

# **Curriculum Vitae: Anne Elizabeth Rosser**

**Current appointment:** Professor and Honorary Consultant, Dept of Neurology, School of Medicine, Cardiff University.

## **Qualifications (clinically qualified):**

1982	BA(Hons)	Cambridge University 1 <sup>st</sup> class	Medical Sciences with Anatomy
1985	PhD	Cambridge University	Neuroscience
1987	MB BChir	Cambridge University	Medicine and Surgery
1991	MRCP	Royal College Physicians	

## **Employment:**

- 1988-1991 House officer and Senior House officer rotations, Cambridge University Hospital  
1991-1992 Registrar in General Medicine, The Ealing Hospital, London  
1992-1993 Registrar in Neurology, Addenbrooke's Hospital  
1993-1994 Registrar in Neurology National Hospital Neurology, London  
1994-2000 MRC Clinician Scientist and Consultant in Neurology, Cambridge University  
2001-2003 Lister Institute Research Fellow, Honorary Consultant Neurologist, Cardiff University  
2003- Professor of Clinical Neuroscience and Honorary Consultant Neurologist, Cardiff University (HEFCW funded)

## **Prizes and awards**

- 1982 -87 Cambridge University: Elizabeth Walton prize for Medical Sciences; Grindley Fund Award; Old Girtonians Scholarship; William Harvey Scholarship; Harry Barkley Award; Eliot Slater Award (Psychiatry)  
1982: Anatomical Society of Great Britain Studentship.  
1994: MRC Clinician Scientist award  
2000: Lister Institute Clinical Research Fellow  
2004: Fellowship Royal College Physicians  
2006: Fellow Lister Institute of Preventive Medicine  
2012: Fellowship Learned Society Wales

## **Membership of societies.**

- Member of Association of British Neurologists  
Corresponding member of the American Neurological society (elected July 2012)  
Me Member European Network of CNS Transplantation and Repair (NECTAR)  
Member of the Movement Disorder Society  
Member Association of Physicians UK

## **Selected Current Academic activities**

- Co-Chair European Huntington's Disease Network (EHDN)  
Member of Enroll-HD (Global observational study of HD) scientific advisory board.  
Director Cardiff University Brain Repair Group  
Clinical lead for the South Wales Huntington's Disease Service  
Co-director the Wales Brain Repair and Intracranial Neurotherapeutics (B.R.A.I.N.) Unit  
Associate member Cardiff Dementia Research Institute  
Executive committee member Cardiff University Neuroscience and Mental Health Institute.  
Coordinator of EU FP7 project, Repair-HD  
MRC UK Neuroscience Board member  
MRC UK Regenerative Medicine Platform Board member

## **Research activities**

I am director of the Cardiff University Brain Repair Group (BRG), a multidisciplinary group which has as its focus the development of new therapies for neurodegenerative disease, in particular Huntington's disease. In the BRG we translate findings from molecular and cell, through whole animal studies right through to clinical translation. One example of this is cell replacement therapy, in which new cells are delivered through stereotaxic surgery into the part of the brain where cells are lost to the disease process. We have taken cell replacement therapy through to clinical application with an ongoing study (TRIDENT) which will deliver human medium spiny neuron (MSN) progenitors, derived from fetal tissue, into people with HD. An alternative to the use of human fetal donor cells is to derive MSN progenitors from human stem cells. I have worked on stem cells since 1994 and led the EU FP7 Consortium, Repair -HD, in which we sought to put all the necessary elements in place to undertake a first-in-man study of human embryonic stem (hES) cell derived donor cells for HD. Repair-HD has made substantial progress towards this goal in achieving: a protocol for the reliable differentiation of MSNs from hES cells and its translation to a GMP protocol; demonstration of their safety in rodent models of HD and preliminary evidence of their efficacy; increased understanding of immunological issues; progress towards improved methods of cell delivery into the brain; and a second generation assessment battery for clinical application (CAPIT-HD2).

With Leslie Thompson, UC Irvine, I have established a global platform to set standards for cell therapies in Huntington's (Stem Cells for HD International: SC4HDI).

I am also co-director of the Cardiff Brain Research And Intracranial Neurotherapeutics (B.R.A.I.N) Unit, in which we are developing the infrastructure and expertise to deliver novel therapies (cells, molecules, gene therapies) directly into the brain. HD is one of three key conditions prioritised in B.R.A.I.N.

## **Clinical activities**

I lead the South Wales Huntington's Disease multidisciplinary clinical team (<http://medicine.cf.ac.uk/psychological-medicine-neuroscience/areas-research/huntingtons-disease-centre/>) where we provide specialist care and advice for people from Huntington's disease families, including those who are manifest, premanifest gene carriers, individuals who are at-risk or gene negative. We are aware of the need to consider individuals holistically and that carers and families also need support. The clinics are based in Cardiff with outreach across South Wales.

The clinic is an Enroll-HD site and we undertake a range of both observational and interventional clinical studies (both academic-led and commercial). We have a special interest in cell replacement therapy, and along with Professor Monica Busse, physical and cognitive rehabilitation. I jointly led the development of a novel objective functional assessment tool (C3T; with Professor Monica Busse); novel psychiatric assessment tools (with Dr Duncan McLauchan); and novel eye movement assessment tools (with Professor Jon Erichsen). I organise regular engagement events for HD families, carers and the public.

## **Clinical Trial Leadership**

- *Co-PI:* Neural transplantation of human fetal tissue in HD – a multisite UK study.
- *UK CI:* Registry-HD
- *UK CI:* Enroll-HD
- *Site PI:* (and protocol management group) Amarin study (Ethyl-EPA) in HD
- *Site PI:* Analyses of A<sub>2A</sub>R and cholesterol in HD, conducted by University Milan
- *UK CI:* Neurosearch Phase III trial of ACR16 (Prodopidone) in HD
- *Site PI:* Sienna Biotech, Safety and Tolerability of SEN0014196A in HD
- *Site PI:* Novartis, Proof of Concept study of AFQ in HD
- *Site PI:* NIH, PREDICT-HD – a world wide study of progression markers in premanifest HD
- *PI:* Is the skeleton affected in Huntington's disease?

- *Clinical supervisor:* Respiratory Function in HD
- *Clinical supervisor:* Wellcome Trust, Cognitive rehabilitation in HD
- *Site PI:* CHDI, Cognitive Assessment Battery (CAB) Beta Study
- *Co-PI:* Welsh Government, Community supported exercise in HD
- *Steering group Member:* NISCHR, Engaging patients with HD in exercise (Engage-HD).
- *Co-PI:* Can eye movement abnormalities in HD track progression?
- *Site PI:* Teva, Phase 2 dosing study Pridopidine
- *UK CI:* Beta testing a new assessment battery for HD (CAPIT-HD2)
- *Site PI:* Ionis CS1 and CS2 studies
- *CI:* TRIal designs for DElivery of Novel Therapies for Neurodegeneration (TRIDENT)

### ***Current funding***

May 2018- 2021. MRC, UK (M Li and AE Rosser). How CTIP2 deficiency drives medium spiny neuron degeneration and dysfunction: implications in Huntington's disease pathogenesis, £885,084

Oct 2018-2022. H2020-MSCA-ITN-2018 (Marie Skłodowska-Curie Innovative Training Networks), Proposal number: 813851. Training for Advanced Stem Cell Technologies in Neurology ASCTN-Training. Coordinator J Canals (University Barcelona) Rosser and Allen at Cardiff University. £606,345 to Cardiff University

Sept 2017 – Sept 2019 Health and Care Research Wales: RfPPB-16a-1298 (AE Rosser CI). Trial designs for delivery of novel therapies for neurodegeneration (TRIDENT). £223,176

Sept 2017 – Sept 2019. Jacques and Gloria Gossweiler Foundation (Busse, Quinn, Rosser, Reilmann, Muratori, Kelson). Physical ACtivity and Exercise outcomes in Huntington's disease (PACE-HD). £411,000

June 2017-2020 Wellcome Trust (Integrated Neuroscience) (J Aggleton, M Li, A Rosser)

April 2017 – April 2019. Campaign for Alzheimer's Research in Europe (AE Rosser) Developing stem cell technologies for the neurodegeneration of Alzheimer's disease. £150, 000

June 2017-2020 Wellcome Trust (Integrated Neuroscience) (J Aggleton, L Jones, A Rosser), £16,842.70

Sept 1st 2016 – August 31st 2017 (M Busse-Morris, C Drew, A Rosser, C Holt, Y Hicks, K Hamana) Developing clinical applications for a novel multi-task functional assessment £49,902

April 2016 – Feb 2019: Gossweiler Foundation (AE Rosser, M Busse, E Yhnell, C Metzler-Baddeley). Exploring cognitive training as a non-pharmaceutical therapeutic intervention for people with Huntington's disease £94,952

Oct 2015-Oct 2016: MRC Confidence in concept (LA Jones, S Jackson, AE Rosser). Investigating the therapeutic potential of manipulating DNA repair in Huntington's disease. £17290

June 2015 – June 2020: National Institute for Social Care and Health Research Wales (NISCHR) (WP Gray, AE Rosser, Y Barde, M Busse, V Crunelli. SB Dunnett, R Tudor Edwards, P Eslambolchilar . K Hamandi, K Hood, D Jones. M Kerr, P Morgan, M Rees, N Robertson, M Wardle). Brain Repair And Intracranial Neurotherapeutics (B.R.A.I.N. unit) Wales. 1.4 million

June 2015 – June 2018: Medical Research Council UK (SB Dunnett, AE Rosser, C Sherf). Cardiff Fetal Tissue Bank: Quality assured human fetal tissue for biomedical research and clinical trial in neurodegenerative disease. £198,115

Oct 2013-March 2018: EU FP7 Repair-HD Collaborative research project Heath -2013-1.4-1. (AE Rosser (Coordinator), SB Dunnett, M Li and others). REPAIR-HD: Human pluripotent stem cell differentiation, safety and preparation for therapeutic transplantation in Huntington's disease. £6,000 000 (Cardiff component £2,200 000).

## **Publications over the last 5 years**

Roberton VH, Evans AE, Harrison DJ, Precious SV, Dunnett SB, Kelly CM, Rosser AE. Is the adult mouse striatum a hostile host for neural transplant survival? *Neuroreport*. 2013 24(18):1010-5.

Khalil H, Quinn L, van Deursen R, Dawes H, Playle R, Rosser A, Busse M. What effect does a structured home-based exercise programme have on people with Huntington's disease? A randomized, controlled pilot study. *Clin Rehabil*. 2013 27(7):646-58.

Barker RA, Harrower TP, Mason SL, Swain RA, Ho AK, Sahakian BJ, Mathur R, Elneil S, Tyers P, Smith E, Carpenter A, Piccini P, Tai YF, Brooks DJ, Pavese N, Watts C, Pickard JD, Rosser AE, Dunnett SB, and the NEST-UK collaboration. The long term safety and efficacy of bilateral transplantation of human foetal striatal tissue in patients with mild to moderate Huntington's disease. *J Neurol Neurosurg Psychiatry*. 2013, 84(6):657-665.

Squitieri F, Landwehrmeyer B, Reilmann R, Rosser AE, de Yebenes JG, Prang A, Ivkovic J, Bright J, Rembratt A. One-year safety and tolerability profile of pridopidine in patients with Huntington disease. *Neurology*. 2013 80(12):1086-94.

Lelos MJ, Harrison DJ, Rosser AE, Dunnett SB. The lateral neostriatum is necessary for compensatory ingestive behaviour after intravascular dehydration in female rats. *Appetite*. 2013 14;71C:287-294.

Harrison DJ, Busse M, Openshaw R, Rosser AE, Dunnett SB, Brooks SP. Exercise attenuates neuropathology and has greater benefit on cognitive than motor deficits in the R6/1 Huntington's disease mouse model. *Exp Neurol*. 2013 248:457-69.

Busse M, Quinn L, DeBono K, Jones K, Collett J, Playle R, Kelly MJ, Simpson SA, Backx K, Wasley D, Dawes H, Rosser AE, and the members of the COMMET-HD management group .A Randomized Feasibility Study of a 12-week Community-based Exercise Program in people with Huntington's Disease. *J Neurol Phys Ther*. 2013 37(4):149-58.

Brennan SC, Finney BA, Lazarou M, Rosser AE, Scherf C, Adriaensen D, Kemp PJ, Riccardi D. Fetal calcium regulates branching morphogenesis in the developing human and mouse lung: involvement of voltage-gated calcium channels. *PLoS One*. 2013 25;8(11)

Dalton A, Khalil H, Busse M, Rosser AE, van Deursen R, Ólaighin G. Analysis of gait and balance through a single triaxial accelerometer in presymptomatic and symptomatic Huntington's disease. *Gait and Posture* 2013 37(1):49-54.

Varma S, Mahavadi P, Sasikumar S, Cushing L, Hyland T, Rosser AE, Riccardi D, Lu J, Kalin TV, Kalinichenko VV, Guenther A, Ramirez MI, Pardo A, Selman M, Warburton D. Graniyheadlike 2 Distribution Reveals Novel Pathophysiological Differences Between Human Idiopathic Pulmonary Fibrosis and Mouse Models of Pulmonary Fibrosis. *Am J Physiol Lung Cell Mol Physiol*. 2014 306(5):L405-19

Rinaldi F, Hartfield EM, Crompton LA, Badger JL, Glover CP, Kelly CM, Rosser AE, Uney JB, Caldwell MA. Cross-regulation of Connexin43 and β-catenin influences differentiation of human neural progenitor cells. *Cell Death Dis*. 2014 5:e1017.

Collett J, Esser P, Khalil H, Busse M, Quinn L, DeBono K, Rosser AE, Nemeth AH, Dawes H. Insights into gait disorders: Walking variability using phase plot analysis, Huntington's disease. *Gait Posture*. 2014 40(4):694-700.

Busse M, Quinn L, Dawes H, Jones C, Kelson M, Poile V, Trubey R, Townson J, Edwards RT, Rosser AE, Hood K. Supporting physical activity engagement in people with Huntington's disease (ENGAGE-HD): study protocol for a randomized controlled feasibility trial. *Trials*. 2014 12;15:487

Quinn L, Debono K, Dawes H, Rosser AE, Nemeth AH, Rickards H, Tabrizi SJ, Quarrell O, Trender-Gerhard I, Kelson MJ, Townson J, Busse M; members of the TRAIN-HD project group. Task-specific training in Huntington disease: a randomized controlled feasibility trial. *Phys Ther*. 2014 94(11):1555-68.

Paulsen, J. S., Johnson, H. J., Aylward, E. H., Ross, C. A., Williams, J. K., Nance, Rosser, AE, Hunt, S., Jankovic, J., Ondo, W., Martin, W., King, P., Wieler, M., Sran, S., de Yébenes, J. G. and

Dubinsky, R. 2014. Clinical and biomarker changes in premanifest Huntington disease show trial feasibility: A decade of the PREDICT-HD study. *Frontiers in Aging Neuroscience* 6, 78. 10.3389/fnagi.2014.00078

Rosser AE and Dunnett SB 2014. Cell therapy for Huntington's Disease. *Advanced Clinical Neuroscience Rehabilitation* 34 (5):18-21.

Hrastelj J, McLauchlan D, Clenaghan C, Rosser A. Hypercalcaemia mimicking Huntington's disease: lessons learned from delayed diagnosis. *J R Coll Physicians Edinb.* 2014;44(4):286-8.

Jones K, Debono K, Quinn L, Rosser A, Busse M. Physiotherapy task orientated approach: A case report. *Journal of neurology, neurosurgery and psychiatry* Volume:85Number:1

Metzler-Baddeley C, Cantera J, Coulthard E, Rosser A, Jones DK, Baddeley RJ. Improved Executive Function and Callosal White Matter Microstructure after Rhythm Exercise in Huntington's Disease. *J Huntington's Dis.* 2014;3(3):273-83.

Reddington AE, Rosser AE, Dunnett SB. Differentiation of pluripotent stem cells into striatal projection neurons: a pure MSN fate may not be sufficient. *Front Cell Neurosci.* 2014 2;8:398.

Dunnett SB, Rosser AE. Challenges for taking primary and stem cells into clinicalneurotransplantation trials for neurodegenerative disease. *Neurobiol Dis.* 2014 61:79 89.

Reilmann R, Rouzade-Dominguez ML, Saft C, Süssmuth SD, Priller J, Rosser A, Rickards H, Schöls L, Pezous N, Gasparini F, Johns D, Landwehrmeyer GB, Gomez-Mancilla B.A randomized, placebo-controlled trial of AFQ056 for the treatment of chorea in Huntington's disease. *Mov Disord.* 2015 30(3):427-31.

Rosser AE, Svendsen CN Stem cells for cell replacement therapy: a therapeutic strategy for HD? *Mov Disord.* 2014 15;29(11):

Dawes H, Collett J, Debono K, Quinn L, Jones K, Kelson MJ, Simpson SA, Playle R, Backx K, Wasley D, Nemeth AH, Rosser A, Izardi H, Busse M. Exercise testing and training in people with Huntington's disease. *Clin Rehabil.* 2015 29(2):196-206.

Arber C, Precious SV, Cambray S, Risner-Janiczek JR, Kelly C, Noakes Z, Fjodorova M, Heuer A, Ungless MA, Rodriguez TA, Rosser AE, Dunnett SB, and Li M. Activin A directs striatal projection neuron differentiation of human pluripotent stem cells. *Development* 2015 142(7):1375-86.

Ferreira JJ, Rosser AE, Craufurd D, Squiteri F, Morgan C, McGregor K, Mallard M, Landwehrmeyer GB on behalf of Ethyl-EPA study Investigators, Ethyl-EPA treatment in Huntington's disease – a placebo-controlled CLINICAL TRIAL, *Mov Disord.* 2015 30(10):1426-9

Wojtecki L, Groiss SJ, Ferrea1 S, Saskia E, Christian JH, Dunnett SB, Rosser AE, Saft C, Südmeier M, Ohmann C, Schnitzler A, Vesper J and for the Surgical Approaches Working Group of the European Huntington's Disease Network (EHDN)† A prospective pilot trial for pallidal deep brain stimulation in Huntington's disease. *Frontiers in Neurology* 2015 18;6:177

Reilmann, Rouzade-Dominguez M, Saft C, Süssmuth S, Priller J, Rosser AE, Rickards H, Schöls L, Pezous N, Gasparini F, Johns D, Landwehrmeyer GB, Gomez-Mancilla B. A Randomized Placebo-Controlled Proof-of-Concept Study to Assess the Efficacy, Safety and Tolerability of the Metabotropic Glutamate Receptor 5 Antagonist AFQ056 for the Treatment of Chorea in Huntington's Disease. *Mov Disord.* 2015 30(3):427-31.

Steventon JJ, Harrison DJ, Trueman RC, Rosser AE, Jones DK, Brooks SP. In Vivo MRI Evidence that Neuropathology is Attenuated by Cognitive Enrichment in the Yac128 Huntington's Disease Mouse Model. *J Huntingtons Dis.* 2015 1;4(2):149-160.

Steventon JJ, Trueman RC, Rosser AE, Jones DK.. Robust MR-based approaches to quantifying white matter structure and structure/function alterations in Huntington's disease. *J Neurosci Methods.* 2015 Sci Rep. 2016 6:32423.

Straccia M, Garcia-Diaz Barriga G, Sanders P, Bombau G, Carrere J, Vinh N, Yung S, Kelly C, Svendsen C, Kemp P, Arjomand J, Schoenfeld, R Alberch J, Allen N, and Rosser AE, Canals J. Quantitative high throughput gene expression profiling of human striatal development to screen stem cells derived medium spiny neurons. *Mol Ther Methods Clin Dev.* 2015 16;2:15030.

Newland B, Welzel PB, Newland H, Renneberg C, Kolar P, Tsurkan M, Rosser A, Freudenberg U, Werner C. Tackling Cell Transplantation Anoikis: An Injectable, Shape Memory Cryogel Microcarrier Platform Material for Stem Cell and Neuronal Cell Growth. *Small*. 2015;11(38):5047-53.

Roberton VH, Rosser AE, Kelly CM. Neonatal desensitization for the study of regenerative medicine. *Regen Med*. 2015;10(3):265-74.

Liu D, Long JD, Zhang Y, Raymond LA, Marder K, Rosser A, McCusker EA, Mills JA, Paulsen JS. Motor onset and diagnosis in Huntington disease using the diagnostic confidence level. *Journal of Neurology* 262(12) 2691-8.wo

McCourt AC, O'Donovan KL, Ekblad E, Sand E, Craufurd D, Rosser A, Sanders D, Stoy N, Rickards H, Wierup N, Bates GP, Björkqvist M, Quarrell O. Characterization of Gastric Mucosa Biopsies Reveals Alterations in Huntington's Disease. *PLoS Curr*. 2015 Jun 26;7.

Newland B, Hüther H, Rosser A, and Wang W. Prospects for Polymer Therapeutics in Parkinson's Disease and Other Neurodegenerative Disorders, *Polymer Science* 2015 44:79-112

Steventon JJ, Harrison DJ, Trueman RC, Rosser AE, Jones DK, Brooks SP. In Vivo MRI Evidence that Neuropathology is Attenuated by Cognitive Enrichment in the Yac128 Huntington's Disease Mouse Model. *J Huntington's Dis*. 2015;4(2):149-60.

Lewis O, Woolley M, Johnson D, Rosser A, Barua NU, Bienemann AS, Gill SS, Evans S. Chronic, intermittent convection-enhanced delivery devices. *J Neurosci Methods*. 2015 Nov 23;259:47-56.

Breydo L, Newland B, Zhang H, Rosser A, Werner C, Uversky VN, Wang W. A hyperbranched dopamine-containing PEG-based polymer for the inhibition of  $\alpha$ -synuclein fibrillation. *Biochem Biophys Res Commun*. 2016 Jan 22;469(4):830-5.

Newland B, Wolff P, Zhou D, Wang W, Zhang H, Rosser A, Wang W, Werner C. Synthesis of ROS scavenging microspheres from a dopamine containing poly( $\beta$ -amino ester) for applications for neurodegenerative disorders. *Biomater Sci*. 2016 Mar;4(3):400-4.

Townhill J, Hughes AC, Thomas B, Busse ME, Price KA, Dunnett SB, Hastings MH, and Rosser AE. Using Actiwatch to monitor circadian rhythm disturbance in Huntington' disease: a cautionary note. *J Neurosci Methods*. 2016 May 30;265:13-8.

Lelos MJ, Morgan RJ, Kelly CM, Torres EM, Rosser AE, Dunnett SB. Amelioration of non-motor dysfunctions after transplantation of human dopamine neurons in a model of Parkinson's disease. *Exp Neurol*. 2016 278:54-61.

Lelos MJ, Roberton VH, Vinh NN, Harrison C, Eriksen P, Torres EM, Clinch SP, Rosser AE, Dunnett SB. Direct Comparison of Rat- and Human-Derived Ganglionic Eminence Tissue Grafts on Motor Function. *Cell Transplant*. 2016;25(4):665-75.

Quinn L, Trubey R, Gobat N, Dawes H, Edwards RT, Jones C, Townson J, Drew C, Kelson M, Poile V, Rosser A, Hood K, Busse M. Development and Delivery of a Physical Activity Intervention for People With Huntington Disease: Facilitating Translation to Clinical Practice. *J Neurol Phys Ther*. 2016 40(2):71-80.

Precious SV, Kelly CM, Reddington AE, Vinh NN, Stickland RC, Pekarik V, Scherf C, Jeyasingham R, Glasbey J, Holeiter M, Jones L, Taylor MV, Rosser AE. FoxP1 marks medium spiny neurons from precursors to maturity and is required for their differentiation. *Exp Neurol*. 2016 282:9-18.

Jones U, Busse M, Enright S, Rosser A. Respiratory decline is integral to disease progression in Huntington's disease. *European Respiratory Journal* 2016 Eur Respir J. 2016 48(2):585-8

Quinn L, Hamana K, Kelson M, Dawes H, Collett J, Townson J, Roos R, van der Plas A, Reilmann R, Frich J, Rickards H, Rosser A, Busse M. A randomized, controlled trial of a multi-modal exercise intervention in Huntington's Disease. *Parkinsonism and Related Diseases* 2016 31:46-52.

Straccia M, Carrere J, Rosser AE, and Canals JM. Human t-DARPP is induced during striatal development. *Neuroscience*. 2016 1;333:320-30 3.2

Fritz NE, Hamana K, Kelson M, Rosser A, Busse M, Quinn L. Motor-cognitive dual-task deficits in individuals with early-mid stage Huntington's disease. *Gait Posture*. 2016 49:283-9

Jones C, Busse M, Quinn L, Dawes H, Drew C, Kelson M, Hood K, Rosser A, Edwards RT. The societal cost of Huntington's disease: are we underestimating the burden? *Eur J Neurol.* 2016 23(10):1588-90

Precious SV, Kelly CM, Allen ND and Rosser AE. Can manipulation of differentiation conditions eliminate proliferative cells from a population of ES cell-derived forebrain cells? *Neurogenesis* 2016 11;3(1):e1127311.

Steventon J, Trueman RC, Ma D, Yhnell E, Bayram-Weston Z, Modat M, Cardoso J, Ourselin S, Lythgoe M, Stewart A, Rosser AE, and Jones D. Longitudinal in vivo MRI in a Huntington's disease mouse model: Global atrophy in the absence of white matter microstructural damage. *Sci Rep. (Nature)* 2016; 6: 32423. 4,3

Busse M, Quinn L, Drew C, Kelson M, Trubey R, McEwan K, Jones C, Townson J, Dawes H, Tudor-Edwards R, Rosser A, Hood K. Physical Activity Self-Management and Coaching Compared to Social Interaction in Huntington Disease: Results From the ENGAGE-HD Randomized, Controlled, Pilot Feasibility Trial. *Phys Ther.* 2017 Mar 24. doi: 10.1093/ptj/pzx031. [Epub ahead of print]

Drew CJG, Poile V, Trubey R, Watson G, Kelson M, Townson J, Rosser A, Hood K, Quinn L, and Busse M. Integrating technology into complex intervention trial processes: A Case Study Trials. 2016 17(1):551

Martín-Ibáñez R, Guardia I, Pardo M, Herranz C, Zietlow R, Vinh NN, Rosser A, Canals JM. Insights in spatio-temporal characterization of human fetal neural stem cells *Exp Neurol.* 2017 291:20-35.

Precious SV, Zietlow R, Dunnett SB, Kelly CM, Rosser AE. Is there a place for human fetal-derived stem cells for cell replacement therapy in Huntington's disease? *Neurochem Int.* 2017 106:114-121

Drew CJ, Poile V, Trubey R, Watson G, Kelson M, Townson J, Rosser A, Hood K, Quinn L, Busse M. Integrating technology into complex intervention trial processes: a case study. *Trials.* 2016 17(1):551.

Busse M, Quinn L, Drew C, Kelson M, Trubey R, McEwan K, Jones C, Townson J, Dawes H, Tudor Edwards R, Rosser A, Hood K. Physical activity self-management and coaching compared to social interaction in Huntington's disease? Results from the ENGAGE-HD randomized, controlled, pilot feasibility trial. *Phys Ther.* 2017 Mar 24. doi: 10.1093/ptj/pzx031. [Epub ahead of print]

Dunnett SB, Rosser AE. Reprogramming the diseased brain. *Nat Biotechnol.* 2017 May 9;35(5):426-428.

Li M, Rosser AE. Pluripotent stem cell-derived neurons for transplantation in Huntington's disease. *Prog Brain Res.* 2017;230:263-281. doi: 10.1016/bs.pbr.2017.02.009. Epub 2017 May 2.

Bourbon-Teles J; Bells S; Jones DK; Coulthard E; Rosser AE; Metzler-Baddeley C. Myelin breakdown in human Huntington's disease: Multi-modal evidence from diffusion MRI and quantitative magnetization transfer. *Neuroscience.* 2017 Jun 1. pii: S0306-4522(17)30376-7. doi: 10.1016/j.neuroscience.2017.05.042. [Epub ahead of print] 3.2

Fritz NE, Hamana K, Kelson M, Rosser A, Busse M, Quinn L. Motor-cognitive dual-task deficits in individuals with early-mid stage Huntington disease. *Gait Posture.* 2016 49:283-289.

van de Zande NA, Massey TH, McLauchlan D, Pryce Roberts A, Zutt R, Wardle M, Payne G, Clenaghan C, Tijssen MAJ, Rosser AE, Peall KJ. Clinical Characterisation of Dystonia in Patients with Huntington's Disease. *Eur J Neurol.* 2017 24(9):1140-1147

Yhnell E, Furby H, Breen RS, Brookes-Howell LC, Drew CJG, Playle R, Watson G, Metzler-Baddeley C, Rosser AE, Busse ME. Exploring computerised cognitive training as a therapeutic intervention for people with Huntington's disease (CogTrainHD): protocol for a randomised feasibility study. *Pilot Feasibility Stud.* 2018 6;4:45.

Ferreia S, Groiss SJ, Elben S, Hartmann CJ, Petri D, Dunnett S, Rosser A, Saft C, Schnitzler A, Vesper J, Wojtecki L, for the Surgical Approaches Working Group of the European Huntington's

Disease Network (EHDN). Pallidal Deep Brain Stimulation in juvenile Huntington's disease: Local Field Potential Oscillations and Clinical Data. Submitted Movement Disorders. J Neurol. 2018 May 3. doi: 10.1007/s00415-018-8880-1. [Epub ahead of print]

Harrison DJ, Roberton VH, Vinh N, Brooks SP, Dunnett SB, and Rosser AE The effect of tissue preparation and donor age on striatal graft morphology in mouse. Cell Transplantation in press.

Clinch SP, Busse ME, Lelos MJ and Rosser AE. Rethinking functional outcome measures to assess basal ganglia dysfunction. Frontiers in Neuroscience in press.

Bennasar M, Hicks YA, Clinch SP, Jones P, Holt C, Rosser AE and Busse ME. Automated Assessment of Movement Impairment in Huntington's Disease. In press IEEE

Telezhkin V, Straccia M, Yarova P, Pardo M, Yung S, Vinh N, Hancock JM, Garcia-Diaz Barriga G, Brown DA, Rosser AE, Brown JT, Canals JM, Randall AD, Allen ND, Kemp PJ. Kv7 channels are upregulated during striatal neuron development and promote maturation of human iPSC-derived neurons" Pflügers Archiv - European Journal of Physiology in press.

Rowlands S, Rosser AE, Dunnett SB eds. Methods in Molecular Neuroscience: Huntington's Disease (Book) *in press*