

Professor Mark Drayson MBChB PhD FRCPATH

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About

Mark has directed the CIS since 2000. The service provides a unique interface between the University's substantial scientific expertise in immunology and the clinical investigation and management of blood cancers, immunodeficiency and autoimmunity in the West Midlands. Providing 500,000 immunodiagnostic tests per year for a population of five million, the CIS is in an ideal position for research and development.

He provides central laboratory analysis for UK clinical trials in myeloma and is chief investigator for two. The results of these trials are helping formulate world opinion on investigation and management of the disease. He has played a key role developing and demonstrating the utility of the first clinical test for serum immunoglobulin free light chains. This was disseminated worldwide by a University spinout company Binding Site, now selling six million tests a year across 90 countries. Mark has developed a second generation of the test which is being commercialised by University spin out company, Serascience, providing improved laboratory and unique point of care versions of the test. Mark is a member of national and international guidelines groups for diagnosis and management of myeloma and MGUS. His basic research in blood cancers is finding new therapies for blood cancers by drug redeployment which he is testing in trials in the UK and Africa.

He has major grants from Cancer Research UK, Leukaemia Lymphoma Research, Medical Research Council and National Institute of Health Research.

Qualifications

- F.R.C.Path - 2001
- M.R.C.Path. (Immunology) - 1993
- Ph.D. (Immunology) - 1987 (Manchester University)
- M.B.Ch.B. - 1980 (Manchester University)
- B.Sc. Hons. First Class - 1978 (Manchester University)
- G.M.C. No 2642983 (full registration August 1981) Specialist Registration Immunology 1994

Teaching

- 2nd **Medicine and Surgery MBChB** (</undergraduate/courses/med/medicine.aspx>) (350 students) Infection, Immunity and Haematology Module Coordinator (13 years)
- New **Medicine and Surgery MBChB Graduate Entry Course** (</undergraduate/courses/med/medicine-grad-entry.aspx>) (45 students started 2003) Immunology Lead for provision of the Threats and Defence Module
- 3rd **Medicine and Surgery MBChB** (</undergraduate/courses/med/medicine.aspx>) Clinical Immunology (350 students)
- 2nd **Medical Science BMedSc** (</undergraduate/courses/med/medical-sci.aspx>) (75 students) 3rd BMedSci (20 students)

Postgraduate supervision

- MSc Blood Sciences Lead for Immunology Module
- MRes students
- PhD students
- MD Students
- Specialist Registrar training in Immunology

Research

The Clinical Immunology Service provides a unique interface between the University's substantial scientific expertise in immunology and the main clinical areas for application in clinical academia and NHS practice. The service is a nidus for successful, productive (see references and teaching) interaction with clinical academics (nephrology, rheumatology, haematology, hepatology) and basic research groups in the Institute of Biomedical Research, School of Cancer Sciences and Biosciences. Central laboratory analysis and member trial management group for Phase 3 UK myeloma trials for 23 years (MRC 6, 7, 8, 9, 10, 11). These trials have helped formulate world opinion on the relative efficacy of different combinations of anti-myeloma therapy and supportive care. Chief Investigator for TEAMM that assesses antibiotic prophylaxis and health care associated infections in myeloma. Management of renal failure in myeloma has been advanced by MERIT and is being furthered in OPTIMAL.

Development of diagnostic tests includes helping develop the first clinical test for serum free light chains (sflc) launched in 2002. Demonstrated clinical utility and validity of the sflc test retrospectively and then prospectively in MRC Myeloma 9th – 11th trials and in MERIT. This first sflc test is recommended by international guidelines to stratify and manage patients with plasma cell dyscrasias and use of the test has been disseminated by Binding Site across 90 countries and increased to 6 million tests per year. Mark has developed a second generation of the test which is being commercialised by University spin out company, Serascience, providing improved laboratory and unique point of care versions of the test.

A longstanding Leukaemia lymphoma Research funded collaboration with Prof. Chris Bunce into blood cancers is translating into the clinic, enabling completion of trials of novel biological therapies for leukaemia / lymphoma with further trials in progress in the West Midlands and in Africa. This Programme has just been refunded along with Dr Farhat Khanim as an LLR Programme - Aldo-keto reductases (AKRs), BaP therapy and drug redeployment strategies for accelerating therapy development for haematological cancers.

Collaborative work with Sports and Exercise Medicine has developed an international reputation for the effect of physical and mental stress on response to vaccination and other parameters of immune function

Publications

63 peer reviewed scientific papers published in the last 5 years.

Includes papers in: Science, Lancet, Lancet Oncology, Journal Clinical Oncology, Blood, Proceedings National Academy Science