# CURRICULUM VITAE

ALISTAIR BAILEY

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## CONTACT DETAILS

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## EDUCATION

December 2014 to December 2015 - Johns Hopkins University Coursera Data Science Specialization
October 2004 to September 2013 – University of Southampton
September 1992 – June 1994 Bournemouth & Poole College of Art & Design
September 1989 – June 1991 Strode's College, Egham, Surrey.
September 1984 – July 1989 Ranelagh School, Bracknell, Berkshire.

## QUALIFICATIONS

PhD in Immunology at the University of Southampton
BEng with First Class Honours in Civil Engineering, University of Southampton
Degree Foundation Year, Faculty of Engineering, Science and Mathematics, University of Southampton
Open University Mathematics MU120 and MST121
GCSE: Maths, English Language, English Literature, Physics, Chemistry, Economics, Geography, Art.
A-level: Chemistry, Economics, Sociology.
BTEC ND: Audio-Visual Production.
BBC Training & Development: Satellites in Communication, SDI Practice & Troubleshooting.
Coursera Data Science Specialization: Data Scientists Toolbox, R programming, Getting and Cleaning Data, Exploratory Data Analysis, Reproducible Research.

## EMPLOYMENT

January 2014 to present: Post-doctoral Research Fellow, Elliott Lab, University of Southampton
January 2013 to January 2014: MRC Centenary Award Research Fellow
March 2012 to June 2012: Internship, Microsoft Research, Cambridge.
October 2004 to September 2012 : Freelance Satellite Communications Engineer
March 2001 to October 2004: Satellite Master Control Room Engineer, Globecast, 200 Gray's Inn Road, London W1
May 1995 – November 1999: Master Control Room Engineer Telecine, 48 Charlotte Street, London W1
July 1994 – September 1994: Sound Recordist, Wrightstuff Productions, Wells, Somerset

## ON-LINE PRESENCE

Google Scholar Profile
Academic Website
GitHub
GitHub Project Pages

## PUBLICATIONS

Direct evidence for conformational dynamics in major histocompatibility complex class I molecules. A. van Hateren, M. Anderson, ***A. Bailey***, J. M. Werner, P. Skipp, T. Elliott. Journal of Biological Chemistry, 2017.
Recent advances in Major Histocompatibility Complex class I antigen presentation: Plastic MHC molecules and TAPBPR-mediated quality control. A. van Hateren, ***A. Bailey***, T. Elliott. F1000 Research, 2017
Selector function of MHC I molecules is determined by protein plasticity, ***A Bailey***, N Dalchau, R Carter, S Emmott, A Phillips, JM Werner and T Elliott Scientific Reports, 2015.
Plasticity of empty major histocompatibility complex class I molecules determines peptide-selector function, A van Hateren, ***A Bailey***, JM Werner, T Elliott - Molecular immunology, 2015
Two polymorphisms facilitate differences in plasticity between two chicken major histocompatibility complex class I proteins ***A Bailey***, A van Hateren, T Elliott, JM Werner - PloS one, 2014
A mechanistic basis for the co-evolution of chicken tapasin and major histocompatibility complex class I (MHC I) proteins, A van Hateren, R Carter, ***A Bailey***, N Kontouli, Williams, A. P. Kaufman, J. Elliott, T. - Journal of Biological Chemistry, 2013
The cell biology of major histocompatibility complex class I assembly: towards a molecular understanding, A Van Hateren, E James, ***A Bailey***, A Phillips, Dalchau, N. Elliott, T. - Tissue antigens, 2010

## EXPERIENCE

My current project aims to understand the involvement of class I MHC molecules in skin sensitisation to chemical allergens. I also contribute to research into contagious cancer in the Tasmanian Devil, and I am a Data and Software Carpentry instructor.
I have experience with molecular dynamics simulations, and experimental experience in fluorescent spectroscopy of kinetic measurements, immunopeptidomics, and hydrogen/deuterium exchange mass spectrometry.

I have 17 years experience working in satellite communications and control room operations. Projects I have worked on in 2012 include the London Olympics Projects I have worked on in 2011 include the Royal Wedding, Premiership and Champions League Football, Wimbledon and the Rugby World Cup.

## REFEREES

Professor Tim Elliott, Cancer Sciences Division, MP824 200, Southampton General Hospital, Tremona Road, Southampton SO16 6YD

Jonathon Morley, Chief of UK Operations, Globecast London, 200 Gray's Inn Road, London, WC1X 8XZ