

Prof Linda J. Richards, PhD



Queensland Brain Institute • University of Queensland, Bldg #79 • St. Lucia QLD 4072 AUSTRALIA
Phone: +61 7 3346 6355 • Fax: +61 7 3346 6301 • E-Mail: richards@uq.edu.au
Web: www.qbi.uq.edu.au • www.corpuscallosum.org.au

Current Appointment

- Professor (Continuing Appointment) 1/10 - Present
Queensland Brain Institute and School of Biomedical Sciences, University of Queensland
Head of Cortical Development and Axon Guidance Laboratory
- NH&MRC Principal Research Fellow 1/11 – 12/15

Previous Appointments

- Associate Professor 5/05 – 12/09
Queensland Brain Institute and School of Biomedical Sciences, University of Queensland
- NH&MRC Senior Research Fellow (SRF-B) 1/06 – 12/10
- Associate Professor with Tenure 7/02 – 05/05
Department of Anatomy and Neurobiology, The University of Maryland School of Medicine
- Assistant Professor (Tenure-track) 8/97 – 06/02
Department of Anatomy and Neurobiology, The University of Maryland School of Medicine
- Postdoctoral Position Lucille P. Markey Fellow 1994 - 1997
Laboratory of Prof. Dennis D.M. O'Leary, Molecular Neurobiology Laboratory
The Salk Institute for Biological Sciences

Academic Qualifications

- Doctorate of Philosophy 1991 – 1993
The Walter and Eliza Hall Institute of Medical Research, Melbourne
Thesis title: Regulation of differentiation and lineage determination in the central nervous system.
Supervisor: Prof. Perry F. Bartlett. PhD conferred, 18/3/95
- Bachelor of Science Degree (Honours) 1990
The Walter and Eliza Hall Institute of Medical Research, Melbourne
Pass with 1st class honours, Supervisor: Prof. Perry Bartlett

Awards, incl. Fellowships

- 2011: NH&MRC Principal Research fellow
- 2010: Australian Neuroscience Society - Nina Kondelos Prize for a female neuroscientist who has made an outstanding contribution to basic or clinical neuroscience research.
- 2006: NH&MRC Senior Research Fellow (Level B)
- 2004: Charles Judson Herrick Award, conferred by the American Association of Anatomists in recognition of “young investigators who have made important contributions to the field and have demonstrated remarkable promise of future accomplishments”.
- 1994: The Lucille P. Markey Visiting Post-Doctoral Fellowship
- 1993: The Queen Elizabeth II Trust for Young Australians Award for Special Projects
- 1991: Australian Postgraduate Research Award (High-Priority)

Grant Review Panel

- 2002 Member of NIH Study Section for the National Institute Of Child Health and Human Development Special Emphasis Panel ZHD1 MCHG-B (BI). Program Grant Committee (to review multi-investigator and Multisite collaboration grants)
- 2004 Member of NIH Study section Section SMI (Sensory Motor Integration). This study section meets three times a year to review approximately 100 NIH project grants (R01s)
- 2004 Member of NIH Study Section ZRG1-F02B fellowship review committee. (This study section meets three times a year to review approximately 100 graduate students and postdoctoral fellowships).
- 2005 Ad hoc member of Study Section on Developmental Brain Disorders for the NIH
- 2006, 2008-2012 Member of NH&MRC GRP4 (Molecular and Cellular Neuroscience)
- 2005 - 2008 ARC Intreader
- 2009 - 2011 ARC Ozreader

Research Grants and Projects in the last 5 years

Currently:

Year	Title of Current Grant, Contract or Project	Granting Agency	Amount (if any) \$	Chief Investigators & Staff Member in order	% and Nature of your Contribution
2012	Project grant, Molecular and activity dependent mechanisms regulating the targeting of corpus callosum axons in the contralateral hemisphere	NHMRC	399,263	Linda Richards	Sole CI
2012-2014	Project Grant: Nfib regulates glial differentiations via epigenetic chromatin modification	NHMRC	553,675	Mike Piper, Linda Richards, A. Boyd, Timothy Bailey	CIB
2011-2015	Senior Research Fellowship	NHMRC	690,000	Linda Richards	CI
2011-2012	Project Grant, Suppression of high-grade glioma by Nfib overexpression	Cancer Council QLD	196,452	Linda Richards	CIA – 30%
2010-2012	Project Grant, DCC-Robo interactions cooperate to regulate callosal axon guidance	NHMRC	369,750	Linda Richards	Sole CI
2010-2012	Project Grant, Fibroblast growth factors in the development of forebrain commissures.	NHMRC	480,125	Linda Richards	CIA - 80%
2009-2013	Discovery Grant, Specialised glial cells within the hippocampus of the brain regulate important morphological events in embryonic development.	ARC	760,000	Linda Richards	Sole CI
2011	Uniquist - Pathfinder	Uniquist	50,000	Linda Richards	CIA
2011	Infrastructure Grant, Mass spectrometry platform for	ARC	240,000	Bredy, Claudianos,	CIA – 25%

	high throughput genotyping, epigenetic analysis and validation of genome wide sequencing studies			Richards, Grimmond, Lawrence, Mowry	
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Completed in the last 5 years:

Year	Title of Completed Grant or Contract	Granting Agency	Amount (if any) \$	Chief Investigators & Staff Member in order	Percent and Nature of your Contribution
2009-2011	Project Grant, Nuclear Factor One genes regulate multiple aspects of cerebral cortex development.	NHMRC	506,250	Linda Richards	Sole CI
2006-2010	Senior Research Fellowship Level B	NHMRC	591,000	Linda Richards	CI
2007-2009	Project Grant, The role of Netrin-DCC in development of the corpus callosum.	NHMRC	492,000	Linda Richards	Sole CI
2007-2009	Project Grant, Development of the commissural plate and its role in forebrain commissure development.	NHMRC	507,000	Linda Richards	Sole CI
2007-2009	Project Grant, The dynamics of gradient sensing by growth cones: time-lapse imaging and mathematical modelling.	NHMRC	468,000	Geoffrey Goodhill Linda Richards	CIB – 10%
2007-2009	Project Grant, Wnt-Ryk signalling in the establishment of major axon tracts in the embryonic mouse brain development.	NHMRC	492,000	Helen Cooper Linda Richards	CIB – 10%
2007	Australian Brain Bee Challenge Education Outreach grant	IBRO Education Fund	2000 Euros	Linda Richards	Sole CI
2006-2008	Project Grant Regulation of cortical development by Nfi genes	NHMRC	462,750	Linda Richards	Sole CI
2005-	Project Grant The	March of	217,240	Linda Richards	Sole CI

2008	role of Slit and Robo proteins in development of the corpus callosum.	Dimes Grant Foundation for Birth Defects			
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Invited Conference Presentation

I have had numerous invitations to speak at some of the world's foremost forums on Developmental Neuroscience, including:

Named lectures at conferences

2004 CJ Herrick Special Lecture at the Experimental Biology Conference (Washington, DC, USA)

International conference presentations

2011 Invited speaker - the 11th Brain Connectivity Workshop, Chengdu, China
Invited speaker and member of organising committee - International Society for Developmental Neurobiology meeting, Mumbai, India
Invited speaker - The Cajal Club, Society for Neuroscience meeting, Washington DC
Invited speaker - Wiring the Brain, Ireland

2010 Invited speaker Exciting Biologies: Biology of Recognition from October 7-9 2010, Singapore, sponsored by Massachusetts General Hospital, Fondation ISPEN and Cell Press

2010 Invited Speaker and Co-organiser – Cold Spring Harbor Asia, Francis Crick Neuroscience Symposium

2009 Invited speaker – International conference on brain development “Construction and Reconstruction of the brain”, Awaji Island, Japan

2008 Invited speaker and session chair: Cortical Development Meeting, Crete, Greece
Symposium Organiser – Cold Spring Harbor Axon Guidance Meeting, USA

2007 Invited Speaker – Novartis Foundation Symposium on Cortical Development, London, UK (only 16 speakers and 10 participants took part in this historic meeting).

2006 Invited speaker – Brainstorming in Bombay, 8th IBRO School Tata Institute, Mumbai, India

2005 Speaker – Society for Neuroscience meeting, USA

2004 Invited speaker – Gordon Conference on Neural Development, Rhode Island, US
Invited speaker – Austrian Science Research Fund Conference on Molecular Mechanisms of Cell Differentiation and Growth, Vienna, Austria.

2003 Speaker – EMBO Semaphorin Symposium, Corsica, France.

2001 Invited speaker – Universidade Federal Do Rio de Janeiro, Instituto De Ciencias Biomedicas, Brazil (Invited by the UNESCO Chair of Developmental Biology).

1996 Invited speaker – The American Cell Biology Meeting (San Francisco, USA)

National conference presentations

2011 Invited speaker – the 12th International Child Neurology Congress, Brisbane
Invited speaker and member of organising committee – Hunter Cell and Developmental Biology meeting, incorporating the 5th Imaging workshop, Hunter Valley
Speaker – Australian Neuroscience Society meeting, Gold Coast

2010 Plenary Speaker – Australian New Zealand Society for Neuropathology, Mechanisms of corpus callosum formation

- 2008 Speaker – Australian Neuroscience Society meeting. Hobart.
- 2007 Invited speaker – University of Queensland Molecular Imaging Symposium, Brisbane, QLD
 Invited speaker – The Hunter Cell Biology Conference, Hunter Valley, NSW (no expenses paid)
 International Brain Research Conference, Melbourne (invited speaker in two symposia; “Get up and go: growth cone guidance in development and disease” and “Scientists responsibility to the public”
- 2006 Invited speaker and symposium co-organiser – Australian Society for Neuroscience
 Invited speaker – COMBIO conference, Adelaide
 Invited speaker – Second Pacific Rim Brain Conference, Noosa, QLD

Invited seminars

- 2009 Mater Medical Centre, Brisbane
 RBWH dysmorphology group – hosted by Dr Stephen Sinnott
 Institute for Biophysics, Beijing, China
 Institute for Neuroscience, Shanghai, China
- 2008 BWH Clinical Genetics Department – host Dr Julie McGaughan
- 2008 Invited speaker – Australian and New Zealand Child Neurology retreat, Children’s Medical Research Institute, Sydney
 Centre for Molecular Genetics and Development – Australian National University
 Centre for Molecular Genetics and Development – University of Adelaide
 Australian and New Zealand Pediatric Neurologists annual retreat Royal Brisbane and Women’s Hospital – Clinical genetics Unit Children’s Medical Research Institute, Sydney.
 The University of Newcastle, Department of Neuroscience
- 2007 Otago University, Dunedin, New Zealand
 Royal Brisbane and Women’s Hospital Neonatology Unit,
 Royal Brisbane and Women’s Hospital Dysmorphology Group (Fetal Medicine)
- 2006 University of Massachusetts, Amherst, USA
 Columbia University, New York
- 2005 University of Utah
 Institute for Molecular Biosciences, UQ, Brisbane (The Toshiya Yamada Memorial Lecture during Brain Awareness Week)
 The University of Sydney, Department of Neuroscience
 The University of Edinburgh, Edinburgh
 The University of Queensland, School of Biomedical Sciences, Brisbane
- 2004 Johns Hopkins Medical School
 Kings College, MRC Centre for Developmental Neurobiology, London
- 2003 The University of Edinburgh, Edinburgh
 University of Queensland, Brisbane
 Prince of Wales Medical Research Institute, Sydney
 John Curtin School of Medical Research, Australian National University, Canberra
 NIH/NINDS Intramural Program – Developmental Biology Group
 Carnegie Institute, Baltimore, Georgetown University
 The Walter and Eliza Hall Institute for Medical Research, Melbourne
- 2002 Johns Hopkins Medical School, Chicago Medical School
 Center for Molecular and Behavioral Research, Rutgers University, New Jersey
- 2001 The Gatsby Centre for Computational Neuroscience, University College, London.
- 2000 The Walter and Eliza hall Institute for Medical Research, Melbourne
- 1999 Georgetown University
- 1998 George Washington University
- 1997 The University of Maryland, Baltimore

Supervision PhD Students/ Masters and Honours

UQ STUDENTS		Date Enrolment	Thesis Submitted
PhD	Ben Kamien (NHMRC Fellowship)	02/10	Withdrawn 06/10
PhD	Sha Liu (Chinese fellowship)	4/09	ongoing
PhD	Jiajia Yuan (Chinese fellowship)	03/09	ongoing
PhD	Clare Giacomontonio (Australian postgraduate award)	9/08	ongoing
PhD	Ilan Gobius (Australian postgraduate award)	8/08	ongoing
PhD	Janette Thurley (independent funding)	10/07	Withdrawn 01/10
PhD	Charlotte Clark (Nee Deversen) (Australian postgraduate award)	2/07	ongoing
PhD	Sharon Mason (Australian postgraduate award)	2/07	ongoing
PhD	Amber-Lee Donohoo (Nee Dawson) (Australian postgraduate award)	2/07	Graduated 12/11
PhD	Stacey Cole (Australian postgraduate award)	3/06	Graduated 12/10
PhD	Divya Unni (UQ International postgraduate research scholarship)	3/06	Graduated 12/10
Masters	Jeff Thompson	1/11	Graduated
Masters	Athina Eu	2/12	ongoing
Masters	Laura Fenlen	2/12	ongoing
Masters	Gayeshika Leanage	03/10	ongoing
Masters	Brett Fisher	01/10	04/10
Masters	Asheeta Prasad	3/05	10/05
Honours	Tess Evans		ongoing
Honours	Amelia Douglas	2/11	ongoing
Honours	Skyle Murphy	2/10	10/10
Honours	Oressia Zalucki	2/08	10/08
Honours	Ilan Gobius	6/07	05/08
Honours	Amber-Lee Donahoo	2/05	10/05
Honours	Andrew Thompson	6/07	05/08
Honours	Janet Thurley	6/06	05/07
Honours	Ashley Skilleter	2/08	10/08

Theses Examined

		Year
PhD	Lorraine Badger (PhD in Education – Flinders University)	2012
Honours	Sophie Hill	2012
	Sam Pelly	2010
	Liam Coulthard	2009
	Gilang Baiquni	2008

	Margeret O'Connell	2008
	Claire Foldi	2007
	Ji-Eun Shin	2007
	Mark Mayhew	2006
	Alicia Rawlings	2006
	Warin Wirojanagud	2006
	Danakai Bradford	2005
	Nicole Berkhout	2005

Publications

My publications are in leading journals (excluding reviews, 9 x Journal of Neuroscience, 4 x PNAS, 3 x Development, 2 x Nature Neuroscience, Cerebral Cortex and Neuron, 1 x Developmental Cell, and Molecular and Cellular Biology). Papers in Developmental Cell and Development in 2003 were designated "must read" by the Faculty of 1000.

My work has attracted over 2800 citations (in 2011 ~ 400 citations). Overall, 7 papers have attracted >100 citations (one >300 citations). A further 18 papers have >40 citations. Since 2005 I have produced 31 primary research papers in top-tier journals (including Journal of Neuroscience and Development papers), 6 review articles (including Nature Reviews Neuroscience, Current Opinion in Neurobiology and TINS papers) and two book chapters (Novartis Foundation Symposium and Cold Spring Harbor Perspec. Biol.). These are highly ranking journals in the field. For example Nature Reviews Neuroscience is the seventh highest ranked journal in the Neurosciences (out of 200 total Neuroscience journals). In addition to this paper, I have also published papers in Nature Neuroscience (ranked 5th in the Neurosciences), Neuron (ranked 6th in the Neurosciences) and TINS (ranked 7th in the Neurosciences) as well as in the Journal of Neuroscience (ranked 17th in the Neurosciences). My current h-index is 29.

Scholarly Book Chapters

Chedotal A and **Richards LJ** (2010) Wiring the brain: The Biology of Neuronal guidance. *Cold Spring Harb. Perspect. Biol.* 2010;2:a001917

Piper M, Dawson A, Lindwall C, Barry G, Planchez C and Richards LJ (2007) Emx and Nfi genes regulate cortical development and axon guidance in the telecephalon. Novartis Foundation Symposium 2007:288 230-242; discussion 242-245, 276-281

Refereed Journal Articles

Richards LJ, Kilpatrick TJ, Bartlett PF and Murphy M (1992). Leukemia inhibitory factor promotes the neuronal development of spinal cord precursors from the neural tube. *J. Neurosci. Res.* 33: 476-484.

Richards LJ, Kilpatrick TJ and Bartlett PF (1992). De novo generation of neuronal cells from the adult mouse brain. *Proc. Natl. Acad. Sci. USA* 89: 8591-8595.

Rosenfeld JV, **Richards LJ** and Bartlett PF, (1993). Mutant mouse cerebellum does not provide specific signals for the selective migration and development of transplanted Purkinje cells. *Neurosci. Lett.* 155 (1): 19-23.

Bartlett PF, Kilpatrick TJ, **Richards LJ**, Ford MD, Nurcombe V, Murphy M (1994). Regulation of Neural Precursors in the Developing and Adult Nervous System. *Clin. Exp. Pharm. Physiol.* 64: 371-393.

Bartlett PF, Kilpatrick TJ, **Richards LJ**, Talman PS and Murphy M (1994). Regulation of the early development of the nervous system by growth factors. *Pharmac. Ther.* 64: 371-393.

Cheema SS, **Richards LJ**, Murphy M and Bartlett PF, (1994). Leukemia Inhibitory Factor rescues motoneurons from axotomy-induced cell death. *Neuroreport* 5(8): 989-992.

Cheema SS, **Richards LJ**, Murphy M and Bartlett PF, (1994). Leukemia inhibitory factor prevents the death of axotomised sensory neurons in the dorsal root ganglia of the neonatal rat. *J. Neurosci. Res.*, 37: 213-218.

Bartlett PF, **Richards LJ**, Kilpatrick TJ, Talman PS, Bailey K, Brooker G, Dutton R, Koblar S, Nurcombe V, Ford M, Cheema SS, Likiardopoulos V, Barrett G and Murphy M (1995). Factors Regulating the Differentiation of Neural Precursors in the Forebrain in Development of the Cerebral Cortex. Eds: Blakemore, Cardew and Bock. *Ciba Foundation Symposium 193*: 85-99, Wiley, Chichester.

- Kilpatrick TJ, **Richards LJ** and Bartlett PF, (1995). The regulation of neural precursor cells within the mammalian brain. *Mol. Cell Neurosci.*, 6 (1):2-15.
- Richards LJ**, Murphy M, Dutton R, Kilpatrick TJ, Puche AC, Key B, Tan S-S, Talman PS, and Bartlett PF, (1995) Lineage specification of neuronal precursors in the mouse spinal cord. *Proc. Natl. Acad. Sci. USA* 92, 10079-10083.
- O'Leary DDM, Bastmeyer M, Daston M, Koester SE, **Richards LJ** and Yee KT, (1996). Development of cortical output projections: axon guidance, target recognition, and plasticity. An Integrative and Molecular approach to brain function. Eds, M. Ito and Y. Miyashita, Elsevier Publishing, Tokyo.
- Moriyoshi K, **Richards LJ**, Akazawa C, O'Leary DDM and Nakanishi S, (1996). Labeling neural cells using adenoviral gene transfer of membrane-targeted GFP. *Neuron* 16, 255-260.
- Richards LJ**, Kilpatrick TJ, Dutton R, Tan S-S, Gearing DP, Bartlett PF and Murphy M (1996). Leukemia Inhibitory factor (LIF) or related factors promote the differentiation of neuronal and astrocytic precursors within the developing murine spinal cord. *Eur. J. Neurosci.* 8, 291-299.
- Richards LJ**, Koester SE, Tuttle R and O'Leary DDM(1997). Directed growth of early cortical axons is influenced by a chemoattractant released from an intermediate target. *J.Neurosci.*, 17 (7):2445-2458.
- Tuttle R, Braisted JE, **Richards LJ** and O'Leary DDM (1998). Retinal axon guidance by region-specific cues in diencephalon. *Development*, 25, 791-801.
- Goodhill GJ and **L.J Richards** (1999) Retinotectal maps: molecules, models and misplaced data. *Trends in Neurosciences*, 22 (12), 529-534.
- Shu T, Valentino KM, Seaman C, Cooper HM and **Richards LJ** (2000). Expression of the Netrin-1 receptor, deleted in colorectal carcinoma (DCC), is largely confined to projecting neurons in the developing forebrain. *J. Comp. Neurol.*, 416, 201-212.
- Gad JM, Keeling SL, Shu T, **Richards LJ** and Cooper HM (2000). The spatial and temporal expression patterns of Netrin receptors DCC and Neogenin, in the developing mouse retina. *Exp. Eye Res.*, 70(6): 711-722.
- Ivic L, Pyrski M, Margolis JW, **Richards LJ**, Firestein S and Margolis FL (2000) Adenoviral vector-mediated rescue of the OMP-null phenotype in vivo. *Nature Neurosci.*, 3(11), 1113-1120.
- Rash and **Richards LJ** (2001). A role for cingulate axons in pioneering the corpus callosum *J. Comp. Neurol.* 434:147-157.
- Shu T and **Richards LJ** (2001). Cortical axon guidance by the glial during development of the corpus callosum *J. Neurosci.* 21:2749-2758.
- Shu T, Shen W-B and **Richards LJ** (2001) Development of the perforating pathway: An ipsilaterally projecting pathway between the Medial Septum/Diagonal Band of Broca and the cingulate cortex that intersects the corpus callosum *J. Comp. Neurol.* 436:411-422.
- Richards LJ** (2002) Surrounded by Slit-how forebrain commissural axons can be led astray. *Neuron* 2002 Jan 17;33(2):153-5.
- Richards LJ** (2002). Axonal pathfinding mechanisms at the cortical midline and in the development of the corpus callosum. *Braz. J. Med. Biol. Res.* 35: 1431-1439.
- Shu T, Butz KG, Gronostasjki RM, **Richards LJ** (2003) Abnormal development of forebrain midline glia and commissural projections in Nfia knockout mice. *Journal of Neuroscience* 23: 203-212.
- Leingartner A, **Richards LJ**, Dyck RH, Akazawa C, O'Leary DDM (2003) Cloning and cortical expression of rat Emx2 and adenovirus-mediated overexpression to assess its regulation of area-specific targeting of thalamocortical axons. *Cerebral Cortex* 13: 648-660.
- Shu T, Li Y, Keller A, **Richards LJ** (2003) The glial sling is a migratory population of developing neurons. *Development* 130: 2929-2937. This paper was featured as a "highlight" article in *Nature Neuroscience Reviews*.
- Shu T, Puche AC, **Richards LJ** (2003) Development of midline glial populations at the corticoseptal boundary. *Journal of Neurobiology* 57: 81-94.
- Gu C, Reimert D, Shu T, **Richards LJ**, Rodriguez ER, Kolodkin AL, Ginty DD (2003) Neuropilin-1 is a multifactorial receptor for distinct ligands in vivo controlling neural and cardiovascular development. *Developmental Cell* 5: 45-57.
- Zhang J, **Richards LJ**, Yarowsky P, Huang H, van Zijl PCM, Mori S (2003) Three dimensional anatomical characterization of the developing mouse brain by diffusion tensor microimaging. *NeuroImage* 20:1639-1648.
- Rosoff WJ, Urbach JS, Esrick MA, McAllister RG, **Richards LJ**, Goodhill GJ (2004) A novel chemotaxis assay reveals the extreme sensitivity of axons to molecular gradients. *Nature Neuroscience* 7: 678-682. This article was featured as a "News and Views" article in the same issue and was selected by members of the Faculty of 1000.
- Richards LJ**, Planchez C and Ren T (2004) Mechanisms regulating the development of the corpus callosum and its agenesis in mouse and human. *Clin. Genet.* 2004 Oct;66(4):276-89.
- Steele-Perkins G, Planchez C, Butz KG, Yang G, Bachurski CJ, Kinsman SL, Litwack ED, **Richards LJ**, Gronostasjki RM (2005) The transcription factor Nfib is essential for both lung maturation and brain development. *Molecular and Cellular Biology* 25: 685-698.
- Planchez C, **Richards LJ** (2005) Mechanisms of axon guidance in the developing nervous system. *Current Topics in Developmental Biology* 69: 267-346.
- Zhang J, Chen Y, Miller MI, Planchez C, Hardwick JM, **Richards LJ**, Yarowsky P, van Zijl P, Mori S (2005) Magnetic resonance diffusion tensor microimaging reveals a role for Bcl-x in brain development and homeostasis *Journal of Neuroscience* 25: 1881-1888.

- Zhang J, Miller MI, Plachez C, **Richards LJ**, Yarowsky P, van Zijl P, Mori S (2005) Mapping postnatal mouse brain development with diffusion tensor microimaging. *NeuroImage* 26: 1042-1051.
- Shu T, Sundaresan V, McCarthy MM and **Richards LJ** (2003) Slit2 guides both precrossing and postcrossing callosal axons at the midline in vivo. *Journal of Neuroscience* 23: 8176-8184
- Shen W-B, Plachez C, Mongi AS, **Richards LJ** (2006) Identification of candidate genes at the corticoseptal boundary during development. *Mech. Devel., Gene Expr. Patterns* 288: 191-204
- Ren T, Anderson A, Shen W-B, Huang H, Plachez C, Zhang J, Mori S, Kinsman SL, **Richards LJ** (2006) Imaging, anatomical and molecular analysis of callosal formation in the developing human fetal brain. *Anat. Record A*. 288; 191-214. (Special Edition on Neural Development).
- Andrews W, Liapi A, Plachez C, Camurri L, Zhang J, Mori S, Murakami F, Parnavelas JG, Sundaresan V, and **Richards LJ** (2006) Robo1 regulates the development of major axon tracts and interneuron migration in the forebrain. *Development* 133; 2243-2252. (cover image)
- Huang H, Zhang J, Wakana S, Zhang W, Ren T, **Richards LJ**, Yarowsky P, Donohue P, Graham E, van Zijl P and Mori S. (2006) White and Gray Matter Development in Human Fetal, Newborn and Pediatric Brains. *Neuroimage*, 33; 27-38
- Paul LK, Brown WS, Adolphs R, Tyszka JM, **Richards LJ**, Mukherjee P, and Sherr EH. (2007) Agenesis of the corpus callosum: genetic, developmental and functional aspects of connectivity. *Nat Rev Neurosci*. 8; 287-299.
- Lindwall C, Fothergill T, and **Richards LJ**. (2007) Commissure formation in the mammalian forebrain. *Curr Opin Neurobiol*. 17; 3-14.
- Ren T, Zhang J, Plachez C, Mori S, and **Richards LJ** (2007) Diffusion tensor magnetic resonance imaging and tract-tracing analysis of Probst bundle structure in netrin-1 and DCC-deficient mice. *J. Neurosci*. 27; 10345-10349.
- Mortimer D, Fothergill T, Pujic Z, **Richards LJ** and Goodhill GJ (2008) Growth Cone chemotaxis. *Trends in Neuroscience*, 31; 90-98.
- Plachez C, Lindwall C, Sunn N, Piper M, Moldrich RX, Campbell CE, Osinski JM, Gronostajski RM and **Richards LJ** (2008) Nuclear Factor One gene expression in the developing forebrain. *J. Comp. Neurol*. 508; 385-401. (cover)
- Plachez C, Andrews W, Liapi A, Knoell B, Dreachler U, Mankoo B, Zhe L, Mambetisaeva E., Annan A, Bannister L, Parnavelas JG, **Richards LJ**, and Sundaresan V (2008) Robos are required for the correct targeting of retinal ganglion cell axons in the visual pathway of the brain. *Mol. Cell Neurosci*. 37; 719-713.
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- Barry G, Piper M, Lindwall C, Moldrich R, Mason S, Little E, Sarkar A, Tole S, Gronostajski RM, and **Richards LJ**. (2008) Specific glial populations regulate hippocampal morphogenesis *J. Neurosci*. 19; 28 (47):12328-12340.
- Mason S, Piper M, Gronostajski RM, **Richards LJ**. (2008) Nuclear Factor One transcription factors in CNS development. *Mol Neurobiol*. 39; 10-23.
- Kumbasar A, Plachez C, Gronostajski R, **Richards LJ**, and Litwack ED. (2009) Absence of the transcription factor Nfib delays the formation of the basilar pontine and other mossy fiber nuclei. *J. Comp. Neurol* 513; 98-112.
- McGrath JJ and **Richards LJ**. (2009) Why schizophrenia epidemiology needs neurobiology – and vice versa. *Schizophrenia Bulletin* 35; 577-581.
- Piper M, Plachez C, Zalucki O, Fothergill T, Erzurumlu R, Gu C, and **Richards LJ** (2009) Neuropilin1 regulates crossing of cingulate pioneering axons during development of the corpus callosum. *Cerebral Cortex* 19, Suppl 1; 11-21.
- Huang H, Xue R, Zhang J, Ren T, **Richards LJ**, Yarowsky P, Miller MI, Mori S. (2009) Anatomical characterization of human fetal brain development with diffusion tensor magnetic resonance imaging. *J. Neurosci*. 29; 4263-4273.
- Mortimer D, Feldner J, Vaughan T, Vetter I, Pujic Z, Rosoff WJ, Burrage K, Dayan P, **Richards LJ**, Goodhill GJ (2009) A Bayesian model predicts the response of axons to molecular gradients. *Proc. Natl. Acad Sci. (USA)*, 106; 10296-10301 (cover image).
- Donahoo ALS and **Richards LJ** (2009) Understanding the mechanisms of callosal development through the use of transgenic mouse models. *Sem. Ped. Neurol*. 16 (3); 127-142
- Piper M, Moldrich R, Lindwall C, Little E, Barry G, Mason S, Sunn N, Kurniawan N, Gronostajski R and **Richards LJ** (2009) Multiple non-cell autonomous defects underlies neocortical callosal dysgenesis in Nfib-deficient mice. *Cereb. Cortex*. 19 (Suppl 1); 11-21.
- Moldrich RX, Gobius I, Pollak T, Zhang J, Ren T, Brown L, Mori S, De Juan Romero C, Britanova O, Tarabykin V, and **Richards LJ**. (2010) Molecular regulation of the developing commissural plate. *J. Comp. Neurol*. 518:3645-61.
- Piper M, Barry G, Hawkins J, Mason S, Lindwall C, Little E, Sarkar A, Smith AG, Moldrich RX, Boyle GM, Tole S, Gronostajski RM, Bailey TL, and **Richards LJ**. (2010) NFIA controls telencephalic progenitor cell differentiation through repression of the Notch effector Hes1. *J Neurosci*. 30:9127-39.
- Moldrich RX, Pannek K, Hoch R, Rubenstein JL, Kurniawan ND, and **Richards LJ**. (2010) Comparative mouse brain tractography of diffusion magnetic resonance imaging. *Neuroimage*. 51:1027-36.
- Chuang N, Mori S, Yamamoto A, Jiang H, Ye X, Xu X, **Richards LJ**, Nathans J, Miller MI, Toga AW, Sidman RL, and Zhang J. (2011) An MRI-based atlas and database of the developing mouse brain. *Neuroimage*. 54:80-9.

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