

SIMON E. FISHER – CURRICULUM VITAE (MARCH 2020)

PERSONAL STATEMENT: I am a director of the Max Planck Institute for Psycholinguistics and Professor of Language and Genetics at the Donders Institute for Brain, Cognition and Behaviour, in Nijmegen, the Netherlands. I obtained a Natural Sciences degree at Cambridge University, UK, followed by a doctorate in human genetics at Oxford University, UK. For my postdoctoral research at the Wellcome Trust Centre for Human Genetics (WTCHG) in Oxford, I focused on genetic analyses of human neurodevelopmental disorders, and isolated the first gene implicated in speech and language deficits. In 2002, I was awarded a Royal Society University Research Fellowship and became head of my own WTCHG laboratory, investigating how language-related genes influence the brain. In 2010 I was appointed director of the Nijmegen MPI, leading a new department devoted to tracing functional links between genetics and language. My work involves extensive supervision of post-doctoral scientists, research assistants and students, and interdisciplinary collaborations worldwide. I am author of 15 book chapters, and 190 published journal articles, with original research in *Nature*, *New England Journal of Medicine*, *Cell*, *Current Biology*, *PNAS*, *Nature Communications*, *Nature Neuroscience*, and *Nature Genetics*, and reviews in *Annual Review of Genetics/Neuroscience*, *Nature Reviews Genetics/Neuroscience*, *Trends in Genetics/Cognitive Sciences* and *Current Opinion in Neurobiology*. According to Google Scholar, my work has been cited >24,300 times, with an *h*-index of 71. I have given >140 invited talks at departmental colloquia and international conferences, organized expert meetings at the Royal Society (UK) and KNAW (NL), and established a unique Cold Spring Harbor Lab course on Genetics & Neurobiology of Language. Awards include the *Francis Crick Medal and Lecture* (2008) and the *Eric Kandel Young Neuroscientists Prize* (2009). My research adopts a multidisciplinary viewpoint, integrating data from genomics, psychology, neuroscience, developmental biology and evolutionary anthropology.

EDUCATION:

- 1988-1991** Trinity Hall, Cambridge University, UK; BA Hons in Natural Sciences
1995 Trinity Hall, Cambridge University, UK; MA in Natural Sciences
1991-1996 St. Catherine's College, Oxford University, UK; DPhil in Genetics
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POSITIONS AND EMPLOYMENT:

- 1990** Summer research assistant under Dr. J. Williams, Imperial Cancer Research Fund, UK
1991 Undergraduate research under Dr. M. Akam, Genetics Dept., Cambridge University, UK
1991-1996 Doctoral research under Prof. I. Craig, Genetics Lab., Biochem. Dept., Oxford University, UK
1996 Feb-Oct Post-doctoral research under Prof. A.V.S. Hill, WTCHG, Oxford University, UK
1996-2002 Post-doctoral research under Prof. A.P. Monaco, WTCHG, Oxford University, UK
2002-2010 Head of Molecular Neuroscience Group, WTCHG, Oxford University, UK
2010-2012 Honorary Research Fellow; WTCHG, Oxford University, UK
2010-present Director, Max Planck Institute for Psycholinguistics, Nijmegen, the Netherlands
2012-present Professor of Language and Genetics, Donders Institute for Brain, Cognition and Behaviour, Faculty of Science, Radboud University Nijmegen, the Netherlands
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AWARDS AND HONOURS:

- 1989-1990** *Trinity Hall Scholar*, Cambridge University, UK
2002-2010 *University Research Fellow*, Royal Society, UK
2003-2006 Conferred with title of *University Research Lecturer*, Oxford University, UK
2005 Highly Commended for *Young Researcher of the Year* at the Times Higher Awards
2006-2010 Conferred with title of *Reader in Molecular Neuroscience*, Oxford University, UK
2007-2010 Appointed *Isobel Laing Fellow in Biomedical Sciences*, Oriel College, Oxford University, UK
2008 Awarded *Francis Crick Medal and Lecture* (Royal Society, UK)
2008 Delivered the *Nijmegen Lectures*
2009-present Elected Fellow, *Royal Society of Biology*
2009 Awarded inaugural *Eric Kandel Young Neuroscientists Prize* (Hertie Foundation, Germany)
2011-present Elected Member, *International Neuropsychological Symposium*
2012 *Special Presidential Lecturer* at Society for Neuroscience Annual Meeting, New Orleans
2018 Selected to deliver *Norman Geschwind Memorial Lecture*, International Dyslexia Association

PROFESSIONAL MEMBERSHIPS, BOARDS AND COMMITTEES:

- 2007-present** Member of the *American Society of Human Genetics* and the *Society for Neuroscience*
2009-2011 Royal Society Research Grants - Board F (dev. biol./genetics/immunology/microbiology)
2009-2010 Neuroscience Management Board (Co-leader: Genes & Development), Oxford University
2010-present Scientific Member of the *Max Planck Society*
2013 Scientific Committee for *IMFAR: International Meeting For Autism Research*
2013-2017 External Advisory Committee for *University of Connecticut* interdisciplinary training program
2014-present Scientific Advisory Board (Chair since 2016) of the *Netherlands Institute for Neuroscience*
2017 Scientific Committee for *International Conference for Cognitive Neuroscience*
2017-present Member of UCSD/Salk *Center for Academic Research and Training in Anthropogeny (CARTA)*
2018 External Evaluation Committee for *Neuroscience Department, Pasteur Institute, Paris, France*
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JOURNAL EDITORSHIPS:

- 2010-present** Associate Editor of *Frontiers in Language Sciences*
2011-present Section Editor of the *European Journal of Human Genetics*
2013-present Associate Editor of *Neuroscience Research*
2014-present Editorial Board of *Journal of Neurolinguistics*
2015-2017 Reviewing Editor of *Brain and Language*
2019-present Senior Editor of *Neurobiology of Language*
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SELECTED RESEARCH ARTICLES (from 190 papers <https://www.mpi.nl/people/fisher-simon-e/publications>)

- Lloyd SE, Pearce SHS, **Fisher SE**, Steinmeyer K, Schwappach B, Scheinman SJ, Harding B, Bolino A, Devoto M, Goodyer P, Rigden SPA, Wrong O, Jentsch TJ, Craig IW, Thakker RV (1996) A common molecular basis for three inherited kidney stone diseases. *Nature* 379:445-9
- Fisher SE**, Vargha-Khadem F, Watkins KE, Monaco AP, Pembrey ME (1998) Localisation of a gene implicated in a severe speech and language disorder. *Nature Genetics* 18:168-70
- Lai CSL*, **Fisher SE***, Hurst JA, Vargha-Khadem F, Monaco AP (2001) A forkhead-domain gene is mutated in a severe speech and language disorder. *Nature* 413:519-23; *joint first author
- Fisher SE**, Francks C, Marlow AJ, MacPhie IL, Newbury DF, Cardon LR, Ishikawa-Brush Y, Richardson AJ, Talcott JB, Gayán J, Olson RK, Pennington BF, Smith SD, DeFries JC, Stein JF, Monaco AP (2002) Independent genome-wide scans identify a chromosome 18 quantitative-trait locus influencing dyslexia. *Nature Genetics* 30:86-91
- Enard W, Przeworski M, **Fisher SE**, Lai CSL, Wiebe V, Kitano T, Monaco AP, Pääbo S (2002) Molecular evolution of FOXP2, a gene involved in speech and language. *Nature* 418:869-72
- Vernes SC, Newbury DF, Abrahams BS, Winchester L, Nicod J, Groszer M, Alarcón M, Oliver PL, Davies KE, Geschwind DH, Monaco AP, **Fisher SE** (2008) A functional genetic link between distinct developmental language disorders. *New England Journal of Medicine* 359:2337-45
- Groszer M, Keays DA, Deacon RM, de Bono JP, Prasad-Mulcare S, Gaub S, Baum MG, French CA, Nicod J, Coventry JA, Enard W, Fray M, Brown SD, Nolan PM, Pääbo S, Channon KM, Costa RM, Eilers J, Ehret G, Rawlins JN, **Fisher SE** (2008) Impaired synaptic plasticity and motor learning in mice with a point mutation implicated in human speech deficits. *Current Biology* 18: 354-62
- O’Roak BJ, Deriziotis P, Lee C, Vives L, Schwartz JJ, Girirajan S, Karakoc E, MacKenzie AP, Ng S, Baker C, Rieder M, Nickerson D, Bernier R, **Fisher SE**, Shendure J, Eichler EE (2011) Exome sequencing in sporadic autism spectrum disorders identifies severe de novo mutations. *Nature Genetics* 43:585-9
- Deriziotis P, O’Roak BJ, Graham SA, Estruch SB, Dimitropoulou D, Bernier RA, Gerdts J, Shendure JA, Eichler EE, **Fisher SE** (2014) De novo TBR1 mutations in sporadic autism disrupt protein functions. *Nature Communications* 5:4954
- Hibar DP et al. (2015) Common genetic variants influence human subcortical brain structures. *Nature* 520:224-9
- Snijders Blok L,..... **Fisher SE***, Campeau PM* (2018) CHD3 helicase domain mutations cause a neurodevelopmental syndrome with macrocephaly and impaired speech and language. *Nature Communications* 9:4619 *joint senior author
- Gunz P, Tilot AK, Wittfeld K, Teumer A, Shapland CY, van Erp TGM, Dannemann M, Vernot B, Neubauer S, Guadalupe T, Fernández G, Brunner HG, Enard W, Fallon J, Hosten N, Völker U, Profico A, Di Vincenzo F, Manzi G, Kelso J, St Pourcain B, Hublin JJ, Franke B, Pääbo S, Macciardi F, Grabe HJ, **Fisher SE** (2019) Neandertal introgression sheds light on modern human endocranial globularity. *Current Biology* 29:120-7
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SELECTED LECTURES (from >140 invited talks, see <https://www.mpi.nl/people/fisher-simon-e> for full list)

July 2001: **Plenary session speaker.** 31st Annual Meeting, Behavior Genetics Association. Cambridge, UK.

Feb 2003: Symposium 'From gene to speech'. Annual Meeting, American Association for the Advancement of Science (AAAS). Denver, USA.

Nov 2003: Symposium 'Transgenic Models of Complex Behavioral Phenotypes'. 53rd Annual Meeting, American Society of Human Genetics (ASHG). Los Angeles, USA.

Oct 2004: **Keynote.** 16th Annual Meeting of European Academy of Childhood Disability. Edinburgh, UK.

Feb 2006: **Two invited talks in independent symposia.** Symposium 'In Search of Genes that Influence Language: Phenotypes and Molecules' AND Symposium 'Language Evolution: New Perspectives from Genetics, Neuroscience, and Human Infants'. AAAS Annual Meeting. St. Louis, USA.

May 2006: Symposium 'Genetics of speech, reading, writing'. 38th European Human Genetics Conference. Amsterdam, the Netherlands.

Oct 2006: Minisymposium 'Singing mice and songbirds'. 36th Annual Meeting, Society for Neuroscience. Atlanta, USA.

Nov 2006: **Keynote.** Symposium 'Future Directions in Search of Genes that Influence Language'. 31st Boston University Conference on Language Development. Boston, USA.

Aug 2007: **Presenter of Main Report.** 27th World Congress, International Association of Logopedics and Phoniatrics. Copenhagen, Denmark.

Oct 2007: Invited session 'Human brain evolution: What makes us unique?' 57th ASHG Annual Meeting. San Diego, USA.

Dec 2008: **3-day Lecture Series.** Nijmegen Lectures 2008. 'The Nature and Origins of Language: A Genetic Perspective'. Co-presented with Prof. Gary Marcus. Nijmegen, the Netherlands.

Dec 2008: **Prize Lecture.** Francis Crick Prize Lecture. Royal Society, London, UK.

Oct 2009: **Keynote.** 1st Annual Meeting of the Society for the Neurobiology of Language. Chicago, USA.

June 2010: **Plenary.** Plenary session 'Human Language - Lessons from FOXP2'. European Human Genetics Conference 2010. Gothenburg, Sweden.

July 2011: **Plenary.** 12th Congress of the International Association for the Study of Child Language. Montreal, Canada.

Oct 2011: **Invited speaker & session co-moderator.** Invited session 'Neurogenetic Pathways Underlying Speech and Language Disorders'. 12th International Congress on Human Genetics. Montreal, Canada.

March 2012: **Plenary.** 9th International Conference on the Evolution of Language (Evolang IX), Kyoto, Japan.

Oct 2012: **Presidential Special Lecture.** 42nd Annual Meeting, Society for Neuroscience, New Orleans, USA.

Feb 2013: Symposium 'The biology and evolution of human language'. AAAS Annual Meeting. Boston, USA.

April 2013: Symposium 'Building blocks for language'. Cognitive Neuroscience Society 20th Anniversary Meeting, San Francisco, USA.

July 2014, 2016, 2018: **Course leader.** Genetics & Neurobiology of Language, Cold Spring Harbor, New York, USA.

November 2016: **Keynote.** Cambridge Language Sciences Annual Symposium, University of Cambridge, UK.

SUPERVISION AND MENTORING: From 2002-2010 as head of my Oxford research group, I supervised 3 DPhil students (*Sonja Vernes, Fanny Elahi, Joses Ho*), 4 postdoctoral scientists (*Jérôme Nicod, Catherine French, Matthias Groszer, Pelagia Deriziotis*), 4 research assistants and 12 short-term students (summer students, undergraduates studying medicine, postgraduates carrying out MSc projects). Since my move to Nijmegen, I have been promotor of 9 PhD students who have successfully defended their theses at Radboud University (*Alessandro Gialluisi, Martin Becker, Amaia Carrión Castillo, Tulio Guadalupe, Sara Estruch, Rick Janssen, Jon-Ruben van Rhijn, Elliot Sollis, Anna Castells Nobau*), and I have supervised internships of 12 MSc students. I am presently promotor of 8 Nijmegen PhD students (International Max Planck Research School or Donders Graduate School) and 1 Leiden PhD student (co-supervised by Carel ten Cate). I lead a department that includes 2 senior investigators, 7 postdoctoral scientists, a laboratory manager, and 3 technicians.

TEACHING: As *Isobel Laing Fellow* at Oriel College, Oxford University, I was responsible for teaching Biochemistry & Medical Genetics to undergraduates. For over a decade I lectured on a number of Oxford undergraduate and graduate courses. In Nijmegen, I have taught on multiple courses of the Radboud University Cognitive Neuroscience and Medical Biology Masters, as well as for Radboud Summer Schools.

SELECTED RESEARCH SUPPORT: I was the sole applicant on grants listed below, unless otherwise noted.

- Royal Society (UK) University Research Fellowship: Oct 2002-Sept 2010. ~£476,000.
 - Wellcome Trust Project Grant: 'Investigating the role of the Foxp2 transcription factor in mouse neurodevelopment'. March 2004-Feb 2007. ~£243,000.
 - UK Medical Research Council Project Grant (Brain Sciences Initiative): 'Molecular dissection of neural pathways underlying neurodevelopmental disorders'. April 2004-May 2007. ~£218,000.
 - Marie Curie Intra-European Fellowship: Funded by the 6th European Community Framework Programme, Oct 2004-Sept 2006. Postdoctoral fellowship for Dr Jérôme Nicod to work in my lab. ~€159,000.
 - Autism Speaks Pilot Study Grant: 'A CHIP-on-chip system for dissecting genetic pathways involved in developmental language disorders'. July 2006-June 2008. ~\$116,000.
 - Wellcome Trust Project Grant: 'Uncovering the functions of the Foxp2 gene in the mammalian central nervous system'. March 2007-Feb 2010. ~£405,000.
 - Co-Applicant on Wellcome Trust Capital Award: 'Oxford Behavioural and Systems Neuroscience Centre'. Principal Applicant is Prof. J. N. P. Rawlins. Oct 2008-Dec 2011. ~£2M.
 - Simons Foundation Autism Research Initiative (SFARI) Individual Grant: 'Functional Genomic Dissection of Language-Related Disorders'. Dec 2009-Nov 2011. ~\$634,000.
 - Max Planck Society: Longterm core support for 'Language and Genetics' Department. Oct 2010-Aug 2037. Core funding of dept is currently ~€1.5M per annum. I also received equipment startup of €1.1M.
 - Work Package leader and Board Member on NWO Gravitation award: 'Language in Interaction'. Principal Applicant is Prof. P. Hagoort. July 2013-June 2022. ~€27.6M. <https://www.languageininteraction.nl/>
 - Co-Applicant on National Health & Medical Research Council (Aus) award: 'Centre for Research Excellence in Speech & Language Neurobiology'. Principal Applicant is Prof. A. Morgan. Nov 2016-Oct 2021. AUD2.5M.
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COMMUNICATION OF SCIENCE: My work involves frequent interaction with the media. I have conducted interviews for major national newspapers (including the New York Times, The London Times, Daily Telegraph, The Guardian, Financial Times, Le Monde, de Volkskrant), popular science magazines (New Scientist, Scientific American, National Geographic etc.) and radio/TV in the UK, Italy, USA, Canada and Japan. Major documentary interviews include the Channel 4 (UK) TV series 'What Makes Us Human', the PBS (USA) TV series 'The Human Spark', and the award-winning 'What the Songbird Said' for BBC Radio 4. Public engagement includes a 'talking point' (60 minute talk, 30 minute Q&A session) at the Royal Institution (UK) in 2009, a Café Scientifique on 'Talking primates' at the Summer Science Exhibition of the Royal Society (UK) in 2011, and lay talks at Rome's Science Festival (Italy) in 2014, InScience, the Dutch International Science Film Festival in 2016, and New Scientist Live, the UK's biggest science festival, in 2017. I am also active in science communication via social media, especially Twitter (@ProfSimonFisher).

PEER REVIEW: I have acted as peer reviewer for many journals across diverse fields, including:

American Journal of Human Genetics	European Journal of Human Genetics	Nature Genetics
American Journal of Medical Genetics	European Journal of Medical Genetics	Nature Medicine
Annals of Neurology	Genomics	Nature Reviews Neuroscience
Archives of General Psychiatry	Human Genetics	Neural Development
Behavior Genetics	Human Molecular Genetics	Neurobiology of Disease
Biological Psychiatry	Journal of Comparative Neurology	Neuroinformatics
BMC Evolutionary Biology	Journal of Medical Genetics	Neuron
BMC Genetics	Journal of Neurodevelopmental Disorders	Neuroscience
Child Development	Journal of Neuroscience	New England Journal of Medicine
Clinical Genetics	Journal of Neuroscience Research	PLoS Biology
Cortex	Journal of Speech Language Hearing Res	PLoS Genetics
Cognition	Molecular Biology and Evolution	PLoS ONE
Current Anthropology	Molecular and Cellular Biology	Science
Current Biology	Molecular Psychiatry	Trends in Cognitive Sciences
Development	Nature Communications	

In addition, I have reviewed grant proposals for funding bodies in the UK (Wellcome Trust, MRC, BBSRC, SPARKS, Autism Speaks), Europe (Pasteur Institute), US (NIH and NSF), Hong Kong (Research Grants Council).

SIMON E. FISHER - PUBLICATIONS (MARCH 2020)

Peer-reviewed research articles

- 1) Fisher SE, Black GCM, Lloyd SE, Hatchwell E, Wrong O, Thakker RV, Craig IW (1994) Isolation and partial characterization of a chloride channel which is expressed in kidney and is a candidate for Dent's disease (an X-linked hereditary nephrolithiasis). *Hum Mol Genet* 3:2053-9
- 2) Blair HJ, Ho M, Monaco AP, Fisher S, Craig IW, Boyd Y (1995) High-resolution comparative mapping of the proximal region of the mouse X chromosome. *Genomics* 28:305-10
- 3) Fisher SE, Hatchwell E, Chand A, Ockendon N, Monaco AP, Craig IW (1995) Construction of two YAC contigs in human Xp11.23-p11.22, one encompassing the loci OATL1, GATA, TFE3 and SYP, the other linking DDX255 to DDX146. *Genomics* 29:496-502
- 4) Fisher SE, van Bakel I, Lloyd SE, Pearce SHS, Thakker RV, Craig IW (1995) Cloning and characterization of CLCN5, the human kidney chloride channel gene implicated in Dent disease (an X-linked hereditary nephrolithiasis). *Genomics* 29:598-606
- 5) Shipley JM, Birdsall S, Clark J, Crew J, Gill S, Linehan M, Gnarra J, Fisher S, Craig IW, Cooper CS (1995) Mapping the chromosome X breakpoint in two papillary renal cell carcinoma cell lines with a t(X;1) (p11.2; q21.2) and the first report of a female case. *Cytogenet Cell Genet* 71:280-4
- 6) Lloyd SE, Pearce SHS, Fisher SE, Steinmeyer K, Schwappach B, Scheinman SJ, Harding B, Bolino A, Devoto M, Goodyer P, Rigden SPA, Wrong O, Jentsch TJ, Craig IW, Thakker RV (1996) A common molecular basis for three inherited kidney stone diseases. *Nature* 379:445-9
- 7) Weterman MAJ, Wilbrink M, Janssen I, Janssen HAP, van den Berg E, Fisher SE, Craig I, Geurts van Kessel A (1996) Molecular cloning of the papillary renal cell carcinoma-associated translocation (X;1) (p11;q21) breakpoint. *Cytogenet Cell Genet* 75:2-6
- 8) Lloyd SE, Günther W, Pearce SHS, Thomson A, Bianchi ML, Bosio M, Craig IW, Fisher SE, Scheinman SJ, Wrong O, Jentsch TJ, Thakker RV (1997) Characterization of renal chloride channel CLCN5 mutations in hypercalciuric nephrolithiasis (kidney stones) disorders. *Hum Mol Genet* 6:1233-9
- 9) Fisher SE, Ciccodicola A, Tanaka K, Curci A, Desicato S, D'Urso M, Craig IW (1997) Sequence-based exon prediction around the SYP locus reveals a gene rich area containing novel genes in human proximal Xp. *Genomics* 45:340-7
- 10) Fisher SE, Vargha-Khadem F, Watkins KE, Monaco AP, Pembrey ME (1998) Localisation of a gene implicated in a severe speech and language disorder. *Nature Genet* 18:168-70
- 11) Fisher SE, Marlow AJ, Lamb J, Maestrini E, Williams DF, Richardson AJ, Weeks DE, Stein JF, Monaco AP (1999) A quantitative-trait locus on chromosome 6p influences different aspects of developmental dyslexia. *Am J Hum Genet* 64:146-56
- 12) Tanaka K, Fisher SE and Craig IW (1999) Characterisation and genomic organisation of the mouse *Clcn5* gene and identification of putative promoter and enhancer regions. *Genomics* 58:281-92
- 13) Lai CSL¹, Fisher SE¹, Hurst JA, Levy ER, Hodgson S, Fox M, Jeremiah S, Povey S, Jamison DC, Green ED, Vargha-Khadem F, Monaco AP (2000) The SPCH1 region on human 7q31: genomic characterization of the critical interval and localization of translocations associated with speech and language disorder. *Am J Hum Genet* 67:357-68; ¹joint first authors
- 14) Siddiqui MR, Meisner S, Tosh K, Balakrishnan K, Ghei S, Fisher SE, Golding M, Narayan NPS, Sitaraman T, Sengupta U, Pitchappan RM, Hill AVS (2001) A major susceptibility locus for leprosy in India maps to chromosome 10p13. *Nature Genet* 27:439-41
- 15) Marlow AJ, Fisher SE, Richardson AJ, Francks C, Talcott JB, Monaco AP, Stein JF, Cardon LR (2001) Investigation of quantitative measures related to reading disability in a large sample of sib-pairs from the UK. *Behav Genet* 31:219-30
- 16) Lai CSL¹, Fisher SE¹, Hurst JA, Vargha-Khadem F, Monaco AP (2001) A forkhead-domain gene is mutated in a severe speech and language disorder. *Nature* 413:519-23; ¹joint first authors

SIMON E. FISHER - PUBLICATIONS (MARCH 2020)

- 17**) Fisher SE, Francks C, Marlow AJ, MacPhie IL, Newbury DF, Cardon LR, Ishikawa-Brush Y, Richardson AJ, Talcott JB, Gayán J, Olson RK, Pennington BF, Smith SD, DeFries JC, Stein JF, Monaco AP (2002) Independent genome-wide scans identify a chromosome 18 quantitative-trait locus influencing dyslexia. *Nature Genet* 30:86-91
- 18**) The SLI Consortium (2002) A genome-wide scan identifies two novel loci involved in Specific Language Impairment (SLI). *Am J Hum Genet* 70:384-98
- 19**) Francks C, Fisher SE, MacPhie IL, Richardson AJ, Marlow AJ, Stein JF, Monaco AP (2002) A genome wide linkage screen for relative hand skill in sibling pairs. *Am J Hum Genet* 70:800-5
- 20**) Francks C, Fisher SE, Olson RK, Pennington BF, Smith SD, DeFries JC, Monaco AP (2002) Quantitative association analysis within the chromosome 2p12-16 dyslexia susceptibility region: Microsatellite markers and candidate genes SEMA4F and OTX1. *Psych Genet* 12:35-41
- 21**) Fisher SE, Francks C, McCracken JT, McGough JT, Marlow AJ, MacPhie IL, Newbury DF, Crawford LR, Palmer CJS, Woodward JA, Del'Homme M, Cantwell D, Nelson SF, Monaco AP, Smalley SL (2002) A genomewide scan for loci involved in Attention-Deficit/Hyperactivity Disorder. *Am J Hum Genet* 70:1183-96
- 22**) Newbury DF, Bonora E, Lamb JA, Fisher SE, Lai CSL, Baird G, Jannoun L, Slonims V, Stott CM, Merricks MJ, Bolton PF, Bailey A, Monaco AP and the International Molecular Genetic Study of Autism Consortium (2002) FOXP2 is not a major susceptibility gene for autism or Specific Language Impairment (SLI). *Am J Hum Genet* 70:1318-27
- 23**) Enard W, Przeworski M, Fisher SE, Lai CSL, Wiebe V, Kitano T, Monaco AP, Pääbo S (2002) Molecular evolution of FOXP2, a gene involved in speech and language. *Nature* 418:869-72
- 24**) Smalley SL, Kustanovich V, Minassian SL, Stone J, Ogdie M, McGough JJ, McCracken, MacPhie IL, Francks C, Fisher SE, Cantor RM, Monaco AP, Nelson SF (2002) Genetic linkage of Attention-Deficit/Hyperactivity Disorder (ADHD) on chromosome 16p13 in a region implicated in autism. *Am J Hum Genet* 71:959-63
- 25**) Francks C, DeLisi LE, Fisher SE, Laval SH, Rue JE, Stein JF, Monaco AP (2003) Confirmatory evidence for linkage of relative hand skill to 2p12-q11. *Am J Hum Genet* 72:499-502
- 26**) Marlow AJ, Fisher SE, Francks C, MacPhie IL, Richardson AJ, Talcott JB, Stein JF, Monaco AP, Cardon LR (2003) Use of multivariate linkage analysis for dissection of a complex cognitive trait. *Am J Hum Genet* 72:561-70
- 27**) Ogdie MN, Macphie IL, Minassian SL, Yang M, Fisher SE, Francks C, Cantor RM, McCracken JT, McGough JJ, Nelson SF, Monaco AP, Smalley SL (2003) A genome-wide scan for Attention-Deficit/Hyperactivity Disorder in an extended sample: suggestive linkage on 17p11. *Am J Hum Genet* 72:1268-79
- 28**) Lai CSL, Gerrelli D, Monaco AP, Fisher SE¹, Copp AJ¹ (2003) FOXP2 expression during brain development coincides with adult sites of pathology in a severe speech and language disorder. *Brain* 126:2455-62; ¹joint corresponding authors
- 29**) Francks C, Fisher SE, Marlow AJ, MacPhie IL, Taylor KE, Richardson AJ, Stein JF, Monaco AP (2003) Familial and genetic effects on motor coordination, laterality, and reading-related cognition. *Am J Psych* 160:1970-7
- 30**) Francks C, DeLisi LE, Shaw SH, Fisher SE, Richardson AJ, Stein JF, Monaco AP (2003) Parent-of-origin effects on handedness and schizophrenia susceptibility on chromosome 2p12-q11. *Hum Mol Genet* 12:3225-30
- 31**) Loo SK, Fisher SE, Francks C, Ogdie MN, MacPhie IL, Yang M, McCracken JT, McGough JJ, Nelson SF, Monaco AP, Smalley SL (2004) Genome-wide scan of reading ability in affected sibling pairs with attention-deficit/hyperactivity disorder: unique and shared genetic effects. *Mol Psychiatry* 9:485-93
- 32**) Ogdie MN, Fisher SE, Yang M, Ishii J, Francks C, RM, McCracken JJ, McGough JT, Smalley SL, Nelson SF (2004) Attention Deficit Hyperactivity Disorder: fine mapping supports linkage to 5p13, 6q12, 16p13, and 17p11. *Am J Hum Genet* 75:661-8

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- 33)** The SLI Consortium (2004) Highly significant linkage to the SLI1 locus in an expanded sample of individuals affected by specific language impairment. *Am J Hum Genet* 74:1225-38
- 34)** Scerri TS, Fisher SE, Francks C, MacPhie IL, Paracchini S, Richardson AJ, Stein JF, Monaco AP (2004) Putative functional alleles of DYX1C1 are not associated with dyslexia susceptibility in a large sample of sibling pairs from the UK. *J Med Genet* 41:853-7
- 35)** Francks C, Paracchini S, Smith SD, Richardson AJ, Scerri TS, Cardon LR, Marlow AJ, MacPhie IL, Walter J, Pennington BF, Fisher SE, Olson RK, DeFries JC, Stein JF, Monaco AP (2004) A 77 kilobase region of chromosome 6p22.2 is associated with dyslexia in families from the United Kingdom and from the United States. *Am J Hum Genet* 75:1046-58
- 36)** MacDermot KD, Bonora E, Sykes N, Coupe AM, Lai CSL Vernes SC, Vargha-Khadem F, McKenzie F, Smith RL, Monaco AP, Fisher SE (2005) Identification of FOXP2 truncation as a novel cause of developmental speech and language deficits. *Am J Hum Genet* 76:1074-80
- 37)** Gayán J, Willcutt EG, Fisher SE, Francks C, Cardon LR, Olson RK, Pennington BF, Smith SD, Monaco AP, DeFries JC (2005) Bivariate linkage scan for reading disability and attention-deficit/hyperactivity disorder localizes pleiotropic loci. *J Child Psychol Psychiatr* 46:1045-56
- 38)** Ogdie MN, Bakker SC, Fisher SE, Francks C, Yang MH, Cantor RM, Loo SK, van der Meulen E, Pearson P, Buitelaar J, Monaco A, Nelson SF, Sinke RJ, Smalley SL (2006) Pooled genome-wide linkage data on 424 ADHD ASPs suggests genetic heterogeneity and a common risk locus at 5p13. *Mol Psychiatry* 11:5-8
- 39)** Vernes SC, Nicod J, Elahi FM, Coventry JA, Kenny N, Coupe A-M, Bird LE, Davies KE, Fisher SE (2006) Functional genetic analysis of mutations implicated in a human speech and language disorder. *Hum Mol Genet* 15:3154-67
- 40)** French CA, Groszer M, Preece C, Coupe A-M, Rajewsky K, Fisher SE (2007) Generation of mice with a conditional Foxp2 null allele. *Genesis* 45:440-6
- 41)** Monaco AP & The SLI Consortium (2007) Multivariate linkage analysis of Specific Language Impairment (SLI). *Ann Hum Genet* 71:660-73
- 42)** Francks C, Maegawa S, Laurén J, Abrahams B, Velayos-Baeza A, Medland SE, Colella S, Groszer M, McAuley EZ, Caffrey TM, Timmus T, Pruunsild P, Koppel I, Lind PA, Matsumoto-Itaba N, Nicod J, Xiong L, Joober R, Enard W, Krinsky B, Nanba E, Richardson AJ, Riley BP, Martin NG, Strittmatter SM, Möller H-J, Rujescu D, St Clair D, Muglia P, Roos JL, Fisher SE, Wade-Martins R, Rouleau GA, Stein JF, Karayiorgou M, Geschwind DH, Ragoussis J, Kendler KS, Airaksinen MS, Oshimura M, DeLisi LE, Monaco AP (2007) LRRTM1 on chromosome 2p12 is a maternally suppressed gene that is associated paternally with handedness and schizophrenia. *Mol Psychiatry* 12:1129-39, 1057
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