ligand Design Principles to the Stereoselective Synthesis of a Peptide-Based Pd2L4X4 Cage](#)" (TOC below). In this work we demonstrate that the design principles used for the synthesis of classical metallo-organic ligands can be 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.

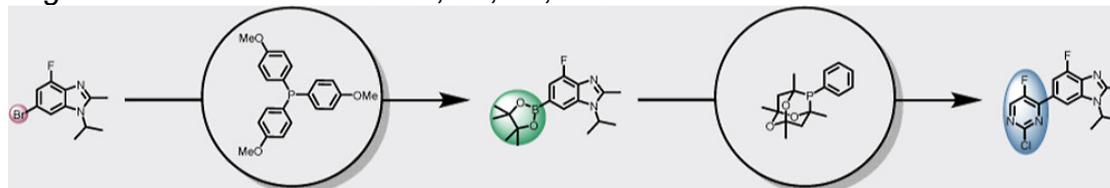


Recent publications from the Guiry group:

Optimized Synthesis of an Abemaciclib Intermediate: Improved Conditions for a Miyaura Borylation/Suzuki Coupling Process

M.P. Carroll, A. Hickey, A. Rogers, C.J. Niland, R.A. O'Sullivan, N. Muniraj, K.F. O'Sullivan, P.J. Guiry, M.M. Murray

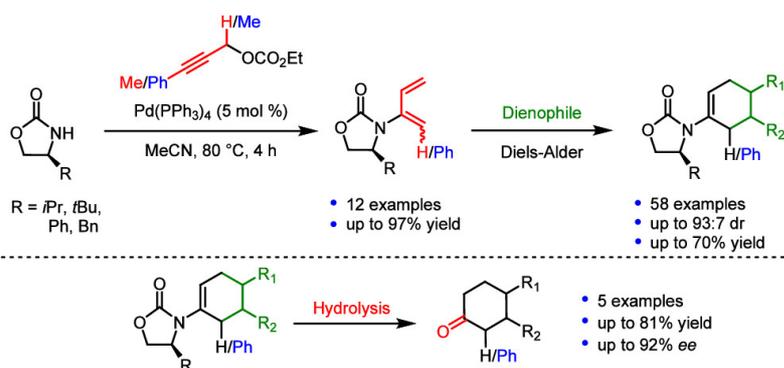
Org. Process. Res. Dev. 2024, 28, 11, 4127-4136



Synthesis and Application of Chiral 2-Amido and 1-Phenyl-2-amido Dienes in Diels-Alder Reactions to Access Chiral Cyclic Ketones

A. O' Connor, C.Q. O'Broin, J. Bruno-Colmenarez, P.J. Guiry

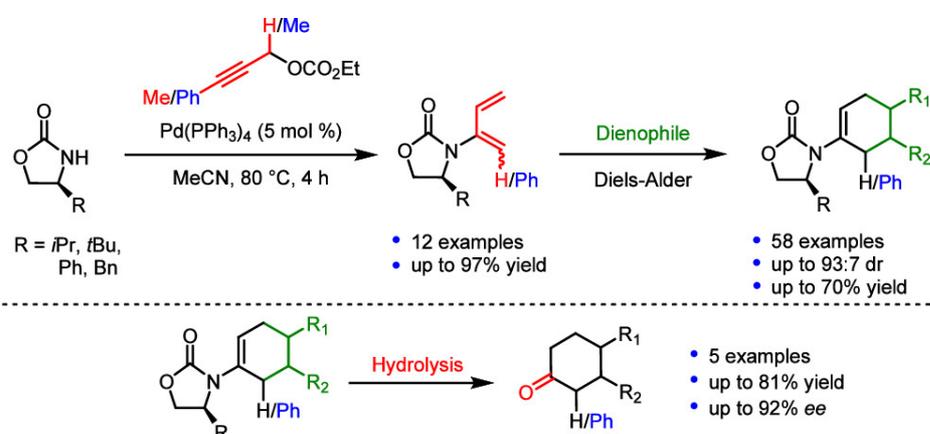
J. Org. Chem. 2024, 89, 22, 16325-16339



Enantioselective Organozinc Addition to Aldehydes Using Planar Chiral [2.2]Paracyclophane-Imidazoline N,O-ligands

S.V. Kumar, P.J. Guiry

Chem. Eur. J. 2024, e202403345



Huge congratulations to Baumann group members - Davin Cronly, Ruairi Crawford, Arlene Bonner, Ruairi Bannon, Federica Minuto and Ilenia Alfano on their published work over the last few months!

“Structurally Diverse Nitrogen-rich Scaffolds via Continuous Photo-Click Reactions.” D. Cronly, M. Smyth, T. S. Moody, S. Wharry, J. Bruno-Colmenarez, B. Twamley, M. Baumann *Org. Lett.* **2024** ASAP. [Structurally Diverse Nitrogen-Rich Scaffolds via Continuous Photo-Click Reactions | Organic Letters](#)

“Direct Photochemical Synthesis of Substituted Benzo[b]fluorenes.” R. Crawford, Y. Ortin, B. Twamley, M. Baumann *Org. Lett.* **2024** ASAP. [Direct Photochemical Synthesis of Substituted Benzo\[b\]fluorenes | Organic Letters](#)

“Continuous flow synthesis of the antiviral drug tecovirimat and related sp³-rich scaffolds.” A. Bonner, M. Baumann *Org. Biomol. Chem.* **2024**, 22, 8323. [Continuous flow synthesis of the antiviral drug tecovirimat and related sp³-rich scaffolds - Organic & Biomolecular Chemistry \(RSC Publishing\)](#)

“Expedited access to β -lactams via a telescoped three-component Staudinger reaction in flow.” F. Minuto, A. Basso, M. Baumann *J. Flow.*

Chem. **2024** ASAP. [Expedited access to \$\beta\$ -lactams via a telescoped three-component Staudinger reaction in flow | Journal of Flow Chemistry](#)

“Continuous Flow Approach for Benzylic Photo-oxidations Using Compressed Air.” R. Bannon, G. Morrison, M. Smyth, T. S. Moody, S. Wharry, P. M. C. Roth, G. Gauron, M. Baumann *Org. Process Res. Dev.* **2024**, 28, 3307-3312. [Continuous Flow Approach for Benzylic Photo-oxidations Using Compressed Air | Organic Process Research & Development](#)

“Multiphase photochemistry in flow mode via an integrated continuous stirred tank reactor (CSTR) approach.” A. I. Alfano, M. Smyth, S. Wharry, T. S. Moody, M. Nuno, C. Butters, M. Baumann *Chem. Commun.* **2024**, 60, 7037-7040. [Multiphase photochemistry in flow mode via an integrated continuous stirred tank reactor \(CSTR\) approach - Chemical Communications \(RSC Publishing\)](#)

Congratulations to the Loh research group on their recent publications regarding the emerging field of radical catalytic site-selective carbohydrate functionalizations in *Angewandte Chemie and Science Bulletin!*

Enantioconvergent and Site-Selective Etherification of Carbohydrate Polyols through Chiral Copper Radical Catalysis

<https://onlinelibrary.wiley.com/doi/10.1002/anie.202409530>

Merging radical catalysis and noncovalent stereocontrol concepts to forge native O-glycosidic linkages

<https://www.sciencedirect.com/science/article/pii/S2095927324006285?via%3Dihub>

Opportunities

The College of Science Seed Funding is open for applications, with a deadline of January 27th. There are two streams of funding; 1) Career Development and 2) Dissemination and Outputs. All staff and graduate students who are engaged in research should consider applying to one of these streams, which could support short projects, research visits, conference presentations, conference organisation etc. See details on RMS.

Finally, [Dr Fun Man Fung](#) is recruiting for Stage 4 Projects, Masters students, PhD students and postdocs starting in the Summer/Fall of 2025. Please reach out to him if your research interests overlap with Senpai Learn.

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.

Did you know that students, staff and visitors to UCD can now report issues of a Dignity & Respect nature anonymously through the [UCD Report and Support](#) tool. This is an important new initiative that provides the opportunity for members of the University community and others to make the University aware of incidents of bullying, harassment and sexual harassment that have been experienced or witnessed, without the need to identify oneself or disclose sensitive and personal details. It is not just a tool for reporting incidents – the D&R team provide guidance and support to deal with all issues. Please [reach out](#) to them if you need support or advice.

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