Position Title	PhD Studentship - Additive manufacturing approach to particle engineering for drug delivery
Project Abstract	Making patients breathe easier: an additive manufacturing approach to particle engineering for inhaled drug delivery applications. With the FDA approval of Spritam® in 2015, the first 3D printed tablet, a new era for pharmaceutical manufacturing is emerging. The utility of 3D PRINT/additive manufacturing approaches in tissue engineering is well established and its potential to revolutionise pharmaceutical product manufacturing is now emerging. 3D PRINT offers pharmaceutical developers and manufacturers a range of potential benefits including; i) the ability to create complex pharmaceutical products ii) personalised patient dosing e.g. paediatric & geriatric populations, iii) creation of combination drug products iv) manufacturing at the point-of-care and v) rapid prototyping of new drug products. This project seeks to build on the expertise of Prof. Cryan's DRug Delivery and Advanced Materials (DReAM) team within RCSI TERG in drug product development and combines this with AMBER's state-of-the-art Additive Research Laboratory to develop innovative drug product prototypes. Specifically in this PhD project the focus will be on the development of additive manufacturing approaches to particle engineering for inhaled products. Respiratory diseases are among the leading causes of morbidity and mortality worldwide.
Experience	The PhD position is funded for 4 years, including a monthly stipend and materials and travel budget. Applicants should hold a minimum of an honours bachelor's degree at 2:1 level or equivalent in a relevant subject such as Pharmacy/Biomedical Science. Candidates should also have a strong interest in additive manufacture/polymers/drug delivery.
Funding	The studentship will cover fees up to €5,500 pa and a stipend of €18,500 pa
Location	RCSI
Closing Date	Friday 29th June 2018
For more information contact	Prof. SA Cryan; scryan@rcsi.com

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