

Professor Lesley Jones Curriculum Vitae, June 2014

Present and previous appointments

- Current post** Professor (Aug 2012), Reader (Aug 2006)/Senior Lecturer in Neuropsychiatric Genetics, Institute of Medical Genetics and Dept of Psychological Medicine, Wales School of Medicine, Cardiff University.
Director of Postgraduate Research, School of Medicine, Cardiff University (Aug 2009 – present).
- 1994 – 1999** Senior Scientist then Lecturer in Neuropsychiatric Genetics, as above.
- 1989 – 1999** Research Associate, Depts of Biochemistry and Microbiology, University of Wales, Cardiff. Funded by NERC followed by SERC in collaboration with Agr-Evo, Saffron Walden.
- 1985 – 1989** Research Assistant and PhD student, funded by NERC.
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Qualifications: PhD (1990), BSc (hons) 1st class (1985), University of Wales, Cardiff

Current funding

1. PhD studentship “Examining the biological basis of deteriorating cognition in Huntington’s disease” School/Institute funded £54,000, Oct 2012 – Sept 2015 (main supervisor, Stephen Dunnett and Simon Brooks, School of BIOSI co-supervisors).
2. CHDI research contract (SP Brooks, L Jones & SB Dunnett). “Comparative behavioural, anatomical and molecular changes in mouse models of Huntington’s disease.” £904,000, over 3 years, 1st January 2012- 31st Dec 2014.
3. MRC Centre “The Centre for Neuropsychiatric Genetics and Genomics” Co-applicant (the MRC Centre for Neuropsychiatric Genetics and Genomics, 2014-2019, £1.7M).
4. Wellcome Trust Studentship. “The role of huntingtin phosphorylation in Huntington’s disease” £118,500, 2010-2013. (main supervisor) from the Cardiff University Wellcome Trust training initiative in Integrated Neuroscience in which I am a named supervisor.

Submitted applications

5. AZAPT: Deciphering pathophysiological processes of Alzheimer’s disease for better diagnosis, prognosis and treatment: moving towards personalised medicine (Horizon 2020, PI Jean-Charles Lambert, Institute Pasteur, Lille, France) total 6M euro, Cardiff 800K euro. (2nd stage)
6. ARUK network centre grant: Cardiff. PI. £150K, 36m.
7. ARUK network collaboration: Identifying pathogenic genes and DNA variants in neurodegenerations using in silico data integration. PI £100K, 24m.

Recent talks and seminars

- Organiser and session chair, European HD Network, Barcelona 2014.
- UK HD network “Genetic Modifiers in Huntington’s disease”

- Talk SMI, New targets in Neurodegeneration, London, Nov 2013.
- Seminar, University of Bath, Feb 2014.
- World Congress of HD, Rio de Janeiro, Sept 2013 (invited plenary).
- HD therapeutics conference, Venice, 8-12/4/13 (invited oral presentation).
- Genetic modifiers workshop (chair and organiser), Stockholm Sept 2012.
- Young Life Scientists workshop (plenary) Cardiff, Aug 2012.

Current Research

My laboratory has been pursuing research into the molecular basis of Huntington's disease (HD) using cell and animal models and genetics. My H-index is 28 with >2000 citations to 75 peer-reviewed articles with a citation rate of >200/year since 2008 (Web of Science only). I have published extensively in the HD field (45 peer-reviewed original articles). I have contributed to other research being pursued in the MRC Centre for Neuropsychiatric Genetics and Genomics, particularly in Alzheimer's disease (10 peer-reviewed original articles) and the analysis of gene expression data (7 peer-reviewed original articles).

I was chair of the Scientific and Bioethical Advisory Committee (SBAC) for the European Huntington's Disease Network from Sept 2010 – Sept 2012. The committee oversees and recommends access to Europe-wide collections of clinical data and biosamples from HD subjects (Registry, <http://www.euro-hd.net/html/registry/>) and reviews seed fund grants. I was a active member of the SBAC from 2006 and am still a member. I participated in the National Institute of Neurological Disorders and Stroke – Common Data Elements (NINDS-CDE) project for HD, as part of the working group on genetic data elements. I am the Lead Facilitator of the Genetic Modifiers working group of EHDN (description etc) and a member of the Biomarkers and Environmental Modifiers working groups. I am joint leader of the ongoing genetic modifiers GWAS study for HD. I review for major national and international funding bodies and journals.

Contribution to University

Postgraduate research

I have supervised twelve PhD students as main supervisor and two as co-supervisor, as well as one MPhil. I have been an external supervisor for 3 students, one current. All these students have completed their studies successfully and on time. I have examined >20 PhD students externally and > 15 internally.

External roles and responsibilities

I was chair of the Scientific and Bioethical Advisory Committee (SBAC) for the European Huntington's Disease Network from Sept 2010 – Sept 2012. I participated in the National Institute of Neurological Disorders and Stroke – Common Data Elements (NINDS-CDE) project for HD, as part of the working group on genetic data elements: this is part of NIH. I am also a member of the Data Sharing and Publication working group of ENROLL (<http://www.enroll-hd.org>). In addition I am the Lead Facilitator of the Genetic Modifiers working group of EHDN and a member of the Biomarkers and Biological Modifiers working groups.

Other roles

- Member of Alzheimer's Research UK Scientific Advisory Board.
- Reviewer of grants for MRC, BBSRC, Wellcome Trust, Alzheimer's Society, Alzheimer's Research Trust, Hereditary Disease Foundation, Cure HD Initiative, NIH, EU FP 6 and 7, Marsden Foundation (NZ) .
- Reviewer of research papers for Nature Genetics, New England Journal of Medicine, Human Molecular Genetics, Human Genetics, Neurobiology of Disease among others.
- Member of the editorial review boards for the Journal of Huntington's Disease, Frontiers in Neurodegeneration and PLOSCurrentsHD.

Selected Publications

1. **Lesley Jones**, Jean-Charles Lambert, Li-San Wang et al. ... Gerard D Schellenberg, Sudha Seshadri, Philippe Amouyel, Julie Williams, Peter A Holmans. Convergent genetic and expression data implicate immunity in Alzheimer's disease. *Alzheimer's and Dementia*, **in press**
2. Valentina Escott-Price, Céline Bellenguez, Li-San Wang, Seung-Hoan Choi, Denise Harold, **Lesley Jones**... Julie Williams. Gene-wide analysis detects two new susceptibility genes for Alzheimer's disease. *PLOSOne*, **in press**
3. Hughes AC, Mort M, Elliston L, Thomas RM, Brooks SP, Dunnett SB, **Jones L.** (2014) Identification of novel alternative splicing events in the huntingtin gene and assessment of the functional consequences using structural protein homology modelling. *Journal of Molecular Biology*, 426:1428-38
4. Jean-Charles Lambert, ...**Lesley Jones**, Jonathan L Haines, Peter A Holmans, Mark Lathrop, Margaret A Pericak-Vance, Lenore J Launer, Lindsay A Farrer, Cornelia M van Duijn, Christine Van Broeckhoven, Valentina Moskva, Sudha Seshadri, Julie Williams, Gerard D Schellenberg & Philippe Amouyel. (2013) Meta-analysis of 74,046 individuals identifies 11 new susceptibility loci for Alzheimer's disease. *Nature Genetics* 45, 1452-1458
5. Taylor DM, Moser R, Régulier E, Breuillaud L, Dixon M, Beesen AA, Elliston L, Silva Santos MDEF, Kim J, **Jones L, et al.** (2013) MAP kinase phosphatase 1 (MKP-1/DUSP1) is neuroprotective in Huntington's disease via additive effects of JNK and p38 inhibition. *J Neurosci* **33**(6):2313-2325.
6. Peter Holmans, Valentina Moskva, **Lesley Jones**, Manu Sharma, The International Parkinson's Disease Genomics Consortium (IPDGC) et al.(2013) A pathway based analysis provides additional support for an immune related genetic susceptibility to Parkinson's disease. *Human Molecular Genetics* **22**:1039-1049.
7. Feyeux M, Bourgois-Rocha F, Redfern A, Giles P, Lefort N, ..**Jones L**, Peschanski M, Allen ND, Perrier AP. (2012) Early transcriptional changes linked to naturally occurring Huntington's disease mutations in human embryonic stem cells. *Hum Mol Genet*, 21, 3883-95.
8. Brooks SP, **Jones L**, Dunnett SB. (2012) Comparative analysis of pathology and behavioural phenotypes in mouse models of Huntington's disease. *Brain Res Bull.* 88:81-93.
9. Giles P., Elliston L., Higgs G., Brooks S.P., Dunnett, S.B., and **Jones L.** (2012) Longitudinal analysis of gene expression and behaviour in the HdhQ150 mouse model of HD. *Brain Res Bull*, 88:199 – 209
10. Deschepper, M., Hoogendoorn, B., Brooks, S., Dunnett, S.B., and **Jones, L.** (2012). Proteomic changes in the brains of Huntington's disease mouse models reflect pathology and implicate mitochondrial changes. *Brain Research Bulletin.* 88: 210 - 222
11. Richards, A.L., **Jones, L.**, Moskva, V., Kirov, G., Gejman, P.V., Levinson, D.F., Sanders, A.R., Molecular Genetics of Schizophrenia Collaboration, I.S.C., Purcell, S., Visscher, P.M., et al. (2012). Schizophrenia susceptibility alleles are enriched for alleles that affect gene expression in adult human brain. *Molecular Psychiatry* 17:193-201.
12. Hollingworth, P., Harold, D., Sims, R., et al. **Jones L**, Holmans PA, Jonsson T, Riemenschneider M, Morgan K, Younkin SG, Owen MJ, O'Donovan M, Amouyel P, Williams J. (2011). Common variants at ABCA7, MS4A6A/MS4A4E, EPHA1, CD33 and CD2AP are associated with Alzheimer's disease. *Nature Genetics* 43, 429-435.
13. **Jones, L.**, Holmans, P.A., Hamshere, M.L., Harold, D., Moskva, V..... Hollingworth, P., Sims, R., et al. (2010). Genetic evidence implicates the immune system and cholesterol metabolism in the aetiology of Alzheimer's disease. *PLoS One* 5, e13950-e13950.
14. Richards, A.L., Holmans, P., O'Donovan, M.C., Owen, M.J., and **Jones, L.** (2008). A comparison of four clustering methods for brain expression microarray data. *BMC Bioinformatics* 9, 490-490.
15. Packer, A.N., Xing, Y., Harper, S.Q., **Jones, L.**, and Davidson, B.L. (2008). The Bifunctional microRNA miR-9/miR-9*Regulates REST and CoREST and Is Downregulated in Huntington's Disease. *J Neurosci* 28, 14341-14346.