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Pharmaceutical Manufacturing Forum—4th October 2023

On October 4th, our attention was fully engaged at the Pharmaceutical Manufacturing Forum, hosted by the PharmaSEL UKRI Prosperity Partnership. The primary aim was to delve into the dynamic landscape of emerging opportunities and challenges in pharmaceutical manufacturing and collaboratively address these issues.



Participants had the invaluable chance to engage with experts spanning the industrial, governmental, and academic sectors, fostering insightful conversations and offering diverse perspectives. Our discussions covered cutting-edge technological processes and advanced experimental protocols, blending them with tools and models derived from computational research.

This event welcomed researchers across various career stages, including PhD students and postdocs, providing them a platform to showcase their work in pharmaceutical production. The spotlight was not only on sharing research but also on celebrating successes and remarkable achievements.

What made the occasion truly special was the interactive environment that facilitated the exchange of expertise and mutual learning among participants. This once again underscored the profound impact of collaboration and collective effort on scientific and technological progress. Beyond the academic insights, the event was characterised by moments of enjoyment, proving that a collaborative spirit can be both professionally enriching and personally gratifying.



In reflection, this was a distinctive and memorable event, highlighting the significance of teamwork and shared dedication in advancing knowledge within the field of pharmaceutical manufacturing. No need to say more – it was a one-of-a-kind experience that blended work and enjoyment.

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Recognition at the IChemE Global Awards—30th November 2023

We are thrilled to share the exciting news that our Prosperity Partnership has earned a spot as a finalist in the Pharmaceuticals category for the IChemE Global Awards 2023. Heartfelt congratulations to each and every one of us for our dedication and hard work, which have paved the way for this well-deserved recognition! The moment of truth awaits, as the winners of the Global Awards will be unveiled on the evening of November 30th in Birmingham. You can find the official announcement on the IChemE website.



As your diligent co-editors-in-chief, we are eagerly participating in the IChemE Global Awards dinner, where we hope to bring back even more sensational news for the next issue of the newsletter. Fingers crossed for continued success!

Researcher spotlight: Max Mowbray, WP5

Max completed his Chemical Engineering MEng at The University of Birmingham in 2019. His research project focused on the development of diagnostic technologies for monitor of traumatic brain injury. In parallel to this, Max helped cofound a student society, The Birmingham Energy Society (BES). BES focused on engaging the student body with drivers for transformation within the energy and industrial sectors, as well as with research on-going at Birmingham.



These diverse experiences gave Max an appreciation for systems thinking, which led him to pursue a PhD at The University of Manchester, under the supervision of Dr. Dongda Zhang and Prof. Robin Smith (Manchester), and co-supervision of Dr. Antonio Del Rio Chanona (Imperial College London). In Manchester, he focused on the integration of Machine Learning for decision-making within Chemical Engineering. Most of this focus was directed towards operational problems, for example control, scheduling and supply chain management; but he also collaborated on the development of modelling frameworks for soft-sensing, dynamic model construction, and predictive maintenance. He was fortunate to collaborate with industrial process engineers and data scientists from Unilever and Solvay and was awarded the Malcolm McIver Prize (2022) by The Centre for Process Analytics and Control Technology for these efforts. He was also awarded the President's Distinguished Achievement Award for Postgraduate Researcher of The Year (2023) for contributions made throughout the course of his PhD.

Alongside his academic pursuits in Manchester, he also engaged with the Royal Society of Chemistry, Manchester and District Local Section, through his role as Early Career Network representative. Through this role he organized events for early career professionals working locally within the chemical sciences, the highlight of which was a lecture series focusing on academic and industrial developments within the area. The series is freely available on YouTube and has received over 1000 engagements.

Max recently joined The Sargent Centre for Process Systems Engineering, after completing an Engineering and Physical Sciences Research Council (EPSRC) Doctoral Prize Fellowship in Manchester. He will be working under the supervision of Prof. Benoit Chachuat, Prof. Cleo Kontoravdi, and Prof. Nilay Shah on design space characterization and optimization as part of work package 5. In the future, Max hopes to pursue a career within academia focusing further on the development of computational decision tools for efficient design and operation of chemical process systems.

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EDI survey for our Prosperity Partnership

In the PharmaSEL/Prosperity Programme, we are dedicated to showcasing a robust commitment to Equality, Diversity, and Inclusion (EDI) and nurturing an inclusive working environment. The recently released Inclusive Cultures in Engineering Report 2023 by RAEng indicates progress in our field but also acknowledges that there is room for improvement.



To gauge the extent of inclusivity within the PharmaSEL-Prosperity programme and to gather insights on areas for enhancement, we have reached out to you for assistance. Your input is crucial in helping us better understand our current standing and in soliciting valuable advice on how we can further improve.

A brief survey has been prepared, and we express our gratitude to all who took the time to complete it. Angela is overseeing the collection of responses, ensuring confidentiality. A summary of the survey findings will be shared with you, emphasising our commitment to transparency and continuous improvement. Your participation is instrumental in shaping a more inclusive future within our program.

Responsible Research and Innovation training

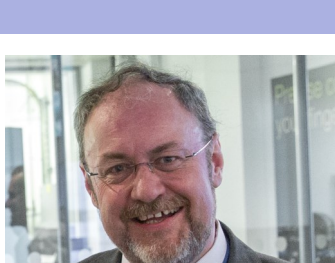
As a component of PharmaSEL-Prosperity's educational initiatives for researchers involved in the project, a one-day in-person course on Responsible Research and Innovation has been organised. This course is designed to enhance the collective understanding of responsible innovation within the context of our research efforts.



The course aims to encourage researchers and innovators to adopt a broader perspective, considering the overarching impact of their work and its societal value in the long term. The specific date for the course is yet to be confirmed.

We are partnering with an external provider, ORBIT, who will facilitate the course at Imperial. Your participation in this course fosters a culture of responsible and impactful research within our PharmaSEL-Prosperity community.

Awards



Daryl Williams

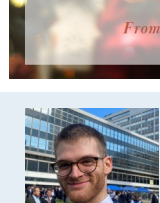
Has been elected a Fellow of the Royal Academy of Engineering for his expertise in particle engineering and development of scientific methods for the moisture sensitivity of powders, as well as being an academic lead for the Imperial College Chemical Engineering department.

Last but not least: Christmas Party

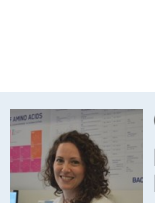


As we approach December, the anticipation for our Christmas celebration is building, and we would not want anyone to miss out on the festive cheer! We extend a warm invitation to all to join us for an enjoyable time together.

Expect a delightful evening filled with good food, refreshing drinks, and plenty of fun. Save the date! Our Christmas party is scheduled for **December 11th at 5:15 pm at the Imperial Chemical Engineering Departmental Common Room**. We look forward to sharing the joy of the season with you!



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