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Point of care medical and pharmaceutical 3D printing

Prof. Sheng Qi

(School of Pharmacy, University of East Anglia, Norwich UK)

10 July 2023 | 16:00

Room Pedefferri, Building 6
Piazza Leonardo da Vinci, 32 Milano

live | online

link will be emailed to registered
participants

[Registration Form](#)

More info: www.cmic.polimi.it

3D printing has been rapidly adopted by both medical and pharmaceutical fields. In this talk, SQ will discuss her research group's key findings and experience on working closely with their regional hospitals to develop and implement point of care 3D printing for both medical and pharmaceutical applications. SQ will use case studies to present the potential and challenges of setting up and adopting 3D printing for medical applications within hospital settings. She will also discuss the use of 3D printing for point of care personalised medicine manufacturing. She will focus on the use of a range of extrusion-based 3D printing technologies to produce solid dosage forms and the challenges they face moving forward into clinical use. A thorough discussion of the factors affecting printing performance and the key quality attributes of the finished product will be presented. Strategies to overcome the processability limitations of regulatory approved pharmaceutical materials will be discussed.

Sheng is a Professor of Pharmaceutical Material Science and Technology at the School of Pharmacy of the University of East Anglia. Sheng has great interests in material science and processing, and passion in innovation. By working closely with industrial partners as well as cross-discipline collaborators, her research has contributed to product development and innovations in many industrial sectors, from pharmaceutical, medical device to food, cosmetic, agri-tech and sustainable packaging. She founded the UEA Health and Social partner (UEAHSCP) [Point of Care 3D Printing Research Group](#) to allow the scientists from UEA and other academic collaborators to work closely with clinicians, pharmacists, and patients in Norfolk and Suffolk to identify and develop efficient and cost-effective uses of 3D printing in acute hospital environments. She runs a dynamic research group with most projects co-created and developed with relevant industrial partners/collaborators to address real-world clinically unmet needs. She is keen to develop young and early career researchers and provide them with as many opportunities as possible to not only conduct highest level of scientific research, but also equip them with knowledge and capability for technology transfer. Her current research interests include:

- Solid dispersions for solubility enhancement and amorphous pharmaceuticals
- Drug eluting medical devices
- Pharmaceutical 3D and 4D printing
- Additive manufacturing process development for medicine manufacturing and device coating