



Toby LAWRENCE, PhD

Group leader: Biology of Inflammation

Background

I received my PhD in Experimental Pathology at the William Harvey Research Institute at Barts' Medical College, London in 2001, under the supervision of the late Prof. Derek A. Willoughby. During my thesis studies I developed interests in the NF-kappaB signalling pathway and the resolution of inflammation.

Following the award of a travelling fellowship from Arthritis Research UK and an International Research Fellowship from the Wellcome Trust, I performed post-doctoral studies with Prof. Michael Karin at the Laboratory of Signal transduction and Gene Regulation, University of California San Diego, where I studied the role of I κ B kinase (IKK) and NF-kappaB signalling in inflammation and immunity.

In 2005 I returned to the UK, with continued funding from my Wellcome Trust fellowship, to pursue independent research interests in cell signalling and the regulation inflammation at the Kennedy Institute of Rheumatology, Imperial College London. During this time I developed interests in inflammation and cancer and initiated collaborations with Prof. Frances Balkwill at Bart's Cancer Institute in London.

In 2007, I joined the Centre for Inflammation and Cancer headed by Prof. Balkwill to develop a project to study signalling pathways in tumour-associated macrophages, with the aid of a Medical Research Council New Investigator Award.

In 2009, I was recruited by the French National Institute of Health and Medical Research (INSERM) as a tenured Research Director (Directeur de recherche) and established the Inflammation Biology Group at the Centre d'Immunologie Marseille Luminy (CIML) and in 2010 I was awarded a European Research Council (ERC) Starting Investigator Grant.

During my career to date I have published more than 60 peer reviewed papers in journals including; Nature, Nature Medicine, Immunity, J Exp Med, EMBO J and PNAS in addition to invited articles in; Cell, Science, Cancer Cell and Nat Rev Immunol. Collectively these papers have received more than 12,800 citations; h-index 35 (i10-index 44).

Awards

2011	ERC Starting Investigator Grant
2008	ISICR Seymour and Vivian Milstein Young Investigator Award
2008	EMBO Workshop Fellowship, NF- κ B in Development and Disease
2007	Inserm Avenir Award
2006	Medical Research Council (MRC) New Investigator Award
2002	Wellcome Trust International Research Fellowship
2001	Arthritis Research Campaign Travelling Fellowship
2000 & 2002	C. Gordon Van Arman Scholarship for Excellence in Inflammation Research
2001	British Society of Rheumatology Young Investigator Award

Selected publications

- Habbeddine M, Verthuy C, Rastoin O, Chasson L, Bebien M, Bajenoff M,...Lawrence T. Receptor Activator of NF- κ B Orchestrates Activation of Antiviral Memory CD8 T Cells in the Spleen Marginal Zone. *Cell reports* 2018;21(9): 2515-2527
- Baratin M, Foray C, Demaria O, Habbeddine M, Pollet E, Maurizio J, Verthuy C, Davanture S, Flores-Langarica A, Dalod M, Lawrence T. Homeostatic NF- κ B signaling in steady-state migratory dendritic cells regulates immune homeostasis and tolerance. *Immunity*. 2015 Apr 21;42(4):627-39.
- Murray PJ, Allen JE, Biswas SK, Fisher EA, Gilroy DW, Goerdt S, Gordon S, Hamilton JA, Ivashkiv LB, Lawrence T, et al. Macrophage activation and polarization: nomenclature and experimental guidelines. *Immunity*. 2014 Jul 17;41(1):14-20.
- Dalod M, Chelbi R, Malissen B, Lawrence T. Dendritic cell maturation: functional specialization through signaling specificity and transcriptional programming. *EMBO J*. 2014 May 16;33(10):1104-16.
- Mancino A, Habbeddine M, Johnson E, Luron L, Bebien M, Memet S, Fong C, Bajenoff M, Wu X, Karin M, Caamano J, Chi H, Seed M, Lawrence T. I kappa B kinase alpha (IKK α) activity is required for functional maturation of dendritic cells and acquired immunity to infection. *EMBO J*. 2013 Mar 20;32(6):816-28.
- Lawrence T, Natoli G. Transcriptional regulation of macrophage polarization: enabling diversity with identity. *Nat Rev Immunol*. 2011 Oct 25;11(11):750-61.