

Professor Jackson C. Kirkman-Brown MBE PhD

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Jackson is internationally recognized for his work in fertility and sperm (Andrology). He strongly believes that research into diagnostic and therapies in the area can have a rapid and direct impact not only on care, and therefore birth of the next generation, but also quality of life for the patients and children involved. As Director of the Centre for Human Reproductive Science he leads an interdisciplinary team with clinical trials and basic science collaborations across the UK and globe.

Jackson hold a dual-role, alongside his academic work he is also Director, HFEA Person Responsible and Science Lead at Birmingham Women's Fertility Centre which includes coordinating one of the largest regional Preimplantation Genetic Diagnosis (PGD) services.

Jackson has also been privileged to be able to have the opportunity to setup, develop and create the laboratory techniques and services for Fertility Preservation in the event of catastrophic genital injury. This work was undertaken with the Royal Centre for Defence Medicine and recognized with him being conferred an MBE and most recently being named as the Chief Scientific Officer's Healthcare Scientist of 2014 by Professor Sue Hill.

Jackson is Chair of the Association for Reproductive and Clinical Scientists (ARCS), the UK Professional Society for Andrology and Embryology. In this role he also sits on a number of committees including Human Fertilisation & Embryology Authority Professional Organisation Group. He is also a member of the Surgeon General's Military Genito-Urinary Working Group.

Jackson is a Past Coordinator of ESHRE-SIG Andrology and qualified to teach and assess the official ESHRE Basic Semen Analysis Training Course.

Research

- Sperm quality and selection. Taking knowledge from the HABSelect trial – where we conclusively demonstrated that female-age-related miscarriage actually has a major male factor - forwards into improved or new diagnostics and therapies for fertility.

- Flagellar beat analysis as a diagnostic and sperm-assessment measure, co-led alongside Dr Meurig Gallagher, utilising our “FAST” sperm software.
- Clinical Trials in Assisted Conception and Fertility (including pAToMiUM and UNiTY trials).
- How the human sperm interacts with the female reproductive tract. This encompasses calcium signalling in human sperm and its modulation by factors such as progesterone, nitric oxide exposure, and pharmacological ligands. Research in this area and other modulators of calcium signalling forms the basis of the majority of PhD studentships within our group.
- Collaboration on fluid dynamics in the female reproductive tract with Dr Meurig Gallagher. & Professor David Dyson-Smith. This involves various advanced imaging modalities including our “FAST” sperm software.
- Novel modulators of human sperm function alongside Dr Liam Cox and John Snaith (Chemistry, Birmingham)