GESINAS - ImmunoTools Award 2014

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Widening participation in the study of medicine at Oxford

Apart from my research activities (described briefly below), I am also Deputy Director of the Preclinical Medical School in Oxford. As part of this role, I have a responsibility for the central co-ordination of the selection of medical students by the individual Colleges in our annual University admissions process. We accept applications from all over the world, and admit students from a wide range of educational backgrounds. I believe that our selection process is rigorous, fair and transparent; it is described in detail at the following website:
http://www.medsci.ox.ac.uk/study/medicine/pre-clinical/applying/timeline

In order to ensure that prospective applicants with the necessary qualities for success on the course (and in a subsequent lifelong career in medicine) are not deterred from applying by perceived stereotypes and myths about Oxford, I undertake a wide range of outreach activities during the year. I speak at each of the University Open Days, giving talks about the course and the application process, as well as giving mock interviews in front of large audiences in an attempt to demystify the process. I visit schools and regularly speak at Pathway study days, which are aspirational visits to Oxford arranged for students from schools that traditionally send few or no applicants to Oxford. I am also co-organiser of the annual UNIQ Summer School in medicine, which welcomes forty prospective applicants from less privileged backgrounds for a week of seminars, discussions and biomedical practicals run by Oxford academics. This taster of University life encourages a high proportion to apply to courses at Oxford, with an impressive success rate.

The most highly visible events that I am involved in are the annual Oxford and Cambridge regional student conferences, which are large-scale outreach events that take place throughout the UK. This year I have spoken in Edinburgh, Newcastle, Manchester, London, Swansea and Birmingham, addressing well over one thousand students who are interested in applying to study medicine in Oxford. Most of these students have little or no family or school experience of Oxford or Cambridge (or

indeed University study at all in some cases), and we are seeking to raise their awareness that there are no barriers to the study of medicine for anyone with the academic ability and personal characteristics, regardless of their background. I regard this as a key part of my role within the University, and my social responsibility to the society that pays me, and I am delighted to say that recent statistics suggest that we are indeed getting the message across, and improving diversity of background in our applications.

My research interests

My research interests include studies of the role of the nuclear envelope in signalling and aging. In particular, we study the role of the lamin protein family and the formation and function of deep invaginations of the nuclear envelope into the nuclear interior to form a nucleoplasmic reticulum (NR). This NR is abundant in many normal cell types, and may exhibit a wide diversity of morphologies, but is also strkingly increased and altered in a number of pathological states including infections and cancer (For a review see *Malhas et al (2011)* ***Trends in Cell Biology*** *21 362-73*). I am also interested in the ubiqutination functions of BRCA1 and in particular how ubiqutination of extranuclear target proteins by BRCA1 ligase activity can modulate cell adhesion and motility to promote early breast cancer metastasis. The other major activity of the lab concerns biophysical and drug discovery studies of the mechanism of oligomerisation of amyloid precursors in neurodegenerative diseases including Alzheimer's Disease.

Use of the selected ImmunoTools reagents within my project

I have selected a range of ELISA kits, directly labelled antibodies and recombinant cytokines to support our current efforts to compare the human and murine responses of microglial cells to inflammatory stimuli driven by amyloid phagocytosis.

GESINAS **-** **ImmunoTools** AWARD

for **David J Vaux** includes 40 reagents

FITC - conjugated anti-human IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, CD9, CD14, CD18, CD27, CD29, CD36, CD38, CD47, CD54, CD56, CD58, CD63, CD105, Annexin V

PE - conjugated anti-human CD44, CD50,

human IL-4 ELISA-set for 96 wells, human IL-6 ELISA-set for 96 wells, human IL-8 ELISA-set for 96 wells, human IL-12p40 total (detect IL-23 as well) for 96 wells, human IL-12p40 differential (detect IL-12p40 but not IL-12p70) for 96 wells, human TNFa ELISA-set for 96 wells (each 3 reagents),

FITC - conjugated anti-mouse CD29, isotype control IgG2b

DETAILS more AWARDS