

Aerosol Technology 2015

Tampere, Finland

June 15th – 17th 2015

The Aerosol Technology meetings are amongst the premier meetings in the aerosol science research community calendar. They are large and prestigious international meetings that attract the biggest names from a huge range of aerosol-related research disciplines. As such they offer an unparalleled opportunity to learn about cutting-edge science, and also to network with leading international groups.

A project established during my Ph.D. was triggered through a Medical Technologies Collaborative (MTC) scheme with Yale University and University College London. The knowledge transfer from my visit to Yale and additionally results obtained from UCL enabled me to present my novel findings at Aerosol Technology this year.

My talk was entitled '*Electrospray Synthesis of PLGA TIPS-Microspheres*' that discusses a cost-effective approach to micro-manufacturing highly porous particles using a tailored liquid nitrogen scheme. The work presented focused on the controlled manufacturing of polymeric microspheres using electrospray-atomization combined with a novel thermally induced phase separation process (TIPS) followed by subsequent lyophilisation. Lyophilisation is an established robust method for the formulation of biological products, and an invaluable tool for prolonging shelf life and stability for biological drugs and vaccines. The global market for lyophilisation is projected to be worth \$5.125 billion in 2019, spurred by the strong growth of new drug-carriers and efforts to increase clinical approval. My findings and talk was well received by attendees of the session and several speakers expressed interest in learning more about the techniques I use to synthesize these micro-vehicles for controlled release applications.

With great thanks to the UK Aerosol Society, I was able to present my research at an international meeting. It boosted my confidence, research experience and credibility as a researcher in the field of electrospray technology. Additionally it enabled me to network with like-minded academics and experts from industry and retrofit some of the techniques I learned at the conference and to apply these to my doctoral research at UCL. Apart from my presence at the conference, I also took the opportunity to explore Tampere, meet with the friendly locals and explore the city.

Finally, I would like to thank The Aerosol Society (UK) for being one of the recipients of the 'Early Career Scientist Travel Award' and supporting my attendance at Aerosol Technology 2015. I hope that other young academics are inspired to apply for such awards and hope that I can be one of the many current ambassadors for the society.

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