

***In vitro* clinical diagnostics**

Clinical diagnostics is one of the most lucrative healthcare segments, driven by the increasing prevalence of chronic and infectious diseases, coupled with rapid technology enhancements. This \$38B industry spans clinical chemistry and *in vitro* immunoassay, to genetic diagnostics and point-of-care devices. Major companies such as Abbott, Siemens and Roche provide fully automated diagnostic systems for the routine hospital laboratories, but the markets are addressed through not only major players but also a variety of smaller, niche players.

Technologies are constantly developing and include single and multiple protein biomarker assays as well as PCR-formats and more specialised technologies such as immunocytochemistry and protein arrays. Commercialisation opportunities include not only fully-validated, integrated systems for multiple disease analytes, but also specialist consumables that are available as 'home-brew' tests rather than fully FDA-regulated kits.

The continued drive towards more effective and cost-contained healthcare, continues to drive this exciting global market towards faster, more accurate, cheaper, miniaturised and near-patient solutions. Ithaka Life Sciences Ltd. is well-placed to offer advice and support for clinical diagnostics. Our team has experience in technology evaluation, commercial strategies and practical implementation. Ithaka clients in the diagnostics field include: e2v biosensors ltd; Psynova Neurotech Ltd.; Selective Antibodies Ltd.; Smart Holograms Ltd.; Oxford Biosystems; The Daresbury Laboratory of the Council for the Central Laboratory of the Research Councils (now the Science and Technology Facilities Council); and NESTA. Team members with direct experience include Paul Rodgers Paula Wittels, Richard Cumming, and Malcolm Rhodes.

Paul Rodgers, Ithaka's Managing Director, is CEO of e2v biosensors ltd, a wholly owned subsidiary of e2v technologies plc, which is applying a novel immunoassay technology platform to the development of point-of-care tests for clinical diagnostics. Paul took on this role following completion of a market mapping exercise undertaken for e2v biosensors by a team of Ithaka consultants.

Paula Wittels has held senior roles at Pfizer Hospital Products and Quintiles Consulting, leading the development and marketing of novel diagnostics and medical devices. She has worked with a wide range of companies including start-ups developing business plans and market access strategies. She has extensive experience with the development and commercialisation of new technologies, including protein biomarker immunoassays.

Richard Cumming has over twenty years experience in product development, product management and marketing within Amersham International, Amersham-Pharmacia Biotech and General Electric (GE) Healthcare. Richard has worked on development of clinical diagnostic immunoassays, as well as evaluation of novel technologies for application in molecular diagnostics. In addition to his work with Ithaka, he is part-time marketing director of a company exploiting biomarker technologies for clinical diagnostics.

Malcolm Rhodes has over 30 years experience in bioprocess development, product development and operations including the development of polyclonal and monoclonal antibody reagents and test methods for blood grouping, and infectious disease immunoassays and at Bioscot/Serologicals (now Millipore).