

Curriculum vitae

PETER GARRARD

Reader in Neurology
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1. Academic Qualifications

| | | |
|------|-------------------------|---------------------------------------|
| 2004 | FRCP | Royal College of Physicians of London |
| 1999 | PhD (Cognitive Science) | St Catharine's College, Cambridge |
| 1994 | MRCP | Royal College of Physicians of London |
| 1990 | MB, ChB | University of Bristol |
| 1983 | BA (Literae Humaniores) | Worcester College, Oxford |

2. Previous Appointments

| | |
|-------------------|---|
| 09/2007 - 03/2010 | Reader in Neurology University of Southampton Honorary Consultant Neurologist Southampton University Hospitals NHS Trust |
| 12/2005 - 08/2007 | Senior Lecturer in Neurology Royal Free and University College Medical School Honorary Consultant Neurologist Royal Free Hampstead and Barnet-Chase Farm NHS Trusts |
| 12/2001 - 11/2005 | Senior Lecturer in Cognitive Neuroscience Institute of Neurology, University College London Honorary Consultant Neurologist National Hospital for Neurology and Neurosurgery, London |
| 06/1999 - 11/2001 | Registrar in Neurology Anglia (now East of England) Deanery |
| 06/1996 - 05/1999 | Clinical Training Research Fellow (Medical Research Council) University of Cambridge Neurology Unit |
| 01/1995 - 05/1996 | Registrar in Neurology Bristol training rotation |
| 02/1994 - 12/1994 | Medical Registrar Watford General Hospital |
| 08/1992 - 01/1994 | SHO rotation St George's Hospital |

3. Other Appointments and Affiliations

- 2015 - Trustee - Daedalus Trust <www.daedalustrust.com>
- 2014 - Trustee - St George's Neuroscience Research Foundation <www.neurosciencesresearchfoundation.org.uk>
- 2014 - Chair – UCL Clinical Trials Unit (Trials Adoption Group)
- 2014 - Lead for Dementia Research – South London Clinical Research Network, Division 5
- 2011 - Member - Research Advisory Group of the Daedalus Trust
- 2005 - Fellow – Royal Society of Medicine
- 2001 - Ordinary Member – Association of British Neurologists

4. Special Awards, Honours and Distinctions

- 2015 - Associate Editor – Journal of Alzheimer's Disease
- 2014 - Associate Editor – Cortex
- Aug. 2014 Prioritisation Panel member – EPSRC's 'Sensing and Imaging for Diagnosis of Dementias' call.
- 2011 - Review panel member – NIHR Efficacy and Mechanism Evaluation and Health Technology Assessment funding streams
- 2008 - Grant reviewer - MRC, Alzheimer's Society, ARUK, NIHR
- 2001 - Peer reviewer for: Annals of Neurology, Brain, Journal of the American Medical Association, Journal of Neurology Neurosurgery and Psychiatry, Cortex, Journal of Alzheimer's Disease, Cognitive and Behavioural Neurology, Neuropsychologia, Journal of Neurology
- 2001 – 2005 MRC Clinician Scientist Fellow
- 1996 – 1999 MRC Clinical Training Fellow

5. Teaching

Internal

| Course | Year | Module | Activity Title | Activity | Date | No | Units |
|------------|-------|-----------------------|------------------------------------|------------------------------------|------------------|----|--------------|
| BSc | 1 | Clinical Neuroscience | Clinical dementia | Lecture | 24/1/15 | 1 | Hour |
| BMS, MBBS5 | 1 | Neuro | Injury to the cerebral hemispheres | Lecture | 25/11/14 | 1 | Hour |
| BMS, MBBS5 | 1 | Neuro | Injury to the cerebral hemispheres | Lecture | 25/11/15 | 1 | Hour |
| MBBS | Final | - | OSCE | Examining | 2012 | 3 | OSCEs |
| MBBS | Final | - | OSCE | Examining | 2013 | 2 | OSCEs |
| MBBS | Final | - | OSCE | Examining | 2014 | 3 | OSCEs |
| MBBS | Final | - | OSCE | Examining | 2015 | 3 | OSCEs |
| MBBS | P | Neuro plus | Dementia | Lecture | 2014-15 | 4 | Lectures |
| MBBS | P | Neuro plus | Dementia | Lecture | 2015-16 | 4 | Lectures |
| BSc | 3 | Neuroscience | Final year project | Project supervision | 1/10/14 - 1/4/15 | 1 | Student |
| BSc | 3 | Neuroscience | Final year project | Project supervision | 1/10/15 - 1/4/16 | 1 | Student |
| MBBS | P | Neuro plus | Outpatient neurology | Small group teaching | 2014-15 | 8 | Students |
| MBBS | P | Neuro plus | Outpatient neurology | Small group teaching | 2015-16 | 8 | Students |
| MBBS | P | Neuro plus | Student sign off | Evaluation and grading | 2014-15 | 2 | Sign-offs |
| MBBS | P | Neuro plus | Student sign off | Evaluation and grading | 2015-16 | 2 | Sign-offs |
| MBBS | F | Elective studentship | Computational linguistics | Project supervision | 9/14-12/14 | 1 | Student |
| BSc | 3 | Clinical neuroscience | Examining | Dissertation grading and viva exam | 2014-15 | 3 | Students |
| MRes | 3 | Dissertation | Examining | Dissertation marking | 2015-16 | 1 | Dissertation |
| PhD | 3/4 | - | Viva voce examination | Independent chair | 2014-2015 | 2 | Vivas |

2013 – 2015: Member of the Research Degrees Committee and MRes Coordinator

External

2010 - Visiting lecturer on BA (Human Sciences) University of Oxford

2001 - 2012 Visiting lecturer on MSc Cognitive Neuropsychology course (Birkbeck College)

6. Research

I am internationally recognised as an expert in the fields of young onset dementia, its associated language disorders and computational approaches to detection, quantification and classification. Although my research focuses on the effects of neurodegenerative

diseases on spoken and written language and its translational potential as a disease biomarker, the methods I have developed have powerful cross-disciplinary applications. I have pioneered the computational analysis of archived language, from 18th century letters through to transcripts of contemporary political debate. This unique approach, for which I coined the term 'Cognitive Archaeology', has been applied to questions of medical, historical, literary and political importance, underlining the opportunities for creative cross-disciplinary collaboration together with broad and effective public engagement.

My publication output was included in SGUL's 2014 REF return

My current citation metrics are:

Total citations: 3289
h-index: 23
i10 index: 34

Publications

BOOKS

P. Garrard and G. Robinson (Editors).

The Intoxication of Power: interdisciplinary insights. Palgrave Macmillan 2015

S. Cappa, J. Abutalebi, J-F. Demonet, P. Fletcher and P. Garrard (Editors).

Cognitive Neurology: a clinical textbook. Oxford University Press 2008

J. Golomb, A. Kluger, P. Garrard and S. Ferris.

Clinician's Manual on Mild Cognitive Impairment. Science Press Ltd. 2001

BOOK CHAPTERS

1. P. Garrard. "Neurology for Psychiatrists"
In: Psychiatry - an evidence-based textbook for the MRCPsych. (Revised Edition) L. Puri and I. Treasden (Editors). Hodder Arnold (In press)
2. P. Garrard, J.R. Hodges and K. Patterson. "Iris Murdoch revisited"
In: Single Cases in the Memory Literature. S. Macpherson and S. Della Sala (Editors). Taylor and Francis (In press)
3. P. Garrard. "On the Linguistics of Power (and the Power of Linguistics)" In: The Intoxication of Power. P. Garrard and G. Robinson (Editors). Palgrave Macmillan. 2015.
4. S. Nageshwaran and P. Garrard "Dementia" In: Drugs in Neurology. S. Nageshwaran, H. Wilson, A. Dickenson, and D. Ledingham (Editors). Oxford University Press. 2014
5. P. Garrard. "Neurology for Psychiatrists" In: Psychiatry - an Evidence-based textbook for the MRCPsych. L. Puri and I. Treasden (Editors). Hodder Arnold. 2012
6. P. Garrard. "Textual Pathology" In: Text and Genre in Reconstruction: effects of digitisation on ideas, behaviours, products and institutions. W. McCarty (Editor). Open Book. 2009

7. P. Garrard "Differential Diagnosis in Dementia". In: Cognitive Neurology: a clinical textbook. S. Cappa, J. Abutalebi, J-F. Demonet, P. Fletcher and P. Garrard (Editors). Oxford University Press. 2008
8. P. Garrard, J. Hodges and K. Patterson. "Semantic Processing in Alzheimer's Disease" In: Cognitive Neuropsychology of Alzheimer's Disease. R. Morris and J. Becker (Editors). Oxford University Press. 2004
9. P. Garrard, M.A. Lambon Ralph, J.R. Hodges "Semantic dementia: a category-specific paradox." In: Category Specificity in Brain and Mind. E. Forde and G.W. Humphreys (Editors). Psychology Press. 2002
10. J.R. Hodges, P. Garrard and K. Patterson "Semantic Dementia" In: Pick's Disease and Pick Complex. A. Kertesz and D. Munoz (Editors). Wiley Liss Inc. 1998

REVIEWS AND EDITORIALS

11. **Garrard, P., and B. Elvevag. 2014. "Language, computers and cognitive neuroscience." *Cortex* no. 55:1-4.**
12. Garrard, P. "Interactive Atlas Of The Human Brain" (CD-ROM). Robert E Kingsley, Robert D Kingsley. Humana Press. European Journal of Paediatric Neurology 2010; 14:289.
13. Jiwa, N. S., P. Garrard, and A. H. Hainsworth. 2010. "Experimental models of vascular dementia and vascular cognitive impairment: a systematic review." *Journal of Neurochemistry* no. 115 (4):814-828.
14. Garrard, P. 2010. "Literature, history and biology." *Psychologist* no. 23 (3):262-263.
15. Garrard, P. "The essential handbook of memory disorders for clinicians". Edited by Baddeley, A, Kopelman, M and Wilson, B. J. Neurol. Neurosurg. Psychiatry, Apr 2005; 76: 598.
16. Garrard, P. "Memory from A to Z". Yadin Dudai: Oxford, OUP 2002. Review in Journal of Neurology, 2003.
17. Garrard, P., and J. R. Hodges. 2000. "Semantic dementia: clinical, radiological and pathological perspectives." *J Neurol* no. 247 (6):409-22.
18. Garrard, P., and J. R. Hodges. 1999. "Semantic dementia: implications for the neural basis of language and meaning." *Aphasiology* no. 13 (8):609-623.
19. Garrard, P., R. Perry, and J. R. Hodges. 1997. "Disorders of semantic memory." *J Neurol Neurosurg Psychiatry* no. 62 (5):431-5.
20. Ralph, M. A. L., and P. Garrard. 2001. "Category-specific deficits: Insights from semantic dementia and Alzheimer's disease." *Behavioral and Brain Sciences* no. 24 (3):485-+
21. Garrard, P., and J. R. Hodges. 2000. "Semantic dementia: clinical, radiological and pathological perspectives." *Journal of Neurology* no. 247 (6):409-422.
22. Garrard, P. 2000. "Category-specific names test." *European Journal of Cognitive Psychology* no. 12 (2):285-288.

SCIENTIFIC PAPERS

23. Garrard, P., V. Nemes, D. Nolic, and A. Barney. (in press). Motif discovery in speech: application to monitoring Alzheimer's disease. Current Alzheimer Research.

24. Rentoumi, V., J. Conlin, T.J. Peters, and P. Garrard. (in press). "The acute mania of King George III: A computational linguistic analysis. *PLoS One*.
25. Laske, C., H. R. Sohrabi, S. M. Frost, K. Lopez-de-Ipina, P. Garrard, M. Buscema, J. Dauwels, S. R. Soekadar, S. Mueller, C. Linnemann, S. A. Bridenbaugh, Y. Kanagasigam, R. N. Martins, and S. E. O'Bryant. 2015. "Innovative diagnostic tools for early detection of Alzheimer's disease." *Alzheimers & Dementia* no. 11 (5):561-578.
26. Benjamin, M. J., A. Cifelli, P. Garrard, D. Caine, and F. W. Jones. 2015. "The role of working memory and verbal fluency in autobiographical memory in early Alzheimer's disease and matched controls." *Neuropsychologia* no. 78:115-121.
27. Catricala, E., P. A. Della Rosa, V. Plebani, D. Perani, P. Garrard, and S. F. Cappa. 2015. "Semantic feature degradation and naming performance. Evidence from neurodegenerative disorders." *Brain and Language* no. 147:58-65.
28. Garrard, P., V. Rentoumi, B. Gesierich, B. Miller, and M. L. Gorno-Tempini. 2014. "Machine learning approaches to diagnosis and laterality effects in semantic dementia discourse." *Cortex* no. 55:122-129.
29. Garrard, P., V. Rentoumi, C. Lambert, and D. Owen. 2014. "Linguistic biomarkers of Hubris syndrome." *Cortex* no. 55:167-181.
30. Rentoumi, V., L. Raoufian, S. Ahmed, C. A. de Jager, and P. Garrard. 2014. "Features and Machine Learning Classification of Connected Speech Samples from Patients with Autopsy Proven Alzheimer's Disease with and without Additional Vascular Pathology." *Journal of Alzheimers Disease* no. 42:S3-S17.
31. Noonan, K. A., E. Jefferies, S. Eshan, P. Garrard, and M. A. L. Ralph. 2013. "Demonstrating the qualitative differences between semantic aphasia and semantic dementia: A novel exploration of nonverbal semantic processing." *Behavioural Neurology* no. 26 (1-2):7-20.
32. Ahmed, S., A. M. F. Haigh, C. A. de Jager, and P. Garrard. 2013. "Connected speech as a marker of disease progression in autopsy-proven Alzheimer's disease." *Brain* no. 136:3727-3737.
33. Ahmed, S., C. A. de Jager, A. M. Haigh, and P. Garrard. 2013. "Semantic processing in connected speech at a uniformly early stage of autopsy-confirmed Alzheimer's disease." *Neuropsychology* no. 27 (1):79-85.
34. Ahmed, S., C. A. de Jager, A. M. Haigh, and P. Garrard. 2012. "Logopenic aphasia in Alzheimer's disease: clinical variant or clinical feature?" *J Neurol Neurosurg Psychiatry* no. 83 (11):1056-62.
35. Garrard, P., and T. J. Peters. 2012. "Multiple sclerosis or neuromyelitis optica? Re-evaluating an 18th-century illness using 21st-century software." *JRSM Short Rep* no. 3 (1):1.
36. Garrard, P., A. M. Haigh, and C. de Jager. 2011. "Techniques for transcribers: assessing and improving consistency in transcripts of spoken language." *Literary and Linguistic Computing* no. 26 (4):389-405.
37. Garrard, P., and R. Forsyth. 2010. "Abnormal discourse in semantic dementia: A data-driven approach." *Neurocase* no. 16 (6):520-528.
38. Garrard, P. 2009. "Cognitive archaeology: Uses, methods, and results." *Journal of Neurolinguistics* no. 22 (3):250-265.
39. Robinson, S., J. Druks, J. Hodges, and P. Garrard. 2009. "The treatment of object naming, definition, and object use in semantic dementia: The effectiveness of errorless learning." *Aphasiology* no. 23 (6):749-775.

40. Garrard, P., N. H. Martin, P. Giunti, and L. Cipolotti. 2008. "Cognitive and social cognitive functioning in spinocerebellar ataxia - A preliminary characterization." *Journal of Neurology* no. 255 (3):398-405.
41. Van Velzen, M., and P. Garrard. 2008. "From hindsight to insight - retrospective analysis of language written by a renowned Alzheimer's patient." *Interdisciplinary Science Reviews* no. 33 (4):278-286.
42. Zahn, R., P. Garrard, J. Talazko, M. Gondan, P. Bubrowski, F. Juengling, H. Slawik, P. Dykieriek, B. Koester, and M. Hull. 2006. "Patterns of regional brain hypometabolism associated with knowledge of semantic features and categories in Alzheimer's disease." *J Cogn Neurosci* no. 18 (12):2138-51.
43. **Garrard, P., and E. Carroll. 2006. "Lost in semantic space: a multi-modal, non-verbal assessment of feature knowledge in semantic dementia." *Brain* no. 129 (Pt 5):1152-63.**
44. Garrard, P., J. M. Schott, D. G. MacManus, J. R. Hodges, N. C. Fox, and A. D. Waldman. 2006. "Posterior cingulate neurometabolite profiles and clinical phenotype in frontotemporal dementia." *Cogn Behav Neurol* no. 19 (4):185-9
45. **Garrard, P., L. M. Maloney, J. R. Hodges, and K. Patterson. 2005. "The effects of very early Alzheimer's disease on the characteristics of writing by a renowned author." *Brain* no. 128 (Pt 2):250-60.**
46. **Garrard, P., and E. Carroll. 2005. "Presymptomatic semantic impairment in a case of fronto-temporal lobar degeneration associated with the +16 mutation in MAPT." *Neurocase* no. 11 (5):371-83.**
47. **Garrard, P., M. A. Lambon Ralph, K. Patterson, K. H. Pratt, and J. R. Hodges. 2005. "Semantic feature knowledge and picture naming in dementia of Alzheimer's type: a new approach." *Brain Lang* no. 93 (1):79-94.**
48. Carroll, E., and P. Garrard. 2005. "Knowledge of living, nonliving and "sensory quality" categories in semantic dementia." *Neurocase* no. 11 (5):338-50.
49. **Garrard, P., E. Carroll, G. Vigliocco, and D. Vinson. 2004. "Lexical processing in progressive aphasia: Separating the semantic and syntactic properties of single words." *Dementia and Geriatric Cognitive Disorders* no. 17 (4):371-372.**
50. **Rogers, T. T., M. A. Lambon Ralph, P. Garrard, S. Bozeat, J. L. McClelland, J. R. Hodges, and K. Patterson. 2004. "Structure and deterioration of semantic memory: a neuropsychological and computational investigation." *Psychol Rev* no. 111 (1):205-35.**
51. Garrard, P., C. Farnham, A. J. Thompson, and E. D. Playford. 2004. "Rehabilitation of the cancer patient: experience in a neurological unit." *Neurorehabil Neural Repair* no. 18 (2):76-9.
52. **Ralph, M. A. L., K. Patterson, P. Garrard, and J. R. Hodges. 2003. "Semantic dementia with category specificity: A comparative case-series study." *Cognitive Neuropsychology* no. 20 (3-6):307-326.**
53. **Garrard, P., D. Bradshaw, H. R. Jager, A. J. Thompson, N. Losseff, and D. Playford. 2002. "Cognitive dysfunction after isolated brain stem insult. An underdiagnosed cause of long term morbidity." *Journal of Neurology Neurosurgery and Psychiatry* no. 73 (2):191-194.**
54. Garrard, P., M. A. Lambon Ralph, P. C. Watson, J. Powis, K. Patterson, and J. R. Hodges. 2001. "Longitudinal profiles of semantic impairment for living and nonliving concepts in dementia of Alzheimer's type." *J Cogn Neurosci* no. 13 (7):892-909.

55. Lambon Ralph, M. A., J. Powell, D. Howard, A. B. Whitworth, P. Garrard, and J. R. Hodges. 2001. "Semantic memory is impaired in both dementia with Lewy bodies and dementia of Alzheimer's type: a comparative neuropsychological study and literature review." *J Neurol Neurosurg Psychiatry* no. 70 (2):149-56.
56. Garrard, P., M. A. Ralph, J. R. Hodges, and K. Patterson. 2001. "Prototypicality, distinctiveness, and intercorrelation: Analyses of the semantic attributes of living and nonliving concepts." *Cogn Neuropsychol* no. 18 (2):125-74.
57. Bozeat, S., M. A. Lambon Ralph, K. Patterson, P. Garrard, and J. R. Hodges. 2000. "Non-verbal semantic impairment in semantic dementia." *Neuropsychologia* no. 38 (9):1207-15.
58. Hodges, J. R., K. Patterson, R. Ward, P. Garrard, T. Bak, R. Perry, and C. Gregory. 1999. "The differentiation of semantic dementia and frontal lobe dementia (temporal and frontal variants of frontotemporal dementia) from early Alzheimer's disease: a comparative neuropsychological study." *Neuropsychology* no. 13 (1):31-40.
59. Garrard, P., K. Patterson, P. C. Watson, and J. R. Hodges. 1998. "Category specific semantic loss in dementia of Alzheimer's type - Functional-anatomical correlations from cross-sectional analyses." *Brain* no. 121:633-646.
60. Barry, C., S. Davis, P. Garrard, and I. T. Ferguson. 1997. "Churg-Strauss disease: deterioration in a twin pregnancy. Successful outcome following treatment with corticosteroids and cyclophosphamide." *Br J Obstet Gynaecol* no. 104 (6):746-7.
61. Garrard, P., and D. Barnes. 1996. "Aortic dissection presenting as a neurological emergency." *J R Soc Med* no. 89 (5):271-2.

CASE REPORTS

62. Godbolt, A. K., J. A. Beck, J. Collinge, P. Garrard, J. D. Warren, N. C. Fox, and M. N. Rossor. 2004. "A presenilin 1 R278I mutation presenting with language impairment." *Neurology* no. 63 (9):1702-1704.
63. Garrard, P., J. Blake, V. Stinton, M. G. Hanna, M. M. Reilly, J. L. Holton, D. N. Landon, and W. P. Honan. 2002. "Distal myopathy with tubular aggregates: a new phenotype associated with multiple deletions in mitochondrial DNA?" *J Neurol Neurosurg Psychiatry* no. 73 (2):207-8.
64. Garrard, P., J. R. Hodges, P. J. De Vries, N. Hunt, A. Crawford, J. R. Hodges, and K. Balan. 2000a. "Hashimoto's encephalopathy presenting as "myxodematous madness". *J Neurol Neurosurg Psychiatry* no. 68 (1):102-3.

LETTERS

65. Garrard, P., and R. Jacoby. 2015. "B-vitamin trials meta-analysis: less than meets the eye." *American Journal of Clinical Nutrition* no. 101 (2):414-415. doi: 10.3945/ajcn.114.097808.
66. Garrard, P., J. Stephenson, V. Ganesan, and T. Peters. 2010a. "Attenuated variants of Lesch-Nyhan disease: the case of King James VI/I." *Brain* no. 133. doi: ARTN e153 10.1093/brain/awq156.

ABSTRACTS

67. Nikolic, D., A. Barney, V. Nemes, and P. Garrard. 2014. "Motif discovery in speech: application to monitoring Alzheimer's disease." *Proceedings Iwbbio 2014: International Work-Conference*
68. Barney, A., D. Nikolic, V. Nemes, P. Garrard. 2013. Detecting repeated speech: a possible marker for Alzheimer's disease. In: *Models and analysis of vocal emissions for biomedical applications, 8th International Workshop: December 16-18, 2013 Firenze: Firenze University*. Edited by Claudia Manfredi. Press, 2013.
69. Nemes, V., D. Nikolic, A. Barney, P. Garrard. 2012. A feasibility study of speech recording using a contact microphone in patients with possible or probable Alzheimer's disease to detect and quantify repetitions in a natural setting. *Alzheimer's & Dementia* 8 (4), P490-P491, 2012.
70. Garrard, P., C. Butler, and S. Ahmed. 2012. "An abbreviated examination for the assessment of linguistic impairment in Primary Progressive Aphasia." *Dementia and Geriatric Cognitive Disorders* no. 33:198-198.
71. Ahmed, S., C. de Jager, A. M. Haigh, and P. Garrard. 2012. "Longitudinal Evaluation of Linguistic and Non-linguistic Abilities in a Case of Logopenic Primary Progressive Aphasia." *Dementia and Geriatric Cognitive Disorders* no. 33:233-234.
72. Garrard, P., and S. Ahmed. 2012. "An abbreviated examination for the assessment of linguistic impairment in primary progressive aphasia." *European Journal of Neurology* no. 19:561-561.
73. Peters, T., and P. Garrard. 2011. "Re-evaluation of the diagnosis of acute porphyria in relatives of King George III with special reference to King James VI/I." *British Journal of Dermatology* no. 164 (5):1135-1136.
74. Vigliocco, G., P. Garrard, D. P. Vinson, and E. Carroll. 2005. "Dissociating semantics and English count-mass: Evidence from semantic dementia and progressive non-fluent aphasia." *Brain and Language* no. 95 (1):96-97.
75. Garrard, P., D. G. MacManus, and A. D. Waldman. 2005. "Regional metabolite ratios in two syndromic variants of fronto-temporal dementia using (1)H magnetic resonance spectroscopy." *Journal of Neurology Neurosurgery and Psychiatry* no. 76 (4):616-616.
76. Garrard, P., and A. Majumdar. 2005. "Effects of early Alzheimer's disease on creative writing." *Journal of Cognitive Neuroscience*:126-126.
77. Garrard, P., and A. Majumdar. 2005. "A tangled genius." *Journal of Neurology Neurosurgery and Psychiatry* no. 76 (6):899-899.
78. Carroll, E., and P. Garrard. 2005. "Knowledge of living, nonliving, and "sensory quality" categories in semantic dementia." *Journal of Neurology Neurosurgery and Psychiatry* no. 76 (6):898-898.
79. Carroll, E., and P. Garrard. 2005. "Non-verbal assessment of semantic feature knowledge in semantic dementia." *Journal of Cognitive Neuroscience*:74-74
80. Garrard, P., and A. Majumdar. 2005. "Effects of early Alzheimer's disease on creative writing." *Journal of Cognitive Neuroscience*:126-126.
81. Garrard, P., and A. Majumdar. 2005. "A tangled genius." *Journal of Neurology Neurosurgery and Psychiatry* no. 76 (6):899-899.

FORTHCOMING PUBLICATIONS

1. P. Garrard (Editor): "Leadership, stress and hubris".

This will be a second collection of papers and transcripts from an interdisciplinary (psychology, politics, finance and business) conference, held at the Royal Society of Medicine in November 2014, and organised by the Daedalus Trust. I have been invited by my fellow Trustees to edit the volume, and am currently in discussion with Taylor and Francis regarding publication. The anticipated publication date will be in early 2017.

2. Clarke, N., N. Sofat, L. Assi, P. Garrard. "Autoimmunity, progranulin and TDP-43 proteinopathy".

This study of temporal lobe function in patients with autoimmune arthritides, and its relationship to serum levels of progranulin was motivated by the hypothesis that patients with the TDP-43 positive form of frontotemporal dementia show an elevated rate of autoimmune comorbidity, which may contribute to the pathogenesis of the condition. The paper will be submitted to Annals of Neurology in February 2016.

3. Garrard, P. "The right hemisphere and its semantics".

This is the subject of a talk that I have been invited to give at the 10th International Conference on Frontotemporal Dementias (ICFTD), which will take place in Munich from Aug 31st to September 2nd. In advance of the meeting I plan to submit a paper to Cortex in the form of a more detailed review of this important and difficult topic, which would be published later in the year.

4. Garrard, P. and F. Humfrey. "Predicting cognitive status in Alzheimer's disease from handwriting: a machine learning study of MMSE data".

This paper will be based on a BSc research project dissertation due to be submitted in March 2016, and sufficiently original to merit submission to the Journal of Alzheimer's Disease.

5. Galizia-Caruana, E., J. Isaacs, and P. Garrard. "Reversible dementias: a case series and review"

This paper is being written by one of the senior specialist trainees in neurology, and will highlight the importance of reversible causes of cognitive impairment, illustrated by case histories of patients seen in the St George's cognitive neurology specialist clinic over the past five years. The paper will be submitted to the BMJ in Spring 2016.

6. Garrard, P., R. Chalmers, S. Chalmers and J. Brookes. "Presymptomatic language change in a blogger with behavioural variant FTD: a computational linguistic analysis"

The second and third authors on this paper are the children of the (now deceased) patient. They contacted me to suggest analysing the large number of digital language samples written by a prolific amateur writer and blogger for more than two decades before he began to develop early symptoms of cognitive decline, which later turned out to represent the onset of frontotemporal dementia. The patient died in early 2015. This project represents a unique opportunity to document clinically important changes associated with an unusual cause of dementia and to promote public engagement through partnership with the patient's family members. Target journal: Neurocase.

7. Peters, T.J., A. Barney, V. Rentoumi and P. Garrard. "Applied cognitive archaeology: handwriting analysis in relation to the mental illness and life events of King George III"

This paper from the 'Cognitive Archaeology' group that Prof. Peters and I established in 2009, will present the results of a longitudinal analysis of King George III's handwriting over a period of 30 years using change-point analysis to detect deviations from baseline of a composite measure that correlates with cognitive status. All but one of the statistically significant changes are temporally linked to medical events referred to in the historical record. We speculate as to the cause of the remaining change point. We will submit in Spring 2016 to a high impact journal such as Proceedings of the National Academy of Sciences.

Grant Income

AWARDED

2016-2020: Research Grant - Medical Research Council

A standardised, multilingual Mini Linguistic State Examination (MLSE) for classifying and monitoring Primary Progressive Aphasia

A collaborative project with the Universities of Manchester, Southampton, Cambridge and the Istituto Universitario di Studi Superiori, Pavia.

£900,000 [Role: Principal investigator]

2016-2018: Wellcome Hub Award

Created out of mind

An extensive partnership between leaders in cognitive science, medicine and the arts, led by University College London, to establish a three year interdisciplinary hub in dementia and arts, at the Wellcome Trust.

£1m [Role: Consortium member]

2013-2015: Research Grant - St George's Neuroscience Research Foundation

Subclinical semantic deficits in autoimmune conditions: a pilot study

£15,000. [Role: Principal investigator]

2012-2014: Project Grant - Leverhulme Trust

Building an 18th Century semantic space to analyse the correspondence of King George III.

£100,000 [Role: Principal investigator]

2012-2015: Enterprise Award - SGUL Enterprise Fund

Diagnostic network analysis of brain imaging in dementia.

£14,500. [Role: Principal investigator]

2010-2011: Discipline Hopping Award - Medical Research Council

Perseverometry: a novel performance marker in dementia.

A collaborative project with the Institute of Sound and Vibration Research, University of Southampton

£89,093. [Role: Principal investigator]

2009-2012: Research Grant - Medical Research Council

Cognitive Archaeology: identifying and measuring the presymptomatic phase of dementia.
A collaborative project with the OPTIMA project, University of Oxford.
£518,000. [Role: Principal investigator]

2001-2005: Clinician Scientist Fellowship Award - Medical Research Council

Exploring the neural basis of semantic memory using magnetic resonance spectroscopy
£650,000. [Role: Principal investigator]

SUBMITTED

Project Grant - IKTPLUSS initiative (Research Council of Norway)

The virtual house doctor - a decision support system for people with dementia
A collaborative project with the Universities of Tromso (Norway), Colorado, Louisiana State, and two industry partners.
Decision date: May 2016 [Role: Co-investigator]

Initial Training Network - European Commission (H2020)

Innovative technologies for sustainable healthcare (SusHea)
A collaborative project with and led by the Department of Computer Science at Leeds Beckett University.
Decision date: June 2016 [Role: Beneficiary]

Project grant - Alzheimer's Society

Whole genome sequencing in patients and families with dementia: building an open access UK resource
Decision date: February 2016 [Role: Co-applicant]

Pilot project grant - Alzheimer Research UK

Concentration, time-course and prognostic value of circulating A-Beta oligomers after traumatic brain injury.
Decision date: March 2016 [Role: Principal investigator]

PhD studentship - Rosetrees Trust

Investigating speech characteristics as predictors and biomarkers of dementia
Decision date: February 2016 [Role: Primary supervisor]

PhD studentship - Alzheimer's Society

Autoimmunity, progranulin and TDP43 proteinopathy
Decision date: July 2016 [Role: Primary supervisor]

IN PREPARATION

Research grant - NIHR Health Services and Delivery Research Programme

Multidisciplinary review model to diagnosis and management of young onset dementia

[Role: Principal investigator]

This application will bring together a team of neurologists, psychiatrists, neuropsychologists and neuroimagers from across London with the aim of refining and standardising a pathway for people with young onset dementia. I am working with an industry partner (GE Healthcare) who will contribute to the costs of Amyloid imaging, where indicated, with a view to examining the needs and health economic implications of this new dementia biomarker.

Preliminary application deadline: April 2016.

Research grant - European Commission (H2020)

IAS/S

[Role: Consortium member]

This consortium is composed of computer scientists, data scientists and geneticists, as well as clinicians and policymakers in two chronic disease areas (lung cancer and dementia). The aim is to extract knowledge from largely unstructured electronic clinical records to create an organised anonymised database that can be used to model risk states and factors, disease trends, individual differences, responses to drug treatment and other variables on a large scale. A genome sequencing work package is expected to highlight variations at a genetic level that can be later examined in populations of patients, with the aim of advancing the development of personalised medicine.

Research degree examination

PhD

2016 *The neurosemantic networks of object nouns: analysis and interpretation*

Abdelmalek Essaadi University, Tangier, Morocco

2010 *Exploring semantic cognition in semantic aphasia and Alzheimer's disease*

University of Manchester

2009 *Insights into frontotemporal dementia: an imaging and neuropsychological study*

University of Cambridge

DClinPsych

2012 *Attention and connected speech in a stroke population*

University of Queensland

MPhil

2012 *Multimodal imaging of brain tumours using NMR*

SGUL

2013 *A genome-wide association study in leukoaraiosis*

SGUL

MSc

I have been an external examiner for the UCL neuroscience MSc course since 2013.

Research Supervision

Postdoctoral research staff at SGUL

2010-13 Dr Samrah Ahmed-Ali

Funded through my MRC project grant 'Cognitive Archaeology'. Her work led to the publication of three scientific reports, one review paper and four conference abstracts, including one platform presentation at the Alzheimer's Association International meeting in Vancouver, 2013. On leaving SGUL Dr Ahmed was appointed to a research assistant post at the University of Oxford.

2011-13 Dr Vanda Nemes

Funded through my MRC Discipline Hopping Award 'Perseverometry'. Dr Nemes's work led to the publication of a peer-reviewed scientific paper (in press), and three conference abstracts. After leaving SGUL, Dr Nemes was appointed to a Lectureship at the University of Pecs, Hungary.

2013-15 Dr Vassiliki Rentoumi

Funded through my Leverhulme Trust project grant 'Creating an 18th Century semantic space'. Dr Rentoumi's work led to the publication of four peer-reviewed scientific papers, and two conference abstracts, including a platform presentation at the Vascular Dementia meeting in Athens, 2014.

Doctoral students

PhD

2016-19 Natasha Clarke

Changes in spoken and written language as predictors of late life dementia

SGUL (MRC Doctoral Training Scholarship)

- 2002-05 Erin Carroll
Category and modality specificity in semantic dementia
University College London
- 2003-06 Julia Hocking
An fMRI study of the semantic feature network
University College London
- 2006-10 Angela Darekar
The BOLD MRI response of the brain to alteration in arterial blood pressure
University of Southampton

Pre-doctoral students

MSc Cognitive neuropsychology – Birkbeck.

- 2004 Helen Gould
- 2004 Arnab Majumdar
- 2005 Krist Noonan
- 2005 Julia Robinson
- 2006 Jo Wiltshire

BSc

- 2002 Lisa Maloney UCL
- 2003 Ian Coyle-Gilchrist UCL (First class honours)
- 2003 Kripa Popatlal UCL
- 2011 Ladan Raoufian SGUL (Runner up – Housfield Prize)
- 2014 Yasmin Galbraith SGUL
- 2015 Francesca Humfrey SGUL (current)

7. Professional Practice

I have held GMC specialist accreditation in Neurology since 2001 and appointments as consultant or honorary consultant Neurologist at: the National Hospital for Neurology and Neurosurgery (2001-2007); Homerton University Hospital NHS Trust (2002-2005); the

Royal Free Hospital (2005-2007); Barnet and Chase Farm Hospital NHS Trust (2005-2007); Southampton University Hospitals NHS Trust (2007-2010).

My current clinical appointment as honorary consultant Neurologist at St George's Healthcare NHS Trust began in 2010 and accounts for 50% of my contracted hours. My roles are in general and specialist (cognitive) Neurology in both inpatient and outpatient settings. Specifically, I provide:

1. A weekly General Neurology outpatient clinic (Thursday pm)
2. Weekly Cognitive Neurology specialist outpatient clinics (Thursday am and Friday pm)
3. Duty consultant ('attending') Neurologist for St George's A&E attenders and inpatients, by rota for four weeks per year
4. Out of hours consultant cover for stroke thrombolysis (by rota one week in seven) and for neurology (one week in forty)

I have a complete and up to date appraisal record, and contribute to the appraisal process as a trained appraiser. I completed my first revalidation in 2014.

I contribute to the Trust's educational programme in dementia, and to the visiting speaker programmes in neighbouring Trusts. I organise visiting lecturers to speak in the monthly external speaker slot on the Neurology CPE programme. I regularly deliver evening talks to lay groups of patients and their relatives organised through the Alzheimer's Society; a two monthly in-house patients and families group led by Dementia Pathfinders at St George's; educational meetings for GPs related to the recognition and diagnosis of dementia.

The dementia specialist workforce now consists of two consultant neurologists, a band 8 neuropsychologist, a dementia nurse specialist, and two inpatient dementia nurse advisors. By instituting and chairing a fortnightly programme of Friday morning dementia research strategy meetings, I have helped to develop an ethos of clinical research participation that has led to regular and growing recruitment to NIHR portfolio research studies (including CTIMPs) and industry trials. I am local PI on two observational studies and two industry drug trials that will open in Q4 of the current financial year. By the end of 2016-17 I plan to have grown this component of our work sufficiently to justify recruitment of a junior full-time member of staff dedicated to dementia research and study recruitment.

8. Enterprise and Knowledge Transfer

I am passionate about interdisciplinarity, public understanding and engagement in science, which I believe to offer mutual benefits to research and society. I am a keen supporter and active participant in the University's Community Open Day, and always try to communicate new findings and publications that are of potential public interest to the media. As a result, my work has received extensive media attention, including interviews on BBC Radio 4's 'Today' programme, US National Public Radio, and television, national and international newspaper coverage, and a growing presence in the new media.

The interdisciplinary potential of my work and the breadth of my academic collaborations inspired a highly successful SGUL 'Spotlight on Science' event, dealing with issues of language, political power and hubris. I was invited to participate in the prestigious TEDx

event that was awarded to Wandsworth in 2015. My TED talk 'On the power of linguistics and the linguistics of power' is now online at <http://tinyurl.com/jqohels>.

As a Trustee and member of the research advisory committee of the Daedalus Trust between 2012 and the present, I helped to organise and run two conferences on leadership and hubris at the Royal Society of Medicine and one at the Judge Business School in Cambridge. In addition, I was involved in the organisation and running of a number of smaller events ('research cafés') in London and Oxford.

I strive to maximise public and patient involvement in all my research activities, and value the fresh insights that an interested lay person can bring to the development of ideas in medical science. I worked with the Alzheimer's Society to facilitate caregivers' input into my B-vitamin trial proposal, and have addressed patient and Alzheimer's Society sponsored carer groups on topics related to young onset dementia syndromes.

9. Strategic Enablers

Academic leadership in the Discipline

Since 2013 my unique expertise in neurodegeneration, language and computational analysis, has led to requests to lecture, to collaborate internationally and to join scientific research consortia on multicentre grants. My expanding collaborative network includes clinicians and scientists from Italy, Greece, Spain, Norway, Australia and the United States. Consortia have included applications to Horizon 2020 (including one currently in preparation), and the Alzheimer's Society (currently in submission). My interdisciplinary interests spanning neuroscience and the humanities led to an invitation to contribute to a UCL-led application for the prestigious Wellcome Hub award (also in submission).

I regularly comment in the press on issues related to my areas of research, have been interviewed on radio and television, and helped journalists with articles and features, both in the UK and internationally. I have authored two topical pieces in the Science & Technology section of the online media outlet 'The Conversation': one on the role of B-Vitamins in preventing dementia (7.8K readers) and the other on power and hubris in politics (2.1K readers).

Other specific markers of national and international esteem include:

2016 Invited speaker and symposium committee member – 10th Language Resources and Evaluation Conference (Portorož, Slovenia).

Invited speaker at the 10th International Conference on Frontotemporal Dementias, (Munich, Germany).

Invited speaker at the Sussex Neuroscience Society.

Invited speaker at Johns Hopkins University School of Medicine Grand Rounds programme – date to be confirmed.

2015 Invited to contribute a chapter to the book on Single Case Neuropsychology and memory, edited by Sarah MacPherson and Sergio Della Sala, to be published Summer, 2016. I will be writing about the case of the novelist Dame Iris Murdoch, my study of whose prose just prior to her diagnosis of Alzheimer's disease was published in *Brain* in 2005. Prof. John Hodges and Dr. Karalyn Patterson have agreed to co-author the chapter with me.

Invited to act as International Discussant in a symposium on language and dementia at the American Association for the Advancement of Sciences, February 11-15, 2016 in Washington DC.

Invited to join an international multidisciplinary consortium of experts to review progress in the development of novel biomarkers for Alzheimer's disease, because of my expertise in language disorders in dementia. The review was published in *Alzheimer's and Dementia*.

Invited to contribute to a special issue of *Current Alzheimer Research* devoted to 'Advanced methods of biomedical signal processing for early detection of Alzheimer's disease'. Written with my collaborators at the Institute of Sound and Vibration Research in Southampton.

TEDx Wandsworth event 'Be the Change': One of two SGUL academics selected to showcase our research in the form of a TED talk at this locally sponsored event that featured a selection of talks on a variety of local themed topics.

2014 Symposium organiser ('Language, Computers and Cognitive Neuroscience') and speaker at the World Federation of Neurology biennial meeting, Hong Kong.

Joint Guest Editor (with Prof. Brita Elvevåg, University of Tromsø, Norway) of *Cortex* Special Issue - 'Language, Computers and Cognitive Neuroscience'

2013 Organised and led a public engagement ('Spotlight on Science') event at SGUL entitled 'The Linguistics of Power', in which my collaborative research with David (Lord) Owen on parliamentary language of Prime Ministers, the concept of Hubris Syndrome, the Cognitive Archaeology of King George III, and methods in computational linguistics, were communicated. The meeting attracted a capacity audience and was universally well received.

2012 I led a national consortium of prominent dementia researchers and trialists across the UK in an application to the NIHR to fund a trial of homocysteine lowering using oral B vitamins in patients with mild cognitive impairment ('VITACOG-2'). VITACOG-2 reached the full application stage with excellent reviews and broad support, but was denied funding at the final meeting of the EME allocation committee.

Other invited talks and lectures overseas:

2013 'The language of power': in 'Language as a Window into the Brain and its Pathologies' – Cognitive Science Society, Berlin.

- 2012 'Early onset dementia' - University of Brisbane, Australia.
- 2009 'Connected speech abnormalities in neurodegenerative dementias' - University of California San Francisco.
- 2007 'Cognitive Archaeology – Uses and methods' - Cognitive Science and Text Workshop. Charles Sturt University, Bathurst, Australia.
- 2008 'Cognitive insights from connected speech samples' - Kognitiv V, Marmaris.
- 2002 'Semantic feature degradation in Alzheimer's disease and semantic dementia' - International Conference on Memory (ICOM), Valencia.
- 2001 'Exploring the semantic memory impairment in neurodegenerative disease' - International Conference on Memory, Valencia, Spain
- 2000 'Semantic feature knowledge in patients with Alzheimer's disease and Semantic Dementia' - World Federation of Neurology, Praia do Forte, Brazil
- 1998 'The breakdown of semantic memory in temporal lobe disease' - International School of Advanced Studies, Trieste, Italy
- 1998 'Category specific semantic impairment and Semantic Dementia' - World Federation of Neurology, Prague
- 1997 'The breakdown of semantic memory in diseases of the temporal lobe' - Alzheimer's disease International, 7th European Congress, Helsinki, Finland

Academic leadership in SGUL

I was Deputy Director of the Stroke and Dementia Research Centre from its foundation in 2010, and Director from 2013 until the introduction of the new Institute structure, when I became Deputy Director of the new Neuroscience Institute. From these positions I led a departmental application to the Alzheimer's Society Doctoral Training Centre Award Scheme, and had two project proposals accepted on the MRC funded Intercollegiate Doctoral Training Programme for the 2016 application rounds.

Since my appointment as Honorary Consultant Neurologist at St George's Healthcare Trust, I have played an active role in facilitating cooperative and collaborative activity within and between the Department of Clinical Neuroscience, its Clinical Research Facility, and the University. Specifically: I instituted a fortnightly dementia-specific research strategy meeting to optimise the identification and recruitment of patients into suitable CRN portfolio and commercial research studies; the meeting has grown and enhanced the Trust's involvement in national and multi-national dementia research studies. I have organised a varied series of visiting lecturers and speakers from within SGUL for the monthly guest speaker programme in the Neurology departmental meeting. I have held, and continue to hold, a number of leadership positions and served on several University committees.

Leadership roles and committee memberships:

| | |
|-----------|--|
| Current | Deputy Director of the Neuroscience Research Centre of the Cardiovascular and Cell Sciences Research Institute. Personal reviewer for all Centre PIs and continuous mentoring for all members of my (dementia) research group. Dementia lead for the South London Local Clinical Research Network. |
| 2013-2015 | Director of the Stroke and Dementia Research Centre (Division of Clinical Sciences). |
| 2010-2013 | Deputy Director of the Stroke and Dementia Research Centre. |
| 2010-2014 | Member of: Clinical Sciences Divisional Management Committee; Research Strategy Committee; Research Degrees Committee; |

11-April-2016