

Marc Tessier-Lavigne, Curriculum Vitae

Address: Office of the President, Stanford University, 450 Jane Stanford Way, Building 10, Stanford, CA 94305

Born: December 18, 1959; Trenton, Ontario, Canada

Nationality: Canada and USA

Education:
1977-1980 B.Sc., First Class Honors, Physics, McGill University, Montreal
1980-1982 B.A., First Class Honors, Philosophy and Physiology, Oxford University
1983-1987 Ph.D., Department of Physiology, University College London (UCL)

Professional Experience:
1982-83 National Coordinator, Canadian Student Pugwash organization, Ottawa, Canada

Postdoctoral Training:
1987 Postdoctoral research. MRC Developmental Neurobiology Unit, UCL
1987-1991 Postdoctoral research. Center for Neurobiology and Behavior, Columbia University

Professional Appointments:
1991-2001 University of California, San Francisco
Assistant Professor of Anatomy (1991-95)
Associate Professor of Anatomy, with tenure (1995-97)
Professor of Anatomy and of Biochemistry and Biophysics (1997-2001)

1994-2003 Howard Hughes Medical Institute
Assistant Investigator (1994-97)
Investigator (1997-2003)

2001-2005 Stanford University (on leave of absence 2003-05)
Professor of Biological Sciences (2001-05)
Susan B. Ford Professor in the School of Humanities and Sciences (2001-03)
Professor, by courtesy, of Neurology and Neurological Sciences (2002-05)

2003-2011 Genentech, Inc.
Senior Vice President, Research Drug Discovery (2003-08)
Executive Vice President, Research Drug Discovery (2008-09)
Executive Vice President, Research, and Chief Scientific Officer (2009-2011)
- Head of the Genentech Research organization, overseeing ~1,400 scientists focused on disease research and drug discovery for cancer, immune disorders, tissue growth and repair, infectious diseases and neurodegeneration
- Head of a laboratory focused on axon guidance, regeneration, and degeneration

2011-2016 The Rockefeller University
President, Carson Family Professor, and Head of the Laboratory of Brain Development and Repair

Sep 2016- **Stanford University:** President, Bing Presidential Professor, and Professor of

Biology

Honors and Awards:

- 1978-1980 McGill University:
Emily Ross Crawford Scholar, James McConnell Award, Anne Molson Scholar,
University Scholar, Rowlinson Traveling Prize
- 1980 First Class Honors, Physics
- 1980 Anne Molson Gold Medal for highest achievement in Mathematics and Physics
- 1980 Canadian Association of Physicists University Prize Examination: ranked second
among all undergraduates in Physics in Canada
- 1980 WL Putnam Examination in Mathematics: ranked among the top 50 undergraduates
in Mathematics in the US and Canada
- 1980 Rhodes Scholar
- 1982 First Class Honors, Philosophy and Physiology (Oxford)
- 1983 Commonwealth Scholar (Canada) for Ph.D. studies
- 1987 Schaffer Prize for distinction in research in Physiology (University College London)
- 1989 Lucille P. Markey Scholar in Biomedical Science
- 1991 Searle Scholar
- 1991 McKnight Scholar
- 1992 Klingenstein Fellow
- 1992 Basil O'Connor Starter Scholar Research Award, March of Dimes Birth Defects Fndn
- 1994 McKnight Investigator Award
- 1994 Charles Judson Herrick Award in Comparative Neurology, Am. Ass. Anatomists
- 1995 Ameritec Prize for "significant specific accomplishment in basic research toward a
cure for paralysis"
- 1996 Fondation IPSEN Prize for Neuronal Plasticity (with Drs. C. Goodman and F.
Bonhoeffer)
- 1997 Young Investigator Award, Society for Neuroscience, USA
- 1997 Viktor Hamburger Award, International Society for Developmental Neuroscience
- 1998 Wakeman Award for distinction in Neuroscience research (with Dr. C. Goodman)
- 1999 Selected as one of 25 Canadian "Leaders for the 21st Century" by Time Magazine
Canada (Sep. 17, 1999)
- 1999 Fellow of the Royal Society of Canada
- 2001 Fellow of the American Association for the Advancement of Science
- 2001 Fellow of the Royal Society (UK)
- 2001 Susan B. Ford Professorship in the School of Humanities and Sciences (Stanford)
- 2003 Robert Dow Neuroscience Award, Neurological Sciences Institute, OHSU
- 2004 Fellow of the Academy of Medical Sciences (UK)
- 2005 Member, National Academy of Sciences (USA)
- 2006 Honorary Doctorate in Medicine and Surgery, University of Pavia
- 2007 Reeve-Irvine Research Medal for "critical contributions to promoting repair of the
damaged spinal cord" (with Dr. C. Goodman)
- 2007 Ferrier Prize Lecture of the Royal Society (UK)
- 2010 Gill Distinguished Award for "shaping the field and enhancing public understanding of
neuroscience", University of Indiana, Bloomington
- 2010 W. Alden Spencer Award, Columbia University (with Dr. L. Zipursky) "in recognition of
outstanding research contributions in Neural Science".
- 2011 Memorial Sloan-Kettering Medal for Outstanding Contributions to Biomedical Research
- 2011 Honorary doctorate, McGill University
- 2011 Honorary Fellow, New College, Oxford, UK
- 2011 W. Maxwell Cowan Award for Achievement in Developmental Neuroscience
- 2011 Member, National Academy of Medicine (formerly *Institute of Medicine*) (USA)
- 2012 Henry G. Friesen International Prize in Health Research

2013 Fellow, American Academy of Arts and Sciences
2014 Burke Award, The Burke Medical Research Center
2014 Honorary doctorate, University College London
2014 New York / New Jersey CEO Lifetime Achievement Award
2017 Member, American Philosophical Society
2019 Named a "Great Immigrant" by the Carnegie Corporation of New York

Teaching Awards:

1997 UCSF School of Medicine, Award for "Excellence in Small Group/Lab Instruction"
1998 UCSF School of Medicine, Award for "Excellence in Small Group Instruction"
1999 UCSF School of Medicine, Award for "An Outstanding Lecture Series"
2000 UCSF School of Medicine, Award for "Excellence in Lab Instruction"

Editorial Advisory Boards:

1994- *Neuron*
1997- *Molecular and Cellular Neuroscience*
1997- *Trends in Neuroscience*
2000- *Current Opinion in Neurobiology* (co-editor in chief with T. Bonhoeffer, 2000-2010)

Prior: Science, Science Translational Medicine, Development, Genome Biology

Scientific Advisory Boards:

2004- Spinal Muscular Atrophy Foundation, Scientific Advisory Board (Cochair, 2006-)
2014- Board of Scientific Councilors, the Broad Institute
2016- Scientific Advisory Board, Agios Pharmaceuticals

Prior: Ameritech Foundation SAB (1998-2005); Reeve-Irvine Research Center SAB (2000-12); Keck Foundation Distinguished Young Scholars Program SAB (2002-09); Collège de France "Comité d'Orientation Scientifique et Stratégique" (2002-09); Ellison Medical Foundation SAB (2012-14); Sainsbury Wellcome Center for Neural Circuits & Behavior, Governing Council co-Chair (2011-14); Allen Institute of Brain Science SAB, (2002-16; chair 2002-14); Howard Hughes Medical Institute, Medical Advisory Board (2012-16); Juno Therapeutics, Scientific Advisory Board (2016-17)

Scientific Prize Committees:

2009- Member of the Jury, the Lasker Awards
2012- Member of the Jury, the Prix Galien
Prior: Selection Committee, the Shaw Prize in Life Science and Medicine (2006-09)

Boards of Directors, Boards of Governors, Start-ups:

2011- Regeneron Pharmaceuticals, Board of Directors
2015- Denali Therapeutics, Board of Directors (Co-founder, and Chairman 2015-16)

*Prior: Non-profit: Rockefeller Archive Center, Board of Directors (2011-16); New York Genome Center, Board of Directors (2012-16); New York Academy of Sciences, Board of Governors (2014-16); Federal Reserve Bank of New York, Board of Directors (2014-16)
Corporate: Renovis Inc., Co-founder and member, Med. and Sci. Review Board (2000-03); Pfizer Inc, Board of Directors (2011-15); Agios Pharmaceuticals, Board of Directors (2011-16 and Chairman, 2015-16); Juno Therapeutics, Board of Directors (2014-16)*

Publications:

Peer-reviewed papers:

1. Tessier-Lavigne, M., Boothroyd, A., Zuckermann, M.J. and Pink, D.A. (1982) Lipid-mediated interactions between intrinsic molecules in bilayer membranes. **J. Chemical Physics** 76: 4587-4599.
2. Tessier-Lavigne, M., Mobbs, P. and Attwell, D. (1985) Lead and mercury toxicity and the rod light response. **Investigative Ophthalmology and Visual Science** 26: 1117-1123.
3. Attwell, D., Mobbs, P., Tessier-Lavigne, M. and Wilson, M. (1987) Neurotransmitter-induced currents in retinal bipolar cells of the axolotl, Ambystoma mexicanum. **J. Physiology** (London) 387: 125-161.
4. Wilson M., Tessier-Lavigne, M. and Attwell, D. (1987) Noise analysis predicts at least four states for channels closed by glutamate. **Biophysical Journal** 52: 955-960.
5. Tessier-Lavigne, M., Attwell, D., Mobbs, P. and Wilson, M. (1988) Membrane currents in retinal bipolar cells of the axolotl, Ambystoma mexicanum. **J. General Physiology** 91: 49-72.
6. Tessier-Lavigne, M. and Attwell, D. (1988) The effect of photoreceptor coupling and synapse non-linearity on signal:noise ratio in early visual processing. **Proceedings of the Royal Society, B**. 234: 171-197.
7. Tessier-Lavigne, M., Placzek, M., Lumsden, A.G.S., Dodd, J., and Jessell, T.M. (1988) Chemotropic guidance of developing axons in the mammalian central nervous system. **Nature** 336: 775-778.
8. Placzek, M., Tessier-Lavigne, M., Jessell, T., and Dodd, J. (1990) Orientation of commissural axons in vitro in response to a floor plate-derived chemoattractant. **Development** 110: 19-30.
9. Placzek, M., Tessier-Lavigne, M., Yamada, T., Jessell, T., and Dodd, J. (1990) Mesodermal control of neural cell identity: induction of the floor plate by the notochord. **Science** 250:985-988.
10. Serafini, T., Kennedy, T., Galko, M., Mirzayan, C., Jessell, T. and Tessier-Lavigne, M. (1994) The netrins define a family of axon outgrowth-promoting proteins homologous to *C. elegans* UNC-6. **Cell** 78: 409-424.
11. Kennedy, T., Serafini, T., de la Torre, J. and Tessier-Lavigne, M. (1994) Netrins are diffusible chemotropic factors for commissural axons in the embryonic spinal cord. **Cell** 78: 425-436.

12. Fan, C.-M. and Tessier-Lavigne (1994) Patterning of mammalian somites by surface ectoderm and the notochord: Evidence for sclerotome induction by a Hedgehog homolog. **Cell** 79: 1175-1186.
13. Hynes, M., Poulsen, K., Tessier-Lavigne, M. and Rosenthal, A. (1995) Control of neuronal diversity by the floor plate: contact-mediated induction of midbrain dopaminergic neurons. **Cell** 80: 95-101.
14. Messersmith, E.K., Leonardo, E. D., Shatz, C., Tessier-Lavigne, M., Goodman, C.S., and Kolodkin, A.L. (1995) Semaphorin III can function as a selective chemorepellent to pattern sensory projections into the spinal cord. **Neuron** 14: 949-959.
15. Fan, C.M, Porter, J.A., Chiang, C., Chang, D., Beachy, P. and Tessier-Lavigne, M. (1995) Long-range sclerotome induction by Sonic hedgehog: Direct role for the amino terminal autoproteolytic product, and modulation by the cAMP signaling pathway. **Cell** 81: 457-465.
16. Hynes, M., Porter, J. A., Chiang, C., Chang, D., Tessier-Lavigne, M., Beachy, P. and Rosenthal, A. (1995) Induction of midbrain dopaminergic neurons by Sonic hedgehog. **Neuron** 15: 35-44.
17. Colamarino, S.A. and Tessier-Lavigne, M. (1995) The axonal chemoattractant netrin-1 is also a chemorepellent for trochlear motor axons. **Cell** 81: 621-629.
18. Muenke, M., Bonc, L.J., Mitchell, H.F., Hart, I., Walton, K., Hall-Johnson, K., Ippel, E.F., Dietz-Band, Jeanne, Karloy, K., Fan, C-M., Tessier-Lavigne, M. and Patterson, D. (1995) Physical mapping of the holoprosencephaly critical region in 21q22.3, exclusion of *SIM2* as a candidate gene for HPE, and mapping of *SIM2* to a region of chromosome 21 important for Down syndrome. **American Journal of Human Genetics**, 57 (5): 1074-1079.
19. Fan, C.M., Kuwana, E., Bulfone, A., Fletcher, C., Copeland, N.G., Jenkins, N.A., Crews, S., Martinez, S., Puellas, L., Rubenstein, J.L. and Tessier-Lavigne, M. (1996) Expression patterns of two murine homologs of *Drosophila Single-Minded* suggest possible roles in embryonic patterning and in the pathogenesis of Down syndrome. **Molecular & Cellular Neuroscience** 7: 1-16.
20. Pourquié, O., Fan, C.M., Coltey, M., Hirsinger, E., Watanabe, Y., Bréant, C., Francis-West, P., Brickell, P., Tessier-Lavigne, M. and Le Douarin, N.M. (1996) Lateral and axial signals involved in avian somite patterning: A role for BMP4. **Cell** 84: 461-471.
21. Mitchell, K.J., Doyle, J.L., Serafini, T., Kennedy, T., Tessier-Lavigne, M., Goodman, C.S., and Dickson, B.J. (1996). Genetic analysis of Netrin genes in *Drosophila*: Netrins guide CNS commissural axons and peripheral motor axons. **Neuron** 17: 203-215.
22. Keino-Masu, K., Masu, M., Hinck, L., Leonardo, D., Chan, S., Culotti, J. and Tessier-Lavigne, M. (1996). *Deleted in colorectal carcinomas* encodes a netrin receptor. **Cell** 87: 175-185.
23. Shirasaki, R., Mirzayan, C., Tessier-Lavigne, M. and Murakami, F. (1996) Guidance of circumferentially growing axons by netrin-dependent and -independent floor plate chemotropism in the vertebrate brain. **Neuron** 17: 1079-1088.

24. Serafini, T., Colamarino, S., Leonardo, D., Wang, H., Beddington, R., Skarnes, W.C., and Tessier-Lavigne, M. (1996). Netrin-1 is required for commissural axon guidance in the developing vertebrate nervous system. **Cell** 87: 1001-1014.
25. Ebens, A., Brose, K., Leonardo, E.D., Hanson, M.G., Bladt, F., Birchmeier, C., Barres, B. and Tessier-Lavigne, M. (1996). Hepatocyte growth factor/scatter factor is an axonal chemoattractant and a neurotrophic factor for spinal motor neurons. **Neuron** 17: 1157-1172.
26. Mastick, G.S., Fan, C.M., Tessier-Lavigne, M., Serbedzija, G.N., McMahon, A.P. and Easter, Jr., S.S. (1996) Early deletion of neurones in Wnt-1 $-/-$ mutant mice: Evaluation by morphological and molecular markers. **Journal of Comparative Neurology** 374: 246-258.
27. Probst, M.R., Fan, C.M., Tessier-Lavigne, M. and Hankinson, O. (1997). Two murine homologs of the Drosophila single-minded protein that interact with the mouse aryl hydrocarbon receptor nuclear translocator protein. **Journal of Biological Chemistry** 272: 4451-4457.
28. Fazeli, A., Dickinson S. L., Hermiston, M., Tighe, R., Steen, R., Small, C., Stoeckli, E., Keino-Masu, K., Masu, M., Rayburn, H., Simons, J., Bronson, R., Gordon, J., Tessier-Lavigne, M. and Weinberg, R.A. (1997) Phenotype of mice lacking functional *Deleted in Colorectal Cancer (DCC)* gene. **Nature** 386: 796-804.
29. Leonardo, E. ., Hinck, L., Masu, M., Keino-Masu, K., Ackerman, S.L. and Tessier-Lavigne, M. (1997) Vertebrate homologues of *C. elegans* UNC-5 are candidate netrin receptors. **Nature** 386: 833-838.
30. He, Z. and Tessier-Lavigne, M. (1997) Neuropilin is a receptor for the axonal chemorepellent Semaphorin III. **Cell** 90: 739-751.
31. Chen, H., Chédotal, A., He, Z., Goodman, C.S. and Tessier-Lavigne, M. (1997) Neuropilin-2, a novel member of the neuropilin family, is a high affinity receptor for the semaphorins sema E and sema IV, but not sema III. **Neuron** 19: 547-559.
32. Fan, C.M., Lee, C.S. and Tessier-Lavigne, M. (1997) A role for WNT proteins in induction of dermomyotome. **Developmental Biology** 191:160-5.
33. Deiner, M.S., Kennedy, T.E., Fazeli, A., Serafini, T., Tessier-Lavigne, M. and Sretavan, D.W. (1997) Netrin-1 and DCC mediate axon guidance locally at the optic disc: Loss of function leads to optic nerve hypoplasia. **Neuron** 19: 575-589.
34. Métin, C., Deléglise, D., Serafini, T., Kennedy, T. E. and Tessier-Lavigne, M. (1997) A role for netrin-1 in the guidance of cortical efferents. **Development** 124: 5063-5074.
35. de la Torre, J.R., Höpker, V.H., Ming, G-L., Poo, M-M., Tessier-Lavigne, M., Hemmati-Brivanlou, A. and Holt, C.E. (1997) Turning of retinal growth cones in a netrin-1 gradient mediated by the netrin receptor DCC. **Neuron** 19: 1211-1224.
36. Ming, G-L., Song, H-J., Berninger, B., Holt, C.E., Tessier-Lavigne, M. and Poo, M-M. (1997) cAMP-dependent growth cone guidance by netrin-1. **Neuron** 19: 1225-1235.

37. Kidd, T., Brose, K., Mitchell, K.J., Fetter, R.D., Tessier-Lavigne, M., Goodman, C.S. and Tear, G. (1998) Roundabout controls axon crossing of the CNS midline and defines a novel subfamily of evolutionarily conserved guidance receptors. **Cell** 92: 205-215.
38. Song, H.J., Ming, G.L., He, Z., Lehmann, M., McKerracher, L., Tessier-Lavigne, M., and Poo, M.-M. (1998) Conversion of neuronal growth cone responses from repulsion to attraction by cyclic nucleotides. **Science**, 281(5382):1515-8.
39. Chedotal, A., Del Rio, J.A., Ruiz, M., He, Z., Borrel, V., de Castro, F., Ezan, F., Goodman, C.S., Tessier-Lavigne, M., Sotelo, C. and Soriano, E. (1998) Semaphorins III and IV repel hippocampal axons via two distinct receptors. **Development** 125:4313-23.
40. Winberg, M.L.; Noordermeer, J.N.; Tamagnone, L; Comoglio, P.M.; Spriggs, M.K., Tessier-Lavigne, M. and Goodman C.S. (1998) Plexin A is a neuronal semaphorin receptor that controls axon guidance. **Cell** 95:903-16.
41. Chen, H., He, Z., Bagri, A. and Tessier-Lavigne, M. (1998) Semaphorin-neuropilin interactions underlying sympathetic axon responses to class III semaphorins. **Neuron** 21:1283-90.
42. Ba-Charvet, K., Brose, K., Marillat, V., Kidd, T., Goodman, C.S., Tessier-Lavigne, M., Sotelo, C. and Chédotal, A. (1999). Slit-2-mediated chemorepulsion and collapse of developing forebrain axons. **Neuron** 22:463-473.
43. Brose, K., Bland, K.S., Wang, K.H., Arnott, D., Henzel, W., Goodman, C.S., Tessier-Lavigne, M. and Kidd, T. (1999) Slit Proteins bind Robo Receptors and have an Evolutionarily Conserved Role in Repulsive Axon Guidance. **Cell** 96:795-806.
44. Wang, K.H., Brose, K., Arnott, D., Kidd, T., Goodman, C.S., Henzel, W. and Tessier-Lavigne, M. (1999) Biochemical Purification of a Mammalian Slit Protein as a Positive Regulator of Sensory Axon Elongation and Branching. **Cell** 96:771-784.
45. Bloch-Gallego, E., Ezan, F., Tessier-Lavigne, M. and Sotelo, C. (1999) The floor plate and netrin-1 are involved in the migration and survival of inferior olivary neurons. **J. Neuroscience**, 19:4407-4420.
46. Wang, H., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Tessier-Lavigne, M. (1999) Netrin-3, a mouse homologue of human NTN2L, is highly expressed in sensory ganglia and shows differential binding to netrin receptors. **J. Neuroscience**, 19:4938-47.
47. Ming, G.L., Song, H.J., Berninger, B., Naoyuki, I., Tessier-Lavigne, M., and Poo, M.M. (1999) Phospholipase C-g and phosphoinositide 3-kinase mediate cytoplasmic signaling in nerve growth cone guidance. **Neuron**, 23:139-148 .
48. Hong, K., Hinck, L., Nishiyama, M., Poo, M.-m., Tessier-Lavigne, M. and Stein, E. (1999). A ligand-gated association between cytoplasmic domains of UNC5 and DCC family receptors converts netrin-1-induced growth cone attraction to repulsion. **Cell**, 97:927-941.
49. O'Connor, R. and Tessier-Lavigne, M. (1999). Identification of a Maxillary-Derived Chemoattractant for Developing Trigeminal Sensory Axons. **Neuron**, 24:165-178.

50. Hopker, V.H., Shewan, D., Tessier-Lavigne, M., Poo, M.M., and Holt, C. (1999). Growth-Cone attraction to netrin-1 is converted to repulsion by laminin-1. **Nature** 401:69-73.
51. Tamagnone L., Artigiani S., Chen H., He Z., Ming G., Song H., Chedotal A., Winberg M., Goodman C., Poo M., Tessier-Lavigne M. and Comoglio P. (1999). Plexins are a Large Family of Receptors for Transmembrane, Secreted, and GPI-Anchored Semaphorins in Vertebrates. **Cell**, 99: 71-80.
52. Wang, H. and Tessier-Lavigne, M. (1999). En passant neurotrophic action of an intermediate axonal target in the developing mammalian central nervous system. **Nature**, 401:765-769.
53. Yee, K.T., Simon, H.H., Tessier-Lavigne, M. and O'Leary, D.D.M. (1999) Extension of Long Leading Processes and Neuronal Migration in the Mammalian Brain Directed by the Chemoattractant Netrin-1. **Neuron** 24:607-622.
54. Hong, K., Nishiyama, M., Henley, J., Tessier-Lavigne, M., Poo, M.-M (2000) Calcium signaling in the guidance of nerve growth by netrin-1. **Nature** 403, 93-98
55. Chen, H., Bagri, A., Zupicich, J.A., Zou, Y., Stoeckli, E., Pleasure, S.J., Lowenstein, D.H., Skarnes, W.C., Chédotal, A. and Tessier-Lavigne, M. (2000). Neuropilin-2 regulates the development of select cranial and sensory nerves and hippocampal mossy fiber projections. **Neuron**, 25:43-56.
56. Gallo, M. and Tessier-Lavigne, M. (2000) Biochemical characterization of netrin-synergizing activity. **Journal of Biological Chemistry** 275:7832-8.
57. Braisted, J.E., Catalano, S.M., Stimac, R., Kennedy, T.E., Tessier-Lavigne, M., Shatz, C.J. and O'Leary, D.D. (2000) Netrin-1 promotes thalamic axon growth and is required for proper development of the thalamocortical projection. **Journal of Neuroscience** 20:5792-801.
58. Ringstedt, T., Braisted, J.E., Brose, K., Kidd, T., Goodman, C., Tessier-Lavigne, M., and O'Leary, D.D. (2000) Slit inhibition of retinal axon growth and its role in retinal axon pathfinding and innervation patterns in the diencephalon. **Journal of Neuroscience** 20:4983-91.
59. Erskine, L., Williams, S.E., Brose, K., Kidd, T., Rachel, R.A., Goodman, C.S., Tessier-Lavigne, M., and Mason, C.A. (2000). Retinal ganglion cell axon guidance in the mouse optic chiasm: expression and function of robo and slits. **Journal of Neuroscience** 20:4975-82.
60. Zou, Y., Stoeckli, E., Chen, H. and Tessier-Lavigne, M. (2000) Squeezing axons out of the gray matter: A role for Slit and Semaphorin proteins from midline and ventral spinal cord. **Cell**, 102:363-375.
61. Gallo, M. and Tessier-Lavigne, M. (2000). Function of an axonal attractant modulated by metalloprotease activity. **Science**, 289: 1365-1367.
62. Barallobre, M. J., Del Rio, J. A., Alcantara, S., Borrell, V., Aguado, F., Ruiz, M., Carmona, M. A., Martin, M., Fabre, M., Yuste, R., Tessier-Lavigne, M. and Soriano, E. (2000). Aberrant

development of hippocampal circuits and altered neural activity in netrin 1-deficient mice. **Development** 127:22.

63. Leighton, P.A., Mitchell, K.J., Goodrich, L.V., Lu, X., Pinson, K., Scherz, P., Skarnes, W.C., and Tessier-Lavigne, M. (2001) Defining brain wiring patterns and mechanisms through gene trapping in mice. **Nature**, 410: 174-179.
64. Stein, E. and Tessier-Lavigne, M. (2001) Hierarchical organization of guidance receptors: Slit silences netrin attraction through a Robo/DCC receptor complex. **Science**, 291: 1928-1938.
65. Stein, E., Zou, Y, Poo, M-M and Tessier-Lavigne, M. (2001) Binding of DCC by Netrin-1 to mediate axon guidance independent of adenosine A2B receptor activation. **Science**, 291: 1976-1982.
66. Mitchell, K., Pinson, K.I., Kelly, O.G., Brennan, J., Zupicich, J., Scherz, P., Leighton, P.A., Goodrich, L.V., Lu, X., Avery, B.J., Tate, P., dill, K., Pangilinan, E., Wakenight, P., Tessier-Lavigne, M. and Skarnes, W.C. (2001) Functional analysis of secreted and transmembrane proteins in mouse development. **Nature Genetics**, 28, 241-249.
67. Ba-Charvet KT; Brose K; Ma L; Wang KH; Marillat V; Sotelo C; Tessier-Lavigne M; Chedotal A. (2001) Diversity and specificity of actions of Slit2 proteolytic fragments in axon guidance. **Journal of Neuroscience**, 21:4281-9.
68. Ming G; Henley J; Tessier-Lavigne M; Song H; Poo M. (2001) Electrical activity modulates growth cone guidance by diffusible factors. **Neuron** 29, 441-52.
69. Nguyen-Ba-Charvet, K.T., Brose, K.; Marillat, V., Sotelo, C., Tessier-Lavigne, M., Chedotal, A. (2001) Sensory axon response to substrate-bound Slit2 is modulated by laminin and cyclic GMP. **Molecular and Cellular Neurosciences** 17, 1048-58.
70. Marin, O., Yaron, A., Bagri, A., Tessier-Lavigne, M., Rubenstein, J.L. (2001) Sorting of striatal and cortical interneurons regulated by semaphorin-neuropilin interactions. **Science** 293, 872-5.
71. Hao, J.C., Yu, T.W., Fujisawa, K., Culotti, J.G., Gengyo-Ando, K., Mitani, S., Moulder, G., Barstead, R., Tessier-Lavigne, M., Bargmann, C.I. (2001) C. elegans slit acts in midline, dorsal-ventral, and anterior-posterior guidance via the SAX-3/Robo receptor. **Neuron** 32, 25-38.
72. Cheng, H.J., Bagri, A., Yaron, A., Stein, E., Pleasure, S.J., Tessier-Lavigne, M. (2001) Plexin-A3 mediates semaphorin signaling and regulates the development of hippocampal axonal projections. **Neuron** 32, 249-63.
73. Whitford, K.L., Marillat, V., Stein, E., Goodman, C.S., Tessier-Lavigne, M., Chédotal, A., and Ghosh, A. (2002). Regulation of cortical dendrite development by Slit-Robo interactions. **Neuron** 33, 47-61.
74. Plump, A.S., Erskine, L., Sabatier, C., Brose, K., Epstein, C.J., Goodman, C.S., Mason, C.A. and Tessier-Lavigne, M. (2002) Slit1 and Slit2 cooperate to prevent premature midline crossing of retinal axons in the mouse visual system. **Neuron** 33, 291-232.

75. Bagri, A., Marin, O., Plump, A., Mak, J., Pleasure, S.J., Rubenstein, J.L.R., and Tessier-Lavigne, M. (2002). Slit proteins prevent midline crossing and determine the dorsoventral position of major axonal pathways in the mammalian forebrain. **Neuron** 33, 233-248.
76. Huang, X., Cheng, H.J., Tessier-Lavigne, M. and Jin, Y. (2002). MAX-1, a Novel PH/MyTH4/FERM domain cytoplasmic protein implicated in netrin-mediated axon repulsion. **Neuron** 34:563-576.
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