

The male factor: fathers' contributions to reproduction

20 May 2025, 3pm–6pm followed by a networking reception Cynthia Beerbower Room, Newnham College, Cambridge

Organisers: Dr Erica Watson (PDN), Helen Dolling (Psychology), Natalie Smith (Cambridge IVF) and Christina Rozeik (Cambridge Reproduction)

Programme

- 15:00 Tea, coffee and soft drinks
- 15:15 Welcome and introduction

Nick Hopwood (HPS and Co-Chair of Cambridge Reproduction)

15:20 Interdisciplinary dialogue: Fathers' contributions before birth

- Erica Watson (PDN)
- Geraldine Jowett (Gurdon Institute)
- Rosanna Dent (HPS)

16:00 Interdisciplinary dialogue: Fatherhood and fertility

- Natalie Smith (Cambridge IVF)
- Jonathan Luwagga (Fertility Alliance)
- 16:30 Tea break
- 16:55 **Research theme framework proposal** (more information <u>here</u>!)
- 17:00 Flash talks

Chaired by Isabel Marchand-Casas (Pathology)

- Matthew Neville (Wellcome Sanger Institute)
- Ashley Moffett (Pathology)

17:20 Interdisciplinary dialogue: Fathers' contributions after birth

- Helen Dolling (Psychology)
- Matthew Jordan (Law)
- Shannon Philip (Sociology)

18:00 **Drinks and networking reception**

Flash talks

Chair: Isabel Marchand-Casas (Pathology)

The ageing father: Genetic implications for offspring health

Matthew Neville (Wellcome Sanger Institute)

Abstract: While maternal age has long been linked to reproductive risks, the impact of paternal ageing has received far less attention. Yet as more people choose to have children later in life, understanding how a father's age affects the health of his offspring is increasingly important. Ageing in men is associated with rising mutation rates in sperm and an increased risk of certain childhood disorders. In our recent study, we used high-precision sperm sequencing to explore directly how disease-causing mutations accumulate in sperm with age of fathers. These findings highlight the need to consider the age of both parents in the context of reproductive risk.

Matt Neville recently completed his PhD at the Wellcome Sanger Institute and University of Cambridge and is now a postdoctoral fellow at the Sanger Institute. His work explores how DNA mutations accumulate in sperm as men age and how this may affect the health of their children. He uses advanced sequencing methods to better understand the contribution of paternal age to reproductive and disease risk.

Are some men dangerous: How does the father contribute to successful pregnancy?

Ashley Moffett (Pathology)

Ashley Moffett qualified as a doctor from the University of Cambridge and trained as a physician in Oxford and then as a reproductive pathologist in The Rosie Maternity Hospital in Cambridge. For the last 30 years she has worked on the interactions between maternal uterine cells and placental trophoblast cells that determine placentation and reproductive outcome in humans. She is Emeritus Professor of Reproductive Immunology in the Dept. of Pathology in Cambridge.

