Multi-parameter Cellular Analysis

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High-content analysis offers a range of approaches for high-throughput cellular analysis providing an in-depth view of the effects of genes and drugs on biological processes. A combination of automated imaging, sophisticated software and complementary fluorescent biology are required to enable high-content analysis. This presentation will cover validated biological assays and algorithms developed on robust imaging platforms.

Graduated with a B.Sc. (Hons) in Applied Biology, 1989 and Ph.D in Molecular Biology, 1996. Run and co-ordinated a major research programme within Biotherapeutic Product Development requiring the development and commercial exploitation of Directed Enzyme Prodrug Therapies (DEPT) for cancer therapy. Further experience in contract research aimed at the development and optimisation of recombinant processes for the commercial production of therapeutic agents and vaccines.

Joined GE Healthcare in 1999, currently Technology Manager for Molecualr Biology leading a team of molecular cell biologists. Developed a number of enabling technologies in automated imaging and analysis of cellular processes for functional genomics and screening applications. This includes a number of intrinsic and extrinsic fluorescent sensors; gene reporter, GFP reagents, cDNA and RNAi studies through plasmid and viral vector delivery. Extensive collaborations and liaison with several Universities, Hospitals and leading Pharmaceutical and Biotechnology companies.