

# 2<sup>ND</sup> INTERNATIONAL MICROFLUIDICS CONGRESS

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## Microfluidics for particle generation: From a nanoparticle to a millimetre, from a milligram to a ton

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Microfluidics offers a way to generate consistent, monodisperse particles in a wide range of materials. Almost any type of particle can be produced by these methods: from liposomes to multiple emulsions; from hydrogels to polymers. However, these methods have generally been limited to low throughput, and been more suited to lab-scale development work. Dolomite Microfluidics

is addressing this limitation by focusing on higher throughput techniques and highly parallel approaches. We have developed new microfluidic methods and real time quality control tools, and we can now cover the range from a lab-scale development tool to ton-scale production-scale systems. This talk will explain our approach and give examples from a range of application areas.

### Biography

Richard Gray is a founder and director of Blacktrace, the group which includes two leading microfluidics companies - Dolomite and Syrris. He is responsible for US operations, and also Head of Sales for Dolomite Bio, a new group focusing on microfluidics products for biologists. An engineer by training, he graduated from Cambridge University and has worked in research and product development in aerospace, consumer products, healthcare and automated drug discovery. He founded Syrris Ltd with Mark Gilligan in 2001, moving to the USA in 2004 to manage the Group's US subsidiaries. His background includes fast-track product and process development in consumer, medical device and industrial sectors. He is the former General Manager in Mettler Toledo's Automated Chemistry Group, starting up and leading a 50-strong team in design and manufacturing of automated drug synthesis equipment. He worked in technical consulting at The Technology Partnership and PA Technology, and in helicopter rotor design at Westland Helicopters. He has completed MA in Engineering from Cambridge University and a Diploma in Management Studies.

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