

Churchill College Storey's Way Cambridge CB3 0DS

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# Tracing Human Ancestry, using DNA

Dr Peter Forster
CSAR Member of Council;
Senior Lecturer in Forensic Science, Anglia Ruskin University, Cambridge

7.30 p.m., Monday 8<sup>th</sup> June, 2009 The Wolfson Lecture Theatre, Churchill College, Storey's Way, Cambridge

#### Dr Forster writes:

Modern DNA has been successfully used to trace and date the emergence of the first modern humans and the subsequent colonisation of our planet. The genetic approach provides an independent, consistent and global timeline linking living humans with their ancestors. This lecture summarises our genetic findings, covering the initial and modest spread of humans within Africa more than 100,000 years ago, the striking re-expansion within Africa 60-80,000 years ago, leading ultimately to the out-of-Africa migration of a single, small group which settled in Australia, Eurasia and America during windows of opportunity during Ice-Age fluctuations in sea-levels and climatic conditions. With this knowledge of our prehistoric ancestry, we have developed DNA tests for individuals to trace their very recent parentage (especially for adoptees who suspect they have exotic ancestry), to trace their historical ancestry (as in genealogical surname analysis reaching back centuries before church records are available), and to trace their prehistoric lineages to regions and continents of origin where our tribal hunter-gatherer ancestors survived the Ice Age.

#### **About the speaker:**

Peter was born in 1967, and studied chemistry at the universities of Kiel and Hamburg, specialised in genetics at the Heinrich-Pette-Institute of Virology and Immunology in Hamburg, and received his PhD in Biology in 1997. After postdoctoral research at the Institute of Legal Medicine in Münster until 1999, he was appointed research fellow at the McDonald Institute for Archaeological Research in Cambridge. He supervises students at Cambridge University, and since September 2006 holds a permanent position at Anglia Ruskin University, Cambridge.

From 1995-1999 he co-developed (with <u>H.-J. Bandelt</u> and <u>A. Röhl</u> and others) phylogenetic network analysis of mitochondrial DNA, Y-chromosomal DNA, and linguistic data. In 1999 he was appointed member of the editorial board of the International Journal of Legal Medicine, and was a Founding Member of the Junge Akademie in Berlin.

Between 1999 and 2006 he was a Fellow of New Hall, then Dean and Praelector. He acts as an external examiner for other universities, and as a reviewer for academic journals and research funding bodies in the United Kingdom and internationally.

## The Organising Secretary adds.....

Peter is also our latest addition to the CSAR Council, as our Vice-President. Already, he is proving his worth by standing in at short notice to replace Luisa Corrado's talk. This had to be cancelled due to a bereavement in Dr Corrado's family. The lecture will be given in the coming academic year. Well done, Peter, for helping us out.

Peter's research forms the basis of the current BBC2 series<sup>1</sup> "**The Incredible Human Journey**", where Peter Forster acted as a consultant geneticist, alongside paleo-anthropologist Chris Stringer (Natural History Museum, London), and palaeo-climatologist Paul Valdes (Bristol University.)

Best Regards

### Richard Freeman, CSAR Organising Secretary

Coffee available, as usual, in the foyer outside the lecture theatre from ~7.00 p.m.

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<sup>&</sup>lt;sup>1</sup> 21:30 on Sunday evenings, BBC2