

Curriculum Vitae

Dr. Julian P. Venables



Date of Birth – 20.07.1962

Nationality - British

Research Interests – Alternative pre-mRNA Splicing

- Alternative splicing mechanisms and function.
- Role of alternative splicing in normal development (brain and muscle) and disease especially in epithelial to mesenchymal transition, stem cell differentiation and cancer.
- Application of genomewide technologies: RNA-Seq, splicing microarrays, high-throughput RT-PCR and computing to alternative splicing.
- Evolution of alternative splicing and the fixation of regulated alternative splices of functional importance.

Invited Seminars

Nov 2003	RIKEN Genomic Sciences Centre, Yokohama, Japan
Mar 2006	Alternative Splicing in Disease Symposium, Heidelberg, Germany
May 2006	European Society of Human Genetics, Amsterdam, Holland
Sept 2008	Massachusetts Institute of Technology, USA
July 2009	Biochemistry Department, Cambridge, UK
May 2010	Human Genome Meeting, Montpellier, France (plenary chair)
Oct 2010	EURASNET meeting, Curie Institute, Paris, France
Jan 2011	Rouen University, France
May 2011	South-Western RNA club, Exeter University, UK
May 2011	Bristol University, UK
May 2011	Institute of Human Genetics, Newcastle, UK
Dec 2013	National Institute of Cancer Research, Newcastle, UK

Grants written and obtained

- £48,000 (2005) from Newcastle Healthcare Charity
- 750,000 CAD (2007) from Canadian Breast Cancer Research Alliance
- £12,000 start-up funding (2012) from the Wellcome Trust Strategic Support Fund and £8,000 from the Faculty of Medicine.
- 100,000 Euros, Marie Curie Reintegration Grant FP7-PEOPLE-2013-CIG (October 2013)

Career History – including list of participation in research projects and academic achievements

April 2012-present	Principal Investigator, Institute of Genetic Medicine, Newcastle University.
Feb 2010-March 2012	Postdoctoral research and Consultant, Montpellier University, France with Professor Jamal Tazi including 6 months as Consultant for the Splicos Company. - Identification of the most conserved alternative splice event to date (Venables et al, 2012). - Discovery of a massive program of alternative splicing in embryonic and induced pluripotent stem cells and the RNA-binding proteins that control it (Venables et al, 2013b).
Feb 2007- Jan 2010	Research Professional, Sherbrooke University, Canada, with Professors Sherif Abou-Elela and Benoit Chabot. Scientific manager and data analyst in a high-throughput project to identify the alternative 'spliceome' of cancer. - First large-scale analysis of splicing in cancer and demonstration of the involvement of an RNA-binding protein in cancer (Venables et al, 2008a; Venables et al, 2009). - First large-scale analysis of the systems biology of splicing through knockdown of 87 RNA-binding proteins in 5 cell lines (Venables et al, 2013a; Venables et al, 2008b). - Team management, one of three supervisors for a group of over 20 personnel. Guidance of students, post-docs, bioinformaticians, molecular biology and hospital technicians.
June 2001-Jan 2007	Postdoctoral research, Newcastle University, with Professor David Elliott. - Further two-hybrid screens to discover the first example of splicing regulation by targeted proteasomal degradation (Venables et al, 2004). - Identification of the first RNA-binding protein and its splicing target 'cause and effect' in male germ cells (Venables et al, 2005). with Professor Timothy Goodship. - Solved the last outstanding Newcastle Hemolytic Uremic Syndrome family using RNA-based screening (Venables et al, 2006). with Professor Sir John Burn. - Developed a method to enrich alternatively spliced isoforms (Venables & Burn, 2006).
Jan 1999- May 2001	Postdoctoral research, Edinburgh University, with Professor Howard Cooke. - Developed a yeast three-hybrid screen to find targets of RNA-binding proteins in male germ cells. Discovered the binding motif for a Y-chromosome RNA-binding protein (Venables et al, 2001).
Oct 1995- Dec 1998	Doctorate, Leicester University, with Professor Ian Eperon. - Discovered a network of RNA-binding protein interactions in male germ cells including two new genes (Venables et al, 2000; Venables et al, 1999).
1992- 1995	B.Sc. 1 st Class in Biochemistry. Sussex University.

Research papers

(13 as first author and 4 as corresponding author)

1. Venables JP, Lapasset L, Gadea G, Fort P, Klinck R, Irimia M, Vignal E, Thibault P, Prinós P, Chabot B, Abou Elela S, Roux P, Lemaitre JM, Tazi J (2013) Nature Communications. 2013;4:2480. doi: 10.1038/ncomms3480. MBNL1 and RBFOX2 cooperate to establish an alternative splicing program involved in pluripotent stem cell differentiation.
2. Venables J.P., Brosseau, J.P., Gadea, G., Klinck, R., Prinós, P., Beaulieu, J.F., Lapointe, E., Durand, M., Thibault, P., Tremblay, K., Rousset, F., Tazi, J., Abou Elela, S., Chabot, B. (2013) RBFOX2 Is an Important Regulator of Mesenchymal Tissue-Specific Splicing in both Normal and Cancer Tissues. *Mol Cell Biol*, 33: 396-405
3. Venables, J.P., Vignal, E., Baghdiguian, S., Fort, P. and Tazi, J. (2012) Tissue-specific alternative splicing of Tak1 is conserved in deuterostomes. *Mol Biol Evol* 29, 261-9.
4. Venables, J.P., Klinck, R., Koh, C., Gervais-Bird, J., Bramard, A., Inkel, L., Durand, M., Couture, S., Froehlich, U., Lapointe, E. et al. (2009) Cancer-associated regulation of alternative splicing. *Nat Struct Mol Biol*, 16, 670-676.
5. Venables, J.P., Koh, C.S., Froehlich, U., Lapointe, E., Couture, S., Inkel, L., Bramard, A., Paquet, E.R., Watier, V., Durand, M. et al. (2008) Multiple and specific mRNA processing targets for the major human hnRNP proteins. *Mol Cell Biol*, 28, 6033-6043.
6. Venables, J.P., Klinck, R., Bramard, A., Inkel, L., Dufresne-Martin, G., Koh, C., Gervais-Bird, J., Lapointe, E., Froehlich, U., Durand, M. et al. (2008) Identification of alternative splicing markers for breast cancer. *Cancer Res*, 68, 9525-9531.
7. Klinck, R., Bramard, A., Inkel, L., Dufresne-Martin, G., Gervais-Bird, J., Madden, R., Paquet, E.R., Koh, C., Venables, J.P., Prinós, P. et al. (2008) Multiple alternative splicing markers for ovarian cancer. *Cancer Res*, 68, 657-663.
8. Sergeant, K.A., Bourgeois, C.F., Dalgliesh, C., Venables, J.P., Stevenin, J. and Elliott, D.J. (2007) Alternative RNA splicing complexes containing the scaffold attachment factor SAFB2. *J Cell Sci*, 120, 309-319.
9. Venables, J.P., Strain, L., Routledge, D., Bourn, D., Powell, H.M., Warwicker, P., Diaz-Torres, M.L., Sampson, A., Mead, P., Webb, M. et al. (2006) Atypical haemolytic uraemic syndrome associated with a hybrid complement gene. *PLoS Med*, 3, e431.
10. Venables, J.P. and Burn, J. (2006) EASI--enrichment of alternatively spliced isoforms. *Nucleic Acids Res*, 34, e103.
11. Thornton, J.K., Dalgliesh, C., Venables, J.P., Sergeant, K.A., Ehrmann, I.E., Lu, X., Saunders, P.T. and Elliott, D.J. (2006) The tumour-suppressor protein ASPP1 is nuclear in human germ cells and can modulate ratios of CD44 exon V5 spliced isoforms in vivo. *Oncogene*, 25, 3104-3112.
12. Morrison, A.A., Venables, J.P., Dellaire, G. and Ladomery, M.R. (2006) The Wilms tumour suppressor protein WT1 (+KTS isoform) binds alpha-actinin 1 mRNA via its zinc-finger domain. *Biochem Cell Biol*, 84, 789-798.
13. Venables, J.P., Bourgeois, C.F., Dalgliesh, C., Kister, L., Stevenin, J. and Elliott, D.J. (2005) Up-regulation of the ubiquitous alternative splicing factor Tra2beta causes inclusion of a germ cell-specific exon. *Hum Mol Genet*, 14, 2289-2303.
14. Venables, J.P., Dalgliesh, C., Paronetto, M.P., Skitt, L., Thornton, J.K., Saunders, P.T., Sette, C., Jones, K.T. and Elliott, D.J. (2004) SIAH1 targets the alternative splicing factor T-STAR for degradation by the proteasome. *Hum Mol Genet*, 13, 1525-1534.
15. Hyslop, L.A., Nixon, V.L., Lévasseur, M., Chapman, F., Chiba, K., McDougall, A., Venables, J.P., Elliott, D.J. and Jones, K.T. (2004) Ca(2+)-promoted cyclin B1 degradation in mouse oocytes requires the establishment of a metaphase arrest. *Dev Biol*, 269, 206-219.
16. Paronetto, M.P., Venables, J.P., Elliott, D.J., Geremia, R., Rossi, P. and Sette, C. (2003) Tr-kit promotes the formation of a multimolecular complex composed by Fyn, PLCgamma1 and Sam68. *Oncogene*, 22, 8707-8715.
17. Venables, J.P., Ruggiu, M. and Cooke, H.J. (2001) The RNA-binding specificity of the mouse Dazl protein. *Nucleic Acids Res*, 29, 2479-2483.

18. Venables, J.P., Elliott, D.J., Makarova, O.V., Makarov, E.M., Cooke, H.J. and Eperon, I.C. (2000) RBMY, a probable human spermatogenesis factor, and other hnRNP G proteins interact with Tra2beta and affect splicing. *Hum Mol Genet*, 9, 685-694.
19. Elliott, D.J., Venables, J.P., Newton, C.S., Lawson, D., Boyle, S., Eperon, I.C. and Cooke, H.J. (2000) An evolutionarily conserved germ cell-specific hnRNP is encoded by a retrotransposed gene. *Hum Mol Genet*, 9, 2117-2124.
20. Venables, J.P., Vernet, C., Chew, S.L., Elliott, D.J., Cowmeadow, R.B., Wu, J., Cooke, H.J., Artzt, K. and Eperon, I.C. (1999) T-STAR/ETOILE: a novel relative of SAM68 that interacts with an RNA-binding protein implicated in spermatogenesis. *Hum Mol Genet*, 8, 959-969.

Reviews (7 as corresponding author)

1. Venables, J.P., Tazi, J. and Juge, F. (2012) Regulated Functional alternative splicing in *Drosophila*. *Nucleic Acids Res*, 40, 1-10.
2. Venables, J.P. (2008) Enrichment of alternatively spliced isoforms. *Methods Mol Biol*, 419, 161-170.
3. Venables, J.P. (2007) Downstream intronic splicing enhancers. *FEBS Lett*, 581, 4127-4131.
4. Venables, J.P. (2006) Unbalanced alternative splicing and its significance in cancer. *Bioessays*, 28, 378-386.
5. Venables, J.P. (2004) Aberrant and alternative splicing in cancer. *Cancer Res*, 64, 7647-7654.
6. Venables, J.P. (2002) Alternative splicing in the testes. *Curr Opin Genet Dev*, 12, 615-619.
7. Venables, J.P. and Cooke, H.J. (2000) Lessons from knockout and transgenic mice for infertility in men. *J Endocrinol Invest*, 23, 584-591.
8. Venables, J.P. and Eperon, I. (1999) The roles of RNA-binding proteins in spermatogenesis and male infertility. *Curr Opin Genet Dev*, 9, 346-354.

Languages

- Fluent in spoken and written French
- Native English speaker.