



LC|GC
north america

Emerging Leader in Chromatography

FINALIST

Darren Lewis

In 2003, Darren Lewis received his Ph.D. in Analytical Chemistry from the University of Alberta, Edmonton, AB, Canada.

Darren Lewis is currently a Science and Technology Development Manager at IDEX Health & Science.

His work at Upchurch/IDEX has focused on extremely high accuracy nanoscale fluidics, which has played a vital role in the development of high-throughput proteomics technology. In particular, his development of ultra-high precision splitless nano-gradient liquid chromatography has played an enabling role in modern proteomics technology. He has:

- Designed an MS front-end system that allows for automation and control of MS setup and tuning. Now in worldwide use by a leading LC-MS company.
- Designed a nano-ESI fluid control system for applying mass calibration standard to a reference sprayer. Now in worldwide use by a leading LC-MS company.
- Designed a modest pressure (10,000 PSI) splitless chromatography system for proteomic analysis using flow feedback. Instrument is in final commercialization stages at prominent LC manufacturer.
- Designed an ultra-precise fluidic control system and the related methods for creating aqueous DNA droplets in microfluidic oil streams. This technology is the heart of a commercialized DNA preparation system to support next-generation sequencers.
- Designed an integrated pump system for prominent LC-MS manufacturer to support novel ion sources. Currently at final commercialization stage.

As a student, Darren Lewis played an important role in the development of several high-throughput DNA sequencers, which were commercialized and played a fundamental role in the human genome project. In his current position, Darren has played an important role in the development of ultra-precise fluidics systems that have played a fundamental role in high-throughput proteomics instrumentation and in next-generation DNA

sequencing. In all these cases, Darren has been at the forefront of technology development that has enabled high-throughput systems biology.