

Dr Zania Stamataki MSc, PhD

Royal Society Dorothy Hodgkin Fellow

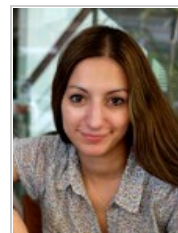
[School of Immunity and Infection \(/schools/immunity-infection/index.aspx\)](/schools/immunity-infection/index.aspx)

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About

Zania Stamataki is a viral immunologist with an interest in persistent infections and chronic inflammation. She has taken up a 5-year Royal Society Dorothy Hodgkin Research fellowship in 2011, leading to an academic position.

Qualifications

- Royal Society Dorothy Hodgkin Fellowship, 2011
- PhD Immunology, 2005
- MSc Immunology, 2001
- BSc (Hons) Molecular Biology 2000

Biography

Zania obtained her PhD in Immunology from Imperial College London in conjunction with the Institute for Animal Health, Compton. Her studies characterised human, bovine and ovine follicular dendritic cells, a stromal cell type with a role in B cell effector functions, viral retention and prion disease. She went on to study the role of signalling molecules in B cell development with Dr Martin Turner at the Babraham Institute in Cambridge.

Zania came to the University of Birmingham in 2005 to study virus transmission and humoral immunity to infection in Prof. Jane McKeating's Hepatitis C Research Group. She then moved on to the NIHR Biomedical Research Unit Centre for Liver Research with Prof. David Adams, to study lymphocyte-hepatocyte interactions and liver immunology.

She is now a Dorothy Hodgkin Fellow funded by the Royal Society to investigate the role of lymphocytes as vehicles for virus transmission. Zania is interested in defining the complex role of lymphocytes in persistent infections, both from an immunology and a virology perspective.

Zania is a member of Women in Academic Medicine and Science (WAMS) steering group and the Athena SWAN committee. She is on the editorial boards of journals for virology and hepatology and is a STEM ambassador to promote Science and Technology for children and young people.

Teaching

Teaching Programmes

- **[Medical Science BMedSc \(/undergraduate/courses/med/medical-sci.aspx\)](/undergraduate/courses/med/medical-sci.aspx)**
- **[Medicine and Surgery MBChB \(/undergraduate/courses/med/medicine.aspx\)](/undergraduate/courses/med/medicine.aspx)**

Postgraduate supervision

Zania is interested in supervising doctoral research students in the following areas:

- The role of lymphocytes in viral transmission
- Lymphocyte-hepatocyte interactions in liver pathobiology
- Viral immunology of persistent infections.

If you are interesting in studying any of these subject areas please contact Zania on the contact details above, or for any general doctoral research enquiries, please email: [dr@contacts.bham.ac.uk \(mailto:dr@contacts.bham.ac.uk\)](mailto:dr@contacts.bham.ac.uk) or call +44 (0)121 414 5005

For a full list of available Doctoral Research opportunities, please visit our Doctoral Research programme listings.

Research

RESEARCH THEMES

Hepatitis C infection, chronic inflammation, viral persistence, liver immunology, T cell effector functions, antibodies and humoral immunity, vaccines, clinical trials.

RESEARCH ACTIVITY

Zania's research studies the complex roles of lymphocytes in virus infection.

Antiviral Immunity/ Immunology of the Liver

Hepatitis C virus develops persistence in most infected individuals yet 20% of patients spontaneously resolve the infection. The correlates of this resolution remain unclear. Zania is investigating anti-viral immunity with a focus on B and CD4+ T cell responses in the context of the liver. Access to patient cohorts and human blood and liver from the Queen Elisabeth Hospital enables detailed studies in humans and translational applications of her current research.

Virus Transmission

It is challenging to culture patient-derived virus and the field is limited to the study of few rare isolates that can grow in the laboratory in category III containment level conditions. Zania's research explores virus transmission from cell to cell, particularly using lymphocytes as viral vehicles for transmission to the liver.

Other activities

- Women in Academic Medicine and Science (WAMS) steering group committee for Athena SWAN
- STEM ambassador to promote Science and Technology for children and young people
- Learning and Teaching in Higher Education (PGCert. LTHE)

Publications

Production, purification and characterization of recombinant, full-length human claudin-1. (<http://www.ncbi.nlm.nih.gov/pubmed/23704991>) Bonander N, Jamshad M, Oberthür D, Clare M, Barwell J, Hu K, Farquhar MJ, Stamataki Z, Harris HJ, Dierks K, Dafforn TR, Betzel C, McKeating JA, Bill RM. PloS one 2013 **8**: e64517

In vitro systems for the study of hepatitis C virus infection. (<http://www.ncbi.nlm.nih.gov/pubmed/23056952>) Wilson GK, Stamataki Z. International journal of hepatology 2012 **2012**: 292591

Monocyte subsets in human liver disease show distinct phenotypic and functional characteristics. (<http://www.ncbi.nlm.nih.gov/pubmed/22911542>) Liaskou E, Zimmermann HW, Li KK, Oo YH, Suresh S, Stamataki Z, Qureshi O, Lalor PF, Shaw J, Syn WK, Curbishley SM, Adams DH. Hepatology (Baltimore, Md.) 2013 **57**: 385-98

Recruitment mechanisms of primary and malignant B cells to the human liver. (<http://www.ncbi.nlm.nih.gov/pubmed/22508288>) Shetty S, Bruns T, Weston CJ, Stamataki Z, Oo YH, Long HM, Reynolds GM, Pratt G, Moss P, Jalkanen S, Hubscher SG, Lalor PF, Adams DH. Hepatology (Baltimore, Md.) 2012 **56**: 1521-31

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Hepatitis C virus infects the endothelial cells of the blood-brain barrier. (<http://www.ncbi.nlm.nih.gov/pubmed/22138189>) Fletcher NF, Wilson GK, Murray J, Hu K, Lewis A, Reynolds GM, Stamataki Z, Meredith LW, Rowe IA, Luo G, Lopez-Ramirez MA, Baumert TF, Weksler B, Couraud PO, Kim KS, Romero IA, Jopling C, Morgello S, Balfe P, McKeating JA. Gastroenterology 2012 **142**: 634-643.e6

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Immunization of human volunteers with hepatitis C virus envelope glycoproteins elicits antibodies that cross-neutralize heterologous virus strains. (<http://www.ncbi.nlm.nih.gov/pubmed/21788452>) Stamataki Z, Coates S, Abrignani S, Houghton M, McKeating JA. The Journal of infectious diseases 2011 **204**: 811-3

Hepatitis C virus targets the T cell secretory machinery as a mechanism of immune evasion. (<http://www.ncbi.nlm.nih.gov/pubmed/21452285>) Petrovic D, Stamataki Z, Dempsey E, Golden-Mason L, Freeley M, Doherty D, Prichard D, Keogh C, Conroy J, Mitchell S, Volkov Y, McKeating JA, O'Farrelly C, Kelleher D, Long A. Hepatology (Baltimore, Md.) 2011 **53**: 1846-53

Structural characterization of CD81-Claudin-1 hepatitis C virus receptor complexes. (<http://www.ncbi.nlm.nih.gov/pubmed/21428935>) Bonander N, Jamshad M, Hu K, Farquhar MJ, Stamataki Z, Balfe P, McKeating JA, Bill RM. Biochemical Society transactions 2011 **39**: 537-40

Common lymphatic endothelial and vascular endothelial receptor-1 mediates the transmigration of regulatory T cells across human hepatic sinusoidal endothelium. (<http://www.ncbi.nlm.nih.gov/pubmed/21368224>) Shetty S, Weston CJ, Oo YH, Westerlund N, Stamataki Z, Youster J, Hubscher SG, Salmi M, Jalkanen S, Lalor PF, Adams DH. Journal of immunology (Baltimore, Md. : 1950) 2011 **186**: 4147-55

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Hepatitis C virus association with peripheral blood B lymphocytes potentiates viral infection of liver-derived hepatoma cells. (<http://www.ncbi.nlm.nih.gov/pubmed/18838615>) Stamataki Z, Shannon-Lowe C, Shaw J, Mutimer D, Rickinson AB, Gordon J, Adams DH, Balfe P, McKeating JA. Blood 2009 **113**: 585-93

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