

Curriculum Vitae of Robert John Michael Webster Howard

Current posts

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Education

Cambridge University	1982	BA Zoology
London University	1985	MB BS
Royal College of Psychiatrists	1990	MRCPsych.
London University	1995	MD

Previous appointments

1985-1986	House Physician and Surgeon, St Bartholomew's Hospital, London
1986-1988	Senior House Officer Medicine, Selly Oak Hospital, Birmingham
1988-1990	Registrar in Psychiatry, Maudsley Rotational Scheme
1991	Senior Registrar, Maudsley Rotational Scheme
1991-1994	Lecturer in Old Age Psychiatry, Institute of Psychiatry
1994-1999	Senior Lecturer in Old Age Psychiatry, Institute of Psychiatry
1999-2002	Reader in Old Age Psychiatry and Psychopathology, Institute of Psychiatry
2002-2015	Professor of Old Age Psychiatry, King's College London

Current research

1. Large-scale independent randomised clinical trials. I design and conduct independent multicentre trials that address simple questions of importance to clinicians. Chief Investigator on two MRC-funded trials: Cholinesterase Inhibitor and Atypical Antipsychotic in the Management of Agitation in Dementia (CALM-AD) and Donepezil and Memantine in Moderate to Severe Alzheimer's Disease (DOMINO), two HTA-funded trials: Antipsychotic Treatment in Very-Late-Onset Schizophrenia-like Psychosis (ATLAS) and Assistive Technology and Telecare in Independent Living in Alzheimer's Disease (ATTILA), and one EME-funded trial: Minocycline in Alzheimer's Disease Efficacy Trial (MADE). I am UK Chief Investigator for the Nilvadipine in Alzheimer's Disease Trial (NILVAD). I Chair the IDMC for the EFFECT-Dep Trial (ISRCTN23577151). I am currently working to develop an adaptive, multi-arm multistage disease modification trial in AD (MARMALADE).

2. Psychosis in late life. As a result of my work on very late-onset schizophrenia-like psychosis there is now international agreement on diagnosis and nomenclature, good prognosis with treatment, the significance of phenomena such as partition delusions and complex visual hallucinations has been recognised and increasing age, family history of affective disorder, membership of a migrant group and the presence of theory of mind deficits have been added to the long-established risk factors of female sex and sensory impairment.

3. Innovative applications of imaging to psychosis and dementia. We were first to demonstrate real time cerebral activity underpinning the experience of auditory and visual hallucinations and relate this to the specific content of hallucination. We were also first to demonstrate the neural basis of functional compensation in patients with early Alzheimer's

disease using paradigms to overcome important confounds of relative task difficulty and performance effects. I currently supervise two funded clinical fellows who are investigating reorganisation of cortical activity during successful memory training in AD with fMRI supported by the MRC and a Clinical Senior Lecturer who holds an NIHR Clinician Scientist Fellowship to use PET to rationalise antipsychotic treatment in older people with psychosis and dementia. I supervise 3 ACFs who are preparing MRC and Wellcome Trust Training Fellowships to study microglial activation in AD with PET, association of PET-visualised Tau deposition with the presence of delusions and hallucinations in AD, and hippocampal neurogenesis during recovery from late life depression using structural and functional MRI.

Clinical work. I provide consultant input to a Community Mental Health Team for older people in Camden.

Postgraduate education in Psychiatry. I was College Tutor and Scheme Organiser for the Maudsley SHO rotational training scheme (1995-2004). During this period the scheme grew from 44 to 93 trainees with enlargement of the Trust and the acquisition of posts from part of the neighbouring Oxleas NHS Trust. From 2003 to 2006 I was the RCPsych SHO Convenor for Wessex and the South-West and a member of the Basic Training Specialist Advisory Committee. I was SLAM Specialty Tutor for Old Age Psychiatry 2006-2008. From 2006-2008 I chaired the RCPsych Old Age Faculty Education and Curriculum Committee. I was a trained Postgraduate Medical Education and Training Board visitor and led PMETB/GMC approval visits from 2006-2009. Member of MRCPsych Paper 2 Basic Sciences Panel 2007-2008. From 2008 to 2011 I was Dean of the Royal College of Psychiatrists, a post of leadership of training and professional standards in Psychiatry for the UK. As Dean I introduced and led national selection to entry to specialty training in Psychiatry in 2009, the development and PMETB/GMC acceptance of a new competency-based core and specialist training curriculum in Psychiatry, roll-out of the new MRCPsych examination, the profession's preparation for revalidation and recertification and a major campaign of engagement with medical students and Foundation Programme trainees in response to the recruitment crisis in the specialty.

Selected research published in peer reviewed journals

Santhouse A, Howard R, ffytche DH (2000) Visual hallucinatory syndromes and the anatomy of the visual brain. *Brain* 123 2055-2064.

Howard R, Rabins P, Seeman M, Jeste D (2000) Late-onset schizophrenia and very late-onset schizophrenia-like psychosis: An international consensus. *American Journal of Psychiatry* 157 172-178.

Blackwood NJ, Howard RJ, Bentall RP, Murray RM (2001) Cognitive neuropsychiatric models of persecutory delusions. *American Journal of Psychiatry* 158 527-539.

Gormley N, Lyons D, Howard R (2001) Behavioural management of aggression in dementia: a randomised controlled trial. *Age and Ageing* 30 141-145.

Reeves SJ, Sauer J, Stewart R, Granger A, Howard R (2001) Increased first contact rates for very late-onset schizophrenia-like psychosis in Caribbean-born elders. *British Journal of Psychiatry* 179 172-174.

Howard R, Ballard C, O'Brien J, Burns A (2001) Guidelines for the management of agitation in dementia. *International Journal of Geriatric Psychiatry* 16 714-717.

Ballard C, Fossey J, Chitramohan R, Howard R, Burns A, Thompson P, Tadros G, Fairbairn A (2001) Quality of care in private sector and NHS facilities for people with dementia: a cross-sectional study. *British Medical Journal* 323 426-427.

Jones DK, Williams SCR, Gasston D, Horsfield MA, Simmons A, Howard R (2002) Isotropic resolution diffusion tensor imaging with whole brain acquisition in a clinically acceptable time. *Human Brain Mapping* 15 216-230.

- Catani M, Howard R, Pajevic S, Jones DK (2002) Virtual in vivo interactive dissection of white matter fasciculi in the human brain. *NeuroImage* 17 77-94.
- Dalgleish T, Yiend J, Bramham J, Teasdale JD, Ogilvie AD, Malhi G, Howard R (2004) Neuropsychological processing associated with recovery from depression following stereotactic subcaudate tractotomy. *American Journal of Psychiatry* 161 1913-1916.
- Tabet N, Hudson S, Sweeney V, Sauer J, Bryant C, MacDonald A, Howard R (2005) An educational intervention can prevent delirium on acute medical wards. *Age and Ageing* 34 152-156.
- Gould RL, Brown RG, Owen AM, Bullmore ET, Williams SC, Howard RJ (2005) Functional anatomy of successful paired associate learning in Alzheimer's disease. *American Journal of Psychiatry* 162 2049-2060.
- Jones DK, Catani M, Pierpaoli C, Reeves SJ, Shergill SS, O'Sullivan M, Malley JD, Maguire P, Horsfield MA, Simmons A, Williams SCR, Howard RJ (2005) A diffusion tensor magnetic resonance imaging study of frontal cortex connections in very late-onset schizophrenia-like psychosis. *American Journal of Geriatric Psychiatry* 13 1092-1099.
- Jones DK, Catani M, Pierpaoli C, Reeves SJ, Shergill SS, O'Sullivan M, Malley JD, Maguire P, Horsfield MA, Simmons A, Williams SCR, Howard RJ (2006) Age effects on diffusion tensor magnetic resonance imaging tractography measures of frontal cortex connections in schizophrenia. *Human Brain Mapping* 27 230-238.
- Gould RL, Arroyo B, Brown RG, Owen AM, Bullmore ET, Howard RJ (2006) Functional compensation during successful paired associate learning in Alzheimer's disease. *Neurology* 67 1011-1017.
- Sauer J, ffytche DH, Brown R, Ballard CG, Howard R (2006) Differences between Alzheimer's disease and dementia with Lewy bodies: an fMRI study of task-related brain activity. *Brain* 129 1780-1788.
- Moore R, Blackwood N, Corcoran R, Rowse G, Kinderman P, Bentall R, Howard R (2006) Misunderstanding the intentions of others: An exploratory study of the cognitive aetiology of persecutory delusions in very-late-onset schizophrenia-like psychosis. *American Journal of Geriatric Psychiatry* 14 410-418.
- Ballard C, Howard R (2006) Neuroleptic drugs in dementia: benefits and harm. *Nature Reviews Neuroscience* 7 492-500.
- Fossey J, Ballard C, Juszcak E, James I, Alder N, Jacoby R, Howard R (2006) Enhanced psychosocial care reduces the use of antipsychotic medication in people with severe dementia resident in nursing homes: A cluster randomised trial. *British Medical Journal* 332 756-761.
- Eranti S, Mogg A, Pluck G, Landau S, Purvis R, Brown R, Howard R, Knapp M, Philpot M, Rabe-Hesketh S, Romeo R, Rothwell J, Edwards D, McLoughlin D (2007) A randomized controlled trial with six month follow-up of repetitive transcranial magnetic stimulation and electroconvulsive therapy for severe depression. *American Journal of Psychiatry* 164 73-81.
- Shergill SS, Kanaan RA, Chitnis X, O'Daly O, Jones DK, Frangou S, Williams SCR, Howard RJ, Barker GJ, Murray RM, McGuire P (2007) A diffusion tensor imaging study of fasciculi in schizophrenia. *American Journal of Psychiatry* 164 467-473.
- Howard R, Juszcak E, Ballard C, Bentham P, Brown RG, Bullock R, Burns A, Holmes C, Jacoby R, Johnson T, Knapp M, Lindsay J, O'Brien J, Wilcock G, Katona C, Jones R, DeCesare J, Rodger M on behalf of the CALM-AD Trial Group (2007) Donepezil in the treatment of agitation in Alzheimer's disease. *New England Journal of Medicine* 357 1382-1392.
- Reeves S, Brown R, Howard R, Grasby P (2009) Increased striatal dopamine (D2/D3) receptor availability and delusions in Alzheimer's disease. *Neurology* 72 528-534.
- Bentall RP, Rowse G, Shryane N, Kinderman P, Howard R, Blackwood N, Moore R, Corcoran R (2009) The phenomenology and cognitive structure of paranoid delusions: A transdiagnostic investigation of patients with schizophrenia spectrum disorders and depression. *Archives of General Psychiatry* 66 236-247.
- Ballard C, Brown R, Fossey J, Douglas S, Bradley P, Hancock J, James I, Juszcak E, Bentham P, Burns A, Lindsay J, Jacoby R, O'Brien J, Bullock R, Johnson T, Holmes C, Howard R (2009) Brief psychosocial therapy for the treatment of agitation in Alzheimer disease (The CALM-AD Trial). *American Journal of Geriatric Psychiatry* 17 726-733.

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Huntley J, Bor D, Hampshire A, Owen A, Howard R (2011) Working memory task performance and chunking in early Alzheimer's disease. *British Journal of Psychiatry* 198 398-403.

Howard R, McShane R, Lindsay J, Ritchie C, Baldwin A, Barber R, Burns A, Denning T, Finlay D, Holmes C, Hughes A, Jacoby R, Jones R, Jones RW, O'Brien JT, Passmore P, Sheehan B, Juszcak E, Katona C, Hills R, Knapp M, Ballard C, Brown R, Banerjee S, Onions C, Griffin M, Adams J, Gray R, Johnson T, Bentham P, Phillips P (2012) Donepezil and memantine in moderate to severe Alzheimer's disease. *New England Journal of Medicine* 366 893-903.

Gould RL, Coulson MC, Howard RJ (2012) Efficacy of cognitive behavioural therapy for anxiety disorders in older people: a meta-analysis and meta-regression of randomized controlled trials. *Journal of the American Geriatrics Society* 60 218-229.

Reeves SJ, Gould RL, Powell JF, Howard RJ (2012) Origins of delusions in Alzheimer's disease. *Neuroscience and Biobehavioural Reviews* 36 2274-2287.

Gould RL, Coulson MC, Patel N, Highton-Williamson E, Howard RJ (2014) Interventions for reducing benzodiazepine use in older people: meta-analysis of randomized controlled trials. *British Journal of Psychiatry* 204 98-107.

Pujol N, Penades R, Junque C, Dinov I, Fu CH, Catalan R, Ibarretxe-Bilbao N, Bargallo N, Bernardo M, Toga A, Howard R, Costafreda SG (2014) Hippocampal abnormalities and age in chronic schizophrenia: morphometric study across the adult lifespan. *British Journal of Psychiatry* 205 369-375.

Cummings J, Mintzer J, Brodaty H, Sano M, Banerjee S, Devanand DP, Gauthier S, Howard R, Lanctot K, Lyketsos CG, Peskind E, Portsteinsson AP, Reich E, Sampaio C, Steffens D, Wortmann M, Zhong K (2014) Agitation in cognitive disorders: International Psychogeriatric Association provisional consensus clinical and research definition. *International Psychogeriatrics* 27 7-17.

Marchant NL, Howard R (2014) Cognitive debt and Alzheimer's disease. *Journal of Alzheimer's Disease* 44 755-770.

Huntley JD, Gould RL, Liu K, Smith M, Howard R (2015) Do cognitive interventions improve general cognition in dementia? A meta-analysis and meta-regression. *BMJ Open* 5: e005247.

Sood S, Gallagher IJ, Lunnon K, Rullman E, Keohane A, Crossland H, Phillips BE, Cederholm T, Jensen T, van Loon L, Lannfelt L, Kraus WE, Atherton PJ, Howard R, Gustafsson T, Hodges A, Timmons JA (2015) A novel multi-tissue RNA diagnostic of healthy ageing relates to cognitive health status. *Genome Biology* 16:185.

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Gould RL, Coulson MC, Brown RG, Goldstein LH, Al-Chalabi A, Howard R (2015) Psychotherapy and pharmacotherapy interventions to reduce distress or improve well-being in people with amyotrophic lateral sclerosis: A systematic review. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration* 16 293-302.

Howard R, Rabins P, Castle D (1999) Late Onset Schizophrenia. *Wrightson*.

Current research funding

NHS Health and Technology Assessment Programme 1/10/2010-31/3/2017 (Chief Investigator) A practical randomised controlled double-blind trial of antipsychotic treatment of very late-onset schizophrenia-like psychosis: The ATLAS Trial. £1,388,087.

NHS Health and Technology Assessment Programme 1/11/2012-31/10/2017 (Chief Investigator) Assistive

technology and telecare in the maintenance of independent living in dementia: the ATTILA Trial. £1,885,342.

European Union FP7 Programme 1/3/2012-28/2/2017 (Principal Investigator) Nilvadipine in Alzheimer's disease: The NILVAD Trial. 6M Euros (£800,000 to KCL).

NIHR Programme Grant 1/6/2012-31/5/2017 (Lead Applicant) Visual hallucinations programme. £1.9M.

NIHR/MRC Efficacy Mechanisms Evaluation Programme 1/1/2013-31/12/2017 (Chief Investigator) Minocycline in Alzheimer's Disease Efficacy (MADE) Trial. £1.85M.