

Curriculum Vitae.

Dr. Andrew S Wells BSc, PhD.

I am a specialist and expert in the field of chemical process R&D where, over the past 30 years, I have spent most of my professional career employed at three multi-national pharmaceutical companies, rising to the rank of Senior Principal Scientist (Director Level) at AstraZeneca. I have experience across all aspects of the pharmaceutical lifecycle, especially R&D, synthesis, green chemistry and material supply at all scales from discovery chemistry through to validation, manufacture and life cycle management. A major focus over the past 20 years has been the application of homo/hetero-metal catalysis, biotransformations /biotechnology and green chemistry solutions in the tactical and strategic manufacture of pharmaceuticals, agrochemicals and fine chemicals. My career has spanned across a broad range of scientific disciplines, and I am a keen exponent of working at the interface of the physical and biological sciences to champion the adoption of novel, more sustainable technologies across a range of business areas.

I currently work as a project partner in a number of consortia – both business-business and business academia, and as a consultant to a range of businesses including small biotech companies, fast moving consumer goods (FMCG) , multi-national pharma companies and agrochemicals companies. I also work with universities looking at accessing grant funding and commercialisation of novel sustainable manufacturing technology. I have extensive networks in the pharmaceutical/synthesis/industrial biotechnology /biocatalysis communities and can work with a number of specialist technology companies and SME's to deliver projects for clients.

Key Skills and Interest Areas

- Process scale-up of complex multi-step c-GMP synthesis, technical transfer and trouble shooting.
- New route analysis and selection for pharmaceuticals and agrochemicals.
- Synthetic organic chemistry, route evaluation and selection.
- Solvents and solvent selection.
- Homo-and heterogeneous metal catalysis.
- Clean technology - Process intensification and flow chemistry.
- Biocatalysis / Industrial biotechnology, especially directed towards the synthesis of fine chemicals, new drug leads, metabolites, bulk pharmaceutical products, water treatment and FMCG.
- Extensive world-wide networks and experience with fine chemicals/biotechnology and catalysis technology suppliers.
- Project management of internal and external ventures; out-sourcing.
- Green chemistry, sustainability and environmental science.
- Crystallisation and solid state chemistry.
- The industry-academia interface and international R&D consortia.
- Literature searching and analysis, technology reports.
- Continuing Professional Development training and workshops for industry, graduate and post graduate students.

Career History

2016-present Project manager Department of Chemical Engineering, University of Nottingham (part time).

2012-2017 Founder member of the IMI-EFIPA CHEM 21 consortium –Innovative Medicines Initiative (IMI) 4th call.

2011- present Founder and Managing Director of Charnwood Technical Consulting Ltd, an SME focused on pharmaceuticals, agrochemicals and industrial biotechnology.

2010—present – Assessor for Technology Strategy Board/Innovate UK

2000-2011 Senior Principal Scientist (Director level) at AstraZeneca Global Process Research and Development

1988-2000 Associate Director, Chemical Development, SmithKline Beecham

1993 Exeter University Post Doc research secondment to study the use of biocatalysts in synthetic organic chemistry.

1986-1988 Industrial Post Doctorial Fellow SmithKline and French Pharmaceuticals.

1980-1986 Bsc/PhD University of Essex, BSc in Chemistry, 1st class Honours, PhD in organophosphorus and organometallic chemistry

1976-1980 Analytical Chemist at Life Science Research.

1976-1980 Chelmsford College of Further Education, Ordinary National Certificate in Physical Sciences (with distinction), Higher National Certificate in Chemistry.

2011 -present honorary visiting Professor at York University (Department of Chemistry)

2011-present visiting Industrial Fellow at the University of Bath, Department of Chemistry.