

Benjamin Meir Jacobs

National Institute of Health Research (NIHR) Academic Clinical Fellow in Neurology
Specialist Registrar in Neurology (ST3). NTN LDN/ACA-006/7515782/C. GMC 7515782.
Preventive Neurology Unit, Wolfson Institute of Preventive Medicine, Barts and Queen Mary University of London
Barts and the London NHS Trust / Barking, Havering and Redbridge NHS Trust

Employment

- Academic neurology, Wolfson Institute of Preventive Neurology (August 2019 – present)
- Endocrinology / acute medicine, King George Hospital, Ilford (Feb 2019 – August 2019)
- Care of the elderly / acute medicine, Queens Hospital, Romford (August 2018 – Feb 2019)
- Acute medicine, Royal London Hospital (March 2018 – August 2018)
- General psychiatry, Mile End Hospital (December 2017 – March 2018)
- Academic neurology, Centre for Neuroscience & Trauma, Bart's & QMUL (August 2017 – December 2017)
- Acute assessment unit / Rheumatology, Whipps Cross University Hospital (April 2017 – August 2017)
- General Surgery, Whipps Cross University Hospital (December 2016 – April 2017)
- Respiratory medicine, Whipps Cross University Hospital (August 2016 – December 2016)

Education

- Woodridge Primary School, Totteridge (September 1996 – June 2003)
- The Haberdashers' Aske's Boys' School, Elstree (September 2003 – June 2010)
- Magdalen College, University of Oxford (October 2010 – July 2016)

Qualifications

- Member of the Royal College of Physicians (UK): Part 1: 792/999 – 1st attempt; Part 2: 804/999 – 1st attempt; PACES: 160/172 – 1st attempt
- BM BCh (Oxon): merits in clinical neurology, paediatrics, physiology & pharmacology, organisation of the body, and integrative physiology.
- BA (Hons) Medical Sciences (1st class); 2nd highest degree score across university.
- A Level: 4 A*s in Chemistry, Biology, German, and Philosophy.
- GCSE: 11 A*s in English (Lit + Lang), History, French, German, Physics, Chemistry, Biology, Maths, IT, and Religious Studies.

Research competencies

- Cellular/molecular: Flow cytometry, Cell culture, Immunohistochemistry, Fluorescence microscopy, Reverse-transcriptase PCR, Confocal microscopy
- Software/analysis: R programming, Unix/bash programming, Command line tools for genomics (PLINK, GCTA, LDSC, IMPUTE etc.), Mendelian randomisation

Peer-reviewed publications: ORCID 0000-0002-6023-6010.

1. Jacobs, Benjamin Meir. Stemming the hype: what can we learn from iPSC models of Parkinson's disease and how can we learn it? *Journal of Parkinson's disease* (2014)
2. Jacobs, Benjamin Meir. A dangerous method? The use of induced pluripotent stem cells as a model for schizophrenia. *Schizophrenia research* (2015)
3. Jacobs, Benjamin Meir. Is there a moral obligation to select healthy children? *Journal of medical ethics* (2015)
4. Yates, Richard L; Esiri, Margaret M; Palace, Jacqueline; Jacobs, Benjamin *et al*; Fibrin (ogen) and neurodegeneration in the progressive multiple sclerosis cortex. *Annals of neurology* (2017)
5. Wei, Wei-Chun; Jacobs, Benjamin; *et al*; Reciprocal regulation of two G protein-coupled receptors sensing extracellular concentrations of Ca²⁺ and H⁺. *PNAS* (2015)
6. Jacobs, Ben *et al*; Pneumatosis Intestinalis and Intestinal Perforation in a Patient Receiving Tocilizumab. *Archives of rheumatology* (2018)
7. Jacobs, B *et al*; Rethinking surgical readmissions. *The Bulletin of the Royal College of Surgeons of England* (2018)
8. Ceronie, Bryan; Jacobs, Benjamin M *et al*; Cladribine treatment of multiple sclerosis is associated with depletion of memory B cells. *Journal of neurology* (2018)
9. Jacobs, Benjamin Meir; *et al*; No evident disease activity—More than a risky ambition? *JAMA neurology* (2018)
10. Jacobs, Benjamin Meir *et al*; Cladribine: mechanisms and mysteries in multiple sclerosis. *JNNP* (2018)
11. Bell, JS; Spencer, JI; Yates, RL; Yee, SA; Jacobs, BM; DeLuca, GC; Invited Review: From nose to gut—the role of the microbiome in neurological disease. *Neuropathology and applied neurobiology* (2019)
12. Baker, David; Jacobs, Benjamin M *et al*; Plasma cell and B cell-targeted treatments for use in advanced multiple sclerosis. *Multiple sclerosis and related disorders* (2019)
13. Jacobs, Benjamin M *et al*; BMI and low vitamin D are causal factors for multiple sclerosis: A Mendelian Randomization study. *Neurology-Neuroimmunology Neuroinflammation* (2020)
14. Jacobs, Benjamin Meir; Giovannoni, Gavin; Cuzick, Jack; Dobson, Ruth; Systematic review and meta-analysis of the association between Epstein-Barr virus, Multiple Sclerosis, and other risk factors. *Multiple Sclerosis Journal* (2020)
15. Kuri, Ashvin; Jacobs, Benjamin Meir *et al*; Epidemiology of Epstein-Barr Virus infection and Infectious Mononucleosis in the United Kingdom. *BMC Public Health* (in press, 2020)
16. Jacobs, Benjamin Meir; Taylor, Thomas; Awad, Amine; Baker, David; Giovannoni, Gavin; Noyce, Alastair; Dobson, Ruth; Summary-data-based mendelian randomisation reveals druggable targets for multiple sclerosis. *Brain Communications* (in press, 2020)
17. Jacobs, Benjamin Meir *et al*; Parkinsons disease determinants, prediction and gene-environment interactions in the UK Biobank. *JNNP* (in press, 2020)
18. Jacobs, Benjamin M; Noyce, Alastair J; Hardy, Christopher JD; Warren, Jason D; Marshall, Charles R; Exploring the causal effect of hearing loss on Alzheimers disease: a Mendelian randomisation study. *medRxiv* (2020)
19. Jacobs, Benjamin Meir; *et al*; Gene-environment interactions in Multiple Sclerosis: a UK Biobank study. *bioRxiv* (2020)

Presentations & Posters

Posters

- 'Headache at Whipps Cross University Hospital: a retrospective audit of 332 patients.' *Association of British Neurologists annual conference*. (2017).
- 'Cladribine controls Multiple Sclerosis by memory B cell depletion'. *ECTRIMS* (2017).
- 'Long-term depletion of memory B lymphocytes by cladribine is not due to intrinsic cell type-specific toxicity.' *ABN annual conference* (2018) & *European Congress for Treatment and Research in MS (ECTRIMS 2018)*
- 'Improving high-dose antipsychotic prescribing in an adult inpatient psychiatric hospital'. *Royal College of Psychiatrists annual congress* (2018).
- 'Improving sleep quality on an adult inpatient psychiatric ward'. *World Congress of Psychiatry* (2018).
- 'Improving ward round documentation using structured ward round proformas on an acute frailty unit'. *Royal College of Physicians 'Medicine 2019' conference* (2019).
- 'Epstein-Barr Virus infection and Multiple Sclerosis: a systematic review and meta-analysis'. *Association of British Neurologists annual conference* (2019).
- 'Phenotype of new daily persistent headache'. *Association of British Neurologists annual conference* (2019).
- 'Variation in cladribine-induced lymphocyte depletion'. *European Charcot Foundation* (2019).

Oral presentations

- 'Epstein-Barr Virus infection and Multiple Sclerosis: a systematic review and meta-analysis'. *MS Frontiers* (2019).
- 'Childhood BMI and low serum vitamin D are independent causal risk factors for MS'. *European Charcot Foundation, Young Investigator Award* (2019).

Other writing experience

- Editorial board member, *Multiple Sclerosis and Related Disorders*
- Co-author of a horizon scan for the MS Society on therapeutic strategies for targeting B cell biology in the treatment of Multiple Sclerosis.

- Published in the student BMJ on best interest decisions for patients in minimally conscious states.
- Published in the Oxford Medical School Gazette on 'ethics teaching in medical school' and 'informed consent and risky interventions'.
- I write topical critical appraisals of research papers for the Barts Neuroimmunology group's MS blog.
- Writer of the 'Tingewick' Medical School pantomime.

Quality improvement/Audit

- Ward round documentation on an acute elderly unit – I have led on an ongoing quality improvement project to standardise ward round entries using a structured proforma on an acute frailty unit. This work has been submitted to the British Geriatrics Society annual conference.
- Sleep on an inpatient psychiatric ward – I helped collect pilot data, analyse the data, and design a series of structured interventions to improve sleep on an acute inpatient psychiatric ward. This work was presented at the World Congress of Psychiatry.
- Antipsychotic stewardship – I have developed a cumulative dose calculator to help identify patients who require 'high-dose monitoring' in line with Royal College of Psychiatry Guidelines. I have implemented this, and other interventions as part of a multidisciplinary QI project to improve antipsychotic stewardship in Mile End Hospital. This work was presented at the RCPsych annual congress.
- NIV care bundle – I have developed and am in the process of implementing a care bundle to standardise care of patients requiring non-invasive ventilation.
- Surgical re-admissions – I collected, analysed, presented and wrote up data from >3500 discharges and readmissions from our general surgical unit in order to characterise modifiable risk factors for readmission. This was published in the Royal College of Surgeons' bulletin.
- Headache – I collected, analysed, presented, and wrote up data from 6 years worth of patients presenting to the Whipps Cross Headache Clinic in order to determine the effectiveness of the 'headache pack' that had been sent to local GPs in 2012. This was presented as the ABN.
- Blood gas analyser – I collected data, produced a report and a business case, and successfully acquired an arterial blood gas analyser for the respiratory wards at Whipps Cross University Hospital.
- Medical handover: I collected pilot data, and designed an intervention based on this data to improve the safety and efficiency of handover from the AAU to the wards at Whipps Cross University Hospital.

Prizes

- National/International
 - o European Charcot Foundation Young Investigator Award: Epidemiology section
 - o American Academy of Neurology Saul R. Korey Medical Student Essay Prize in Experimental Neurology
 - o National winner, Arthritis Research UK Essay Prize
 - o Shortlist, Royal Society of Medicine Psychiatry students and trainees Essay Prize
 - o 2nd place in Edinburgh University Neurological Society Essay Prize
 - o Highly Commended Entry, Society for Endocrinology National Essay Prize
 - o Highly Commended Entry, Royal College of Psychiatrists Addictions Faculty Essay Prize
- University
 - o John Potter Essay Prize in Neurology
 - o Dennis Gath Prize in Psychiatry
 - o LJ Witts Essay Prize in Haematology or Gastroenterology
 - o Gibbs prize in the Finals Honours School of Medical Sciences for coming 2nd in finals
 - o Exhibition at Magdalen College, Oxford
 - o Shortlisted for the Sir Roger Bannister prize in Neurology
 - o Shortlisted for the Peter Tizard prize in Paediatrics
- Other
 - o British Neuropathology Society Postgraduate small grant award
 - o Isaach Schapera research award

Teaching/supervision

- Supervision: I have helped supervise Academic F2s and a medical student in the lab.
- Lectures:
 - o Previous: I gave fortnightly neurology lectures to Barts 4th year students, I gave a 'Neurology for finals' revision lecture to Barts final years, fortnightly surgical/respiratory teaching for Barts 3rd years during my jobs in those specialties, and a revision lecture to Oxford 5th year clinical students on paediatric infectious diseases.
- Problem-based learning: I have supervised 2nd year medical students at QMUL on the Cardiorespiratory and Brain and Behaviour modules.
- Clinical skills/Ward-based:
 - o Previous: I gave weekly bedside teaching to Barts 4th years on the neurological exam, and weekly general medical clinical skills teaching to Barts 3rd year students. I gave fortnightly bedside teaching during my surgical and respiratory jobs, I recently led a session on the neurological exam for 3rd year Barts clinical students, and I demonstrated the neurological exam to 2nd year pre-clinical students at Oxford as part of their neuroscience course.
- Online: I designed a website with a colleague to help medical students learn neurology (www.teachmeneurology.com).

Other experience

- I ran the medical society at my college - the Sherrington Society. I roped in the speakers and ran the events. My best catches were Paul Nurse, Alan Fenwick, Mary Warnock, Ray Tallis and Simon Baron-Cohen.
- I organised the music at my college's triennial commemoration ball. This involved securing and managing the acts and working closely with the rest of the committee.
- I have peer-reviewed articles for *Multiple Sclerosis Journal*, *Multiple Sclerosis and Related Disorders*, and *International Journal of Epidemiology*.

Activities and interests

- I like cycling, running, and playing/watching football.
- I enjoy reading novels.
- I am interested in medical ethics.
- I am 1 year through a 2 year part-time HEE-sponsored MSc in genomic medicine.

References:

- Dr Ruth Dobson: ruth.dobson@qmul.ac.uk
- Professor Gavin Giovannoni: gavin@giovannoni.net
- Dr. Maïke Glitsch: maïke.glitsch@dpag.ox.ac.uk
- Dr. Gabriele DeLuca: gabriele.deluca@ndcn.ox.ac.uk
- Professor Chris Garland: chris.garland@pharm.ox.ac.uk