

Julian Leon Huppert

DOB: 21/7/78
Gender: Male
Qualifications: MA MSci PhD (Cantab) MRSC MInstP
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Research experience

2007- Research Councils UK Academic Fellow in Computational Biology
Cavendish Laboratory, University of Cambridge
2007 Postdoctoral researcher, Unilever Centre for Molecular Science
Informatics, Cambridge University Chemical Laboratory
2005-7 Postdoctoral researcher, Wellcome Trust Sanger Institute

Education (University of Cambridge)

2001-2005 PhD with Dr Shankar Balasubramanian at Cambridge University
Chemical Laboratory. Entitled '*Studies on genomic G-quadruplexes*'
1996-2000 BA MSci in Natural Sciences, Trinity College, Cambridge. 1st class
honours all four years; Tripos Prize all four years.

Significant awards

2009 Elected Fellow of Clare College, Cambridge
2007 Awarded RCUK Academic Fellowship
2007 Invited contributor to Phil Trans Roy Soc A Triennial issue on
Chemistry and Engineering
2004 Awarded Title A Fellowship at Trinity College, Cambridge
2004 DTI SMART award for innovation (for Cambridge Laboratory
Innovations Ltd)
1995 Silver medallist, International Chemistry Olympiad, Beijing, China.
1995 Australian Students Prize

Selected publications

- 1) 'Loop-length-dependent folding of G-quadruplexes'; Hazel, Huppert,
Balasubramanian and Neidle, J. Am. Chem. Soc., (2004) 126, 16405-15
- 2) 'Prevalence of quadruplexes in the human genome'; Huppert and
Balasubramanian, Nucl. Ac. Res. (2005) 33, 2908-16

- 3) 'Putative DNA quadruplex formation within the human c-kit oncogene'; Rankin et al., *J. Am. Chem. Soc.*, (2005) 127, 10584-9
- 4) 'A Conserved Quadruplex Motif Located in a Transcription Activation Site of the Human c-kit Oncogene'; Fernando et al., *Biochemistry*. (2006) 45, 7854-7860
(7th Most Cited Article from *Biochemistry* 2006)
- 5) 'Genomic quadruplexes'; Huppert, in *Quadruplex Nucleic Acids* (2006), Neidle and Balasubramanian Eds., Royal Society of Chemistry publications, ISBN 0 85404 374 8
- 6) 'G-quadruplexes in promoters throughout the human genome'; Huppert and Balasubramanian, *Nucl. Ac. Res.* (2007) 35, 406-413
- 7) 'An RNA G-quadruplex in the 5'-UTR of a proto-oncogene regulates translation'; Kumari et al, *Nat. Chem. Biol.* (2007) 3, 218-221
- 8) 'The ENCODE pilot project: functional annotation of 1% of the human genome'; The ENCODE Consortium, *Nature* (2007) 447, 799-816
(2nd most cited article from *Nature* 2007)
- 9) 'Four-stranded DNA: Cancer, gene regulation and drug development'; Huppert, *Phil. Trans. Roy. Soc. A* (2007) 365, 2969-2984
- 10) 'Hunting G-quadruplexes'; Huppert, *Biochimie* (2008) 90, 1140-8.
- 11) 'Four-stranded nucleic acids: structure, function and targeting of G-quadruplexes'; Huppert, *Chem. Soc. Rev.* (2008) 37, 1375-1384.
- 12) 'Thermodynamic prediction of RNA/DNA duplex-forming regions in the human genome'; Huppert, *Mol. Biosyst* (2008) 4, 686-691.
- 13) 'G-quadruplexes: The beginning and end of UTRs'; Huppert et al. *Nucl. Ac. Res.* (2008) 36, 6260-8.
- 14) 'Predicting and understanding the stability of G-quadruplexes'; Stegle et al., *Bioinformatics* (2009) 25, i374-i382.
- 15) 'Function and targeting of G-quadruplexes'; Wong et al., *Curr. Op. Mol. Ther.* (2009) 11, 146-55.
- 16) 'Interfacing systems biology and synthetic biology'; Lister et al., *Genome Biology* (2009) 10, 309.
- 17) 'Meeting report: Second international meeting on quadruplex DNA'; Herbert et al., *Biochimie* (2009) 91, 1059.
- 18) 'Stable G-quadruplexes are found outside nucleosome-bound regions'; Wong and Huppert, *Mol Biosyst* (2009) *In press*.
- 19) 'Direct visualization of G-quadruplexes in DNA using atomic force microscopy'; Neves et al., *Nucl. Ac. Res.* (2009) *In press*.

Funding

2009- Marie Curie Initial Training Network Physics of Complex Colloids: Equilibrium and Driven (ITN-COMPLOIDS)

- 2009- European network on G-quartets and quadruplex nucleic acids.
- 2009- Newton Trust research grant '*Predicting the stability and function of G-quadruplex nucleic acids*'
- 2009 Royal Society Conference Grant
- 2009 EPSRC UROP grant
- 2004-9 Trinity College Fellowship
- 2005-7 Research Grant, Trinity College, Cambridge. £10,000 awarded for project entitled '*Complex DNA structures and the genome*'
- 2001-4 BBSRC PhD Studentship

Other experience

- 2009- Council Member, Liberty
- 2003-5 CEO, Cambridge Laboratory Innovations Ltd.
- 2001-9 County Councillor, East Chesterton
- 2004-7 Leader of the Liberal Democrats, Cambridgeshire County Council
- 2000-1 Business Analyst, Monis Software Ltd