

EPSRC Centre for Innovative Manufacturing in Continuous Manufacturing and Crystallisation

The Centre's collaborative programme is delivered by a multidisciplinary academic team that involves colleagues at the Universities of Bath, Cambridge, Edinburgh, Glasgow, Heriot-Watt, Loughborough and Strathclyde. The shared vision, scope and programme for the National Centre have been developed through close collaboration with industry and in particular our Tier 1 strategic partners AstraZeneca, Bayer, GSK and Novartis who continue to provide significant input and support. Together the Centre partners have a shared long-term vision: to enable a step change from the current batch manufacturing paradigm to fully continuous manufacturing processes, systems and plants for the production of high-value chemical products to higher levels of quality, at a lower cost, more quickly and in a more sustainable manner.

Academics

Professor Alastair Florence
Dr Andrew Alexander
Professor Gavin Halbert
Professor Joop Ter Horst
Dr Blair Johnston
Dr Dimitrios Lamprou
Professor Zoltan Nagy
Professor Xiong-Wei Ni
Dr Alison Nordon
Professor Colin Pulham
Professor Chris Rielly
Professor Jan Sefcik
Professor Chick Wilson

Recruitment

The DTC is now offering a world-class post-graduate research degree programme with up to 10 four year studentships starting in 2015 across the partner institutions.

The multidisciplinary programme offers a dynamic and exciting training programme to equip students with the necessary skills to tackle a range of research challenges across all of the thematic areas. Further details on the projects available for 2015 will be posted on www.cmac.ac.uk/DTC from March 2015.

Entry Requirements

Applications are welcomed from UK/EU students with, or expecting to obtain a first class or upper second class honours degree in relevant disciplines of Science and Engineering including Pharmaceutical Science, Chemistry, Chemical Engineering, Mechanical Engineering, Physics and other related disciplines

Funding

Fully funded studentships including university fees and an annual stipend allowance of £14,057 are available for UK and EU students who meet with EPSRC funding eligibility criteria.

How to Apply

For more details on how to apply, or to find out more about the programme and opportunities, please visit our website (www.cmac.ac.uk/DTC)

Contact

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www.cmac.ac.uk



EPSRC

Doctoral Training Centre
in Continuous Manufacturing and Crystallisation



PhD in Continuous Manufacturing and Crystallisation

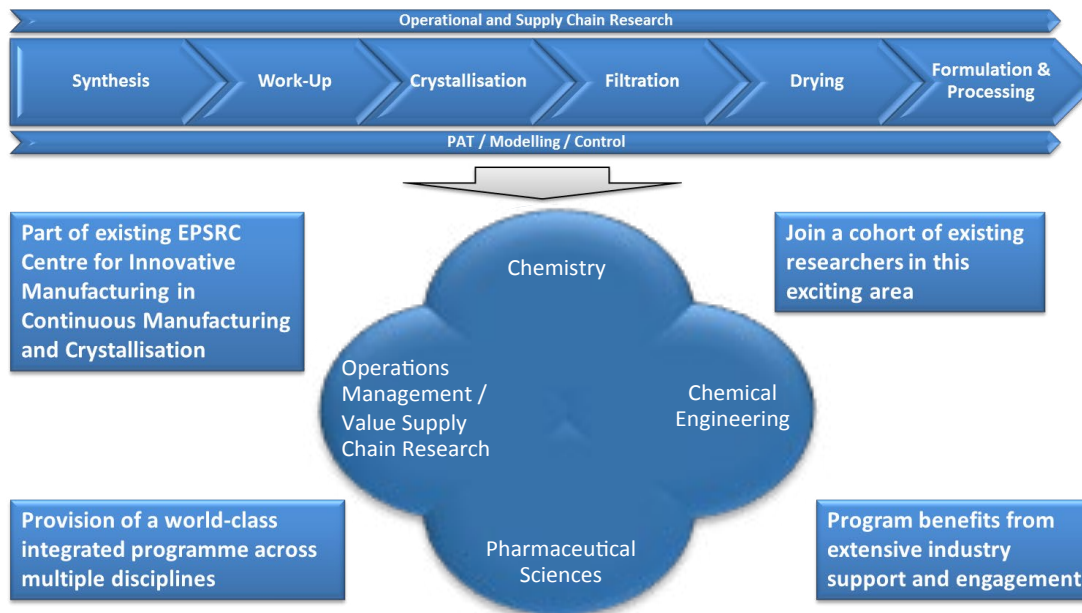


DTC in Continuous Manufacturing and Crystallisation

This unique training programme provides an opportunity to gain world leading experience in the area of manufacturing of pharmaceuticals. The PhD projects are embedded within the National EPSRC Centre for Innovative Manufacturing in Continuous Manufacturing and Crystallisation, a globally recognised institution.

The vision is for our graduates to meet the industrial demand for highly skilled research talent to accelerate the adoption of continuous manufacturing for the production of high-value chemical particulate products. Candidates will benefit from a cutting-edge, four-year post-graduate research degree programme and will emerge as PhD graduates with an international reputation for excellence in research to develop pioneering continuous manufacturing processes for the pharmaceutical and fine chemicals industries.

Training will be delivered by a multidisciplinary team of leading UK academics. Alongside the excellent training opportunities, doctoral students will work with industry mentors throughout their research projects gaining invaluable experience and insights.



Themes and Projects

The DTC four year PhD programme combines dynamic, multi-disciplinary training with pioneering research projects spanning the breadth of the Centre's research scope. Project areas include:

- continuous crystallisation control and control of size, shape, structure and performance
- particle engineering: delivering the required particle attributes for different processes and applications
- process analytical technologies for continuous manufacturing processes,
- continuous secondary processing including drying, blending and granulation
- continuous manufacture of formulated products including tablets
- process modelling and control

Students will benefit from support from internationally leading supervisors and expert industrial practitioners and opinion leaders.

World Class Facilities

In June 2013 CMAC was awarded a £34.2m funding boost from the Higher Education Funding Council for England (HEFCE) under the UK Research Partnership Investment Fund (UKRPIF). As a result in 2015 CMAC is moving to the new Technology and Innovation Centre (TIC) at University of Strathclyde which will house the National Facility for Continuous Manufacturing & Crystallisation Research for Pharmaceutical Products. This will accommodate the process development lab, X-ray suite and TOF-SIMS lab. The Lab will act as a physical hub for the National Centre and house world-class capabilities for crystallisation, process development, materials characterisation, secondary processing and analysis. The awarded funding will be used to establish these world class facilities. Importantly it will allow us to co-locate multi-disciplinary teams of PhDs, PDRAs and academics and specifically industrial researchers across the Centres' projects.

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The CMAC DTC is an excellent program across all the partner universities and promotes a multi-disciplinary approach. GSK, AstraZeneca, Novartis and the other industrial partners are delighted to support the DTC and are committed to providing opportunities for students to develop their skills and experiences. High quality staff with a broad skill set are essential to accelerate the adoption of continuous technologies in the industrial environment, transforming future supply chains.”

Dr Clive Badman, OBE. GSK

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Being part of the CMAC Doctoral Training Centre has been a great experience. It brings the opportunity to expand knowledge and expertise and at the same time meet and collaborate with academics from several well-known Universities across the United Kingdom.”

Laura Martinez-Marcos
Current DTC Student at Strathclyde

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As a student in the CMAC DTC I found the breadth of exposure to different disciplines invaluable, as well as the opportunity to engage with industry. It is great to be part of a cohort and as we are based at 7 different institutions there were plenty of opportunities to travel and spend free time exploring different cities around the country.”

Anneke Klapwijk
Current DTC Student at Bath