



Susan K. McConnell

Susan B. Ford Professor

Biology

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Professor, Biology
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Co-Chair, Stanford Long-Range Planning Area Steering Group on Our Community, (2017-2017)
- Co-Chair, Study on Undergraduate Education at Stanford (SUES), (2010-2012)

HONORS AND AWARDS

- Clare Booth Luce Professor, Henry Luce Foundation (1989-1994)
- Searle Scholar, Searle Trust (1989)
- Pew Scholar, Pew Charitable Trust (1989)
- Sloan Research Fellow, Alfred P. Sloan Foundation (1991)
- NSF Presidential Young Investigator, National Science Foundation (1991)
- NSF Presidential Faculty Fellow, National Science Foundation (1993)
- McKnight Scholar, McKnight Foundation (1993)
- Terman Fellow, Stanford University (1994)
- SFN Young Investigator Award, Society for Neuroscience (1995)
- McKnight Investigator, McKnight Foundation (1997)
- Member, American Academy of Arts and Sciences (2006)
- Member, National Academy of Sciences (2011)
- HHMI Professor, Howard Hughes Medical Institute (2014-)

PROFESSIONAL EDUCATION

- A.B., Harvard and Radcliffe Colleges , Biology (1980)
- Ph.D., Harvard University , Neurobiology (1987)

LINKS

- Photography Website: <http://www.susankmcconnell.com>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Susan McConnell is the Susan B. Ford Professor in the Department of Biological Sciences at Stanford University. She joined the Stanford faculty in 1989. McConnell has studied the development of the cerebral cortex, the brain region that controls our highest cognitive and perceptual functions. The nerve cells of the cortex are generated during fetal life; once these cells are born, they migrate over long distances before forming connections with other nerve cells. McConnell has explored the mechanisms by which young neurons acquire an identity and establish specific connections. Her studies provide insights into the process of how the brain wires itself up during normal development. The McConnell lab is now closed and is no longer accepting students or postdoctoral fellows.

Teaching

COURSES

2021-22

- Biology Senior Reflection: BIO 196A (Aut)
- Biology Senior Reflection: BIO 196B (Win)
- Biology Senior Reflection: BIO 196C (Spr)
- Conservation Photography: BIO 7N (Win)

2020-21

- Biology Senior Reflection: BIO 196A (Aut)
- Biology Senior Reflection: BIO 196B (Win)
- Biology Senior Reflection: BIO 196C (Spr)
- Conservation Photography: BIO 7N (Win)
- Developmental Neurobiology: BIO 158, BIO 258 (Aut)

2019-20

- Conservation Photography: BIO 53 (Spr)

2018-19

- Biology Senior Reflection: BIO 196A (Aut)
- Biology Senior Reflection: BIO 196B (Win)
- Biology Senior Reflection: BIO 196C (Spr)
- Developmental Neurobiology: BIO 158, BIO 258 (Aut)
- Introduction to Conservation Photography: BIO 7N (Win)

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)
- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Transcriptional repression by FEZF2 restricts alternative identities of cortical projection neurons.** *Cell reports*
Tsyporin, J., Tastad, D., Ma, X., Nehme, A., Finn, T., Huebner, L., Liu, G., Gallardo, D., Makhamreh, A., Roberts, J. M., Katzman, S., Sestan, N., McConnell, et al
2021; 35 (12): 109269
- **Transcription factor expression defines subclasses of developing projection neurons highly similar to single-cell RNA-seq subtypes.** *Proceedings of the National Academy of Sciences of the United States of America*
Heavner, W. E., Ji, S. n., Notwell, J. H., Dyer, E. S., Tseng, A. M., Birgmeier, J. n., Yoo, B. n., Bejerano, G. n., McConnell, S. K.
2020
- **Compensatory Actions of Ldb Adaptor Proteins During Corticospinal Motor Neuron Differentiation** *CEREBRAL CORTEX*
Leone, D. P., Panagiotakos, G., Heavner, W. E., Joshi, P., Zhao, Y., Westphal, H., McConnell, S. K.
2017; 27 (2): 1686-1699
- **TBR1 regulates autism risk genes in the developing neocortex.** *Genome research*
Notwell, J. H., Heavner, W. E., Darbandi, S. F., Katzman, S., McKenna, W. L., Ortiz-Londono, C. F., Tastad, D., Eckler, M. J., Rubenstein, J. L., McConnell, S. K., Chen, B., Bejerano, G.
2016; 26 (8): 1013-1022
- **Satb2 Regulates the Differentiation of Both Callosal and Subcerebral Projection Neurons in the Developing Cerebral Cortex.** *Cerebral cortex*
Leone, D. P., Heavner, W. E., Ferenczi, E. A., Dobрева, G., Huguenard, J. R., Grosschedl, R., McConnell, S. K.
2015; 25 (10): 3406-3419
- **Evidence for topographic guidance of dopaminergic axons by differential Netrin-1 expression in the striatum** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Li, J., Duarte, T., Kocabas, A., Works, M., McConnell, S. K., Hynes, M. A.
2014; 61: 85-96
- **A network of genetic repression and derepression specifies projection fates in the developing neocortex** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Srinivasan, K., Leone, D. P., Bateson, R. K., Dobрева, G., Kohwi, Y., Kohwi-Shigematsu, T., Grosschedl, R., McConnell, S. K.
2012; 109 (47): 19071-19078
- **Primary cilia and Gli3 activity regulate cerebral cortical size** *DEVELOPMENTAL NEUROBIOLOGY*
Wilson, S. L., Wilson, J. P., Wang, C., Wang, B., McConnell, S. K.
2012; 72 (9): 1196-1212
- **Sonic Hedgehog Expression in Corticofugal Projection Neurons Directs Cortical Microcircuit Formation** *NEURON*
Harwell, C. C., Parker, P. R., Gee, S. M., Okada, A., McConnell, S. K., Kreitzer, A. C., Kriegstein, A. R.
2012; 73 (6): 1116-1126
- **Fezf1 and Fezf2 Are Required for Olfactory Development and Sensory Neuron Identity** *JOURNAL OF COMPARATIVE NEUROLOGY*
Eckler, M. J., McKenna, W. L., Taghvaei, S., McConnell, S. K., Chen, B.
2011; 519 (10): 1829-1846
- **Endocytosis Regulates Cell Soma Translocation and the Distribution of Adhesion Proteins in Migrating Neurons** *PLOS ONE*
Shieh, J. C., Schaar, B. T., Srinivasan, K., Brodsky, F. M., McConnell, S. K.
2011; 6 (3)
- **Characterization of axon guidance cue sensitivity of human embryonic stem cell-derived dopaminergic neurons** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Cord, B. J., Li, J., Works, M., McConnell, S. K., Palmer, T., Hynes, M. A.
2010; 45 (4): 324-334
- **The Rho GTPase Rac1 is Required for Proliferation and Survival of Progenitors in the Developing Forebrain** *DEVELOPMENTAL NEUROBIOLOGY*
Leone, D. P., Srinivasan, K., Brakebusch, C., McConnell, S. K.
2010; 70 (9): 659-678

- **A central role for the small GTPase Rac1 in hippocampal plasticity and spatial learning and memory** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Haditsch, U., Leone, D. P., Farinelli, M., Chrostek-Grashoff, A., Brakebusch, C., Mansuy, I. M., McConnell, S. K., Palmer, T. D.
2009; 41 (4): 409-419
- **The Fezf2-Ctip2 genetic pathway regulates the fate choice of subcortical projection neurons in the developing cerebral cortex** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Chen, B., Wang, S. S., Hattox, A. M., Rayburn, H., Nelson, S. B., McConnell, S. K.
2008; 105 (32): 11382-11387
- **MALS-3 regulates polarity and early neurogenesis in the developing cerebral cortex** *DEVELOPMENT*
Srinivasan, K., Roosa, J., Olsen, O., Lee, S., Bredt, D. S., McConnell, S. K.
2008; 135 (10): 1781-1790
- **Satb2 regulates callosal projection neuron identity in the developing cerebral cortex** *NEURON*
Alcamo, E. A., Chirivella, L., Dautzenberg, M., Dobрева, G., Farinas, I., Grosschedl, R., McConnell, S. K.
2008; 57 (3): 364-377
- **The determination of projection neuron identity in the developing cerebral cortex** *CURRENT OPINION IN NEUROBIOLOGY*
Leone, D. P., Srinivasan, K., Chen, B., Alcamo, E., McConnell, S. K.
2008; 18 (1): 28-35
- **Ongoing sonic hedgehog signaling is required for dorsal midline formation in the developing forebrain** *DEVELOPMENTAL NEUROBIOLOGY*
Hayhurst, M., Gore, B. B., Tessier-Lavigne, M., McConnell, S. K.
2008; 68 (1): 83-100
- **Mutations in the BMP pathway in mice support the existence of two molecular classes of holoprosencephaly** *DEVELOPMENT*
Fernandes, M., Gutin, G., Alcorn, H., McConnell, S. K., Hebert, J. M.
2007; 134 (21): 3789-3794
- **Boc is a receptor for sonic hedgehog in the guidance of commissural axons** *NATURE*
Okada, A., Charron, F., Morin, S., Shin, D. S., Wong, K., Fabre, P. J., Tessier-Lavigne, M., McConnell, S. K.
2006; 444 (7117): 369-373
- **FGF signalling generates ventral telencephalic cells independently of SHH** *DEVELOPMENT*
Gutin, G., Fernandes, M., Palazzolo, L., Paek, H., Yu, K., Ornitz, D. M., McConnell, S. K., Hebert, J. M.
2006; 133 (15): 2937-2946
- **Dose-dependent functions of Fgf8 in regulating telencephalic patterning centers** *DEVELOPMENT*
Storm, E. E., Garel, S., Borello, U., Hebert, J. M., Martinez, S., McConnell, S. K., Martin, G. R., Rubenstein, J. L.
2006; 133 (9): 1831-1844
- **Visualization of embryonic neural stem cells using Hes promoters in transgenic mice** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Ohtsuka, T., Imayoshi, I., Shimojo, H., Nishi, E., Kageyama, R., McConnell, S. K.
2006; 31 (1): 109-122
- **Fgf8 expression defines a morphogenetic center required for olfactory neurogenesis and nasal cavity development in the mouse** *DEVELOPMENT*
Kawauchi, S., Shou, J. Y., Santos, R., Hebert, J. M., McConnell, S. K., Mason, I., Calof, A. L.
2005; 132 (23): 5211-5223
- **The genetics of cerebral cortex development in the mouse**
McConnell, S. K.
NATURE PUBLISHING GROUP.2005: S9
- **Fezl regulates the differentiation and axon targeting of layer 5 subcortical projection neurons in cerebral cortex** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Chen, B., Schaevitz, L. R., McConnell, S. K.
2005; 102 (47): 17184-17189
- **Cytoskeletal coordination during neuronal migration** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

- Schaar, B. T., McConnell, S. K.
2005; 102 (38): 13652-13657
- **Gene targeting using a promoterless gene trap vector ("targeted trapping") is an efficient method to mutate a large fraction of genes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Friedel, R. H., Plump, A., Lu, X. W., Spilker, K., Jolicoeur, C., Wong, K., Venkatesh, T. R., Yaron, A., Hynes, M., Chen, B., Okada, A., McConnell, S. K., Rayburn, et al
2005; 102 (37): 13188-13193
 - **Genomic characterisation of a Fgf-regulated gradient-based neocortical protomap** *DEVELOPMENT*
Sansom, S. N., Hebert, J. M., Thammongkol, U., Smith, J., Nisbet, G., Surani, M. A., McConnell, S. K., Livesey, F. J.
2005; 132 (17): 3947-3961
 - **Doublecortin microtubule affinity is regulated by a balance of kinase and phosphatase activity at the leading edge of migrating neurons** *NEURON*
Schaar, B. T., Kinoshita, K., McConnell, S. K.
2004; 41 (2): 203-213
 - **BMP ligands act redundantly to pattern the dorsal telencephalic midline** *GENESIS*
Hebert, J. M., Hayhurst, M., Marks, M. E., Kulesa, H., HOGAN, B. L., McConnell, S. K.
2003; 35 (4): 214-219
 - **Mouse models of holoprosencephaly** *CURRENT OPINION IN NEUROLOGY*
Hayhurst, M., McConnell, S. K.
2003; 16 (2): 135-141
 - **FGF signaling through FGFR1 is required for olfactory bulb morphogenesis** *DEVELOPMENT*
Hebert, J. M., Lin, M., Partanen, J., Rossant, J., McConnell, S. K.
2003; 130 (6): 1101-1111
 - **Neurotrophin-3 is required for appropriate establishment of thalamocortical connections** *NEURON*
Ma, L., Harada, T., Harada, C., Romero, M., Hebert, J. M., McConnell, S. K., Parada, L. F.
2002; 36 (4): 623-634
 - **BMP signaling is required locally to pattern the dorsal telencephalic midline** *NEURON*
Hebert, J. M., Mishina, Y., McConnell, S. K.
2002; 35 (6): 1029-1041
 - **FGFR1 is required for the development of the auditory sensory epithelium** *NEURON*
Pirvola, U., Ylikoski, J., Trokovic, R., Hebert, J. M., McConnell, S. K., Partanen, J.
2002; 35 (4): 671-680
 - **Distinct origins of neocortical projection neurons and interneurons in vivo** *CEREBRAL CORTEX*
Anderson, S. A., Kaznowski, C. E., Horn, C., Rubenstein, J. L., McConnell, S. K.
2002; 12 (7): 702-709
 - **Telencephalon-specific Rb knockouts reveal enhanced neurogenesis, survival and abnormal cortical development** *EMBO JOURNAL*
Ferguson, K. L., Vanderluit, J. L., Hebert, J. M., McIntosh, W. C., Tibbo, E., MacLaurin, J. G., Park, D. S., Wallace, V. A., Vooijs, M., McConnell, S. K., Slack, R. S.
2002; 21 (13): 3337-3346
 - **Regulated nuclear trafficking of the homeodomain protein Otx1 in cortical neurons** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Zhang, Y. A., Okada, A., Lew, C. H., McConnell, S. K.
2002; 19 (3): 430-446
 - **NudC associates with Lis1 and the dynein motor at the leading pole of neurons** *JOURNAL OF NEUROSCIENCE*
Aumais, J. P., Tunstead, J. R., McNeil, R. S., Schaar, B. T., McConnell, S. K., Lin, S. H., Clark, G. D., Yu-Lee, L. Y.
2001; 21 (24)
 - **Doublecortin interacts with mu subunits of clathrin adaptor complexes in the developing nervous system** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Friocourt, G., Chafey, P., Billuart, P., Koulakoff, A., Vine, M. C., Schaar, B. T., McConnell, S. K., Francis, F., Chelly, J.
2001; 18 (3): 307-319

- **Targeted mutagenesis of *Lis1* disrupts cortical development and *LIS1* homodimerization** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Cahana, A., Escamez, T., Nowakowski, R. S., Hayes, N. L., Giacobini, M., von Holst, A., Shmueli, O., Sapir, T., McConnell, S. K., Wurst, W., Martinez, S., Reiner, O.
2001; 98 (11): 6429-6434
- **Temporally and spatially regulated expression of a candidate G-protein-coupled receptor during cerebral cortical development** *JOURNAL OF NEUROBIOLOGY*
Chenn, A., Levin, M. E., McConnell, S. K.
2001; 46 (3): 167-177
- **Developmental expression pattern of the *cdo* gene** *DEVELOPMENTAL DYNAMICS*
Mulieri, P. J., Okada, A., Sassoon, D. A., McConnell, S. K., Krauss, R. S.
2000; 219 (1): 40-49
- **Progressive restriction in fate potential by neural progenitors during cerebral cortical development** *DEVELOPMENT*
Desai, A. R., McConnell, S. K.
2000; 127 (13): 2863-2872
- **Targeting of *cre* to the *Foxg1* (BF-1) locus mediates loxP recombination in the telencephalon and other developing head structures** *DEVELOPMENTAL BIOLOGY*
Hebert, J. M., McConnell, S. K.
2000; 222 (2): 296-306
- **Cortical degeneration in the absence of neurotrophin signaling: Dendritic retraction and neuronal loss after removal of the receptor *TrkB*** *NEURON*
Xu, B. J., Zang, K. L., Ruff, N. L., Zhang, Y. A., McConnell, S. K., Stryker, M. P., Reichardt, L. F.
2000; 26 (1): 233-245
- **Cortical neurons require *Otx1* for the refinement of exuberant axonal projections to subcortical targets** *NEURON*
Weimann, J. M., Zhang, Y. A., Levin, M. E., Devine, W. P., Brulet, P., McConnell, S. K.
1999; 24 (4): 819-831
- **Regional differences in the developing cerebral cortex revealed by ephrin-A5 expression** *CEREBRAL CORTEX*
Mackarehtschian, K., Lau, C. K., Caras, I., McConnell, S. K.
1999; 9 (6): 601-610
- **Doublecortin is a developmentally regulated, microtubule-associated protein expressed in migrating and differentiating neurons** *NEURON*
Francis, F., Koulakoff, A., Boucher, D., Chafey, P., Schaar, B., Vinet, M. C., Friocourt, G., McDonnell, N., Reiner, O., Kahn, A., McConnell, S. K., Berwald-Netter, Y., Denoulet, et al
1999; 23 (2): 247-256
- **Imaging cells in the developing nervous system with retrovirus expressing modified green fluorescent protein** *EXPERIMENTAL NEUROLOGY*
Okada, A., Lansford, R., Weimann, J. M., Fraser, S. E., McConnell, S. E.
1999; 156 (2): 394-406
- **Intrinsic polarity of mammalian neuroepithelial cells** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Chenn, A., Zhang, Y. A., Chang, B. T., McConnell, S. K.
1998; 11 (4): 183-193
- **Determination of the migratory capacity of embryonic cortical cells lacking the transcription factor *Pax-6*** *DEVELOPMENT*
Caric, D., Gooday, D., HILL, R. E., McConnell, S. K., Price, D. J.
1997; 124 (24): 5087-5096
- **Postmitotic neurons migrate tangentially in the cortical ventricular zone** *DEVELOPMENT*
OROURKE, N. A., Chenn, A., McConnell, S. K.
1997; 124 (5): 997-1005
- **Induction of deep layer cortical neurons in vitro** *DEVELOPMENT*
BOHNER, A. P., Akers, R. M., McConnell, S. K.
1997; 124 (4): 915-923

- **Restriction of late cerebral cortical progenitors to an upper-layer fate** *NEURON*
Frantz, G. D., McConnell, S. K.
1996; 17 (1): 55-61
- **STRATEGIES FOR THE GENERATION OF NEURONAL DIVERSITY IN THE DEVELOPING CENTRAL-NERVOUS-SYSTEM** *JOURNAL OF NEUROSCIENCE*
McConnell, S. K.
1995; 15 (11): 6987-6998
- **CONSTRUCTING THE CEREBRAL-CORTEX - NEUROGENESIS AND FATE DETERMINATION** *NEURON*
McConnell, S. K.
1995; 15 (4): 761-768
- **CLEAVAGE ORIENTATION AND THE ASYMMETRIC INHERITANCE OF NOTCH1 IMMUNOREACTIVITY IN MAMMALIAN NEUROGENESIS** *CELL*
Chenn, A., McConnell, S. K.
1995; 82 (4): 631-641
- **TANGENTIAL MIGRATION OF NEURONS IN THE DEVELOPING CEREBRAL-CORTEX** *DEVELOPMENT*
OROURKE, N. A., Sullivan, D. P., Kaznowski, C. E., Jacobs, A. A., McConnell, S. K.
1995; 121 (7): 2165-2176
- **Plasticity and commitment in the developing cerebral cortex** *2nd Stanford International Neuroscience Symposium*
McConnell, S. K.
ELSEVIER SCIENCE BV.1995: 129-143
- **OTX1 AND OTX2 DEFINE LAYERS AND REGIONS IN DEVELOPING CEREBRAL-CORTEX AND CEREBELLUM** *JOURNAL OF NEUROSCIENCE*
Frantz, G. D., Weimann, J. M., Levin, M. E., McConnell, S. K.
1994; 14 (10): 5725-5740
- **DIFFERENTIAL EXPRESSION OF SYNAPTIC VESICLE PROTEIN-2 (SV2) ISOFORMS** *JOURNAL OF NEUROSCIENCE*
Bajjalieh, S. M., Frantz, G. D., Weimann, J. M., McConnell, S. K., Scheller, R. H.
1994; 14 (9): 5223-5235
- **SUBPLATE PIONEERS AND THE FORMATION OF DESCENDING CONNECTIONS FROM CEREBRAL-CORTEX** *JOURNAL OF NEUROSCIENCE*
McConnell, S. K., Ghosh, A., Shatz, C. J.
1994; 14 (4): 1892-1907
- **REGULATION OF THE POU DOMAIN GENE SCIP DURING CEREBRAL CORTICAL DEVELOPMENT** *JOURNAL OF NEUROSCIENCE*
Frantz, G. D., BOHNER, A. P., Akers, R. M., McConnell, S. K.
1994; 14 (2): 472-485
- **CELL-MIGRATION IN CULTURED CEREBRAL CORTICAL SLICES** *DEVELOPMENTAL BIOLOGY*
Roberts, J. S., OROURKE, N. A., McConnell, S. K.
1993; 155 (2): 396-408
- **DIVERSE MIGRATORY PATHWAYS IN THE DEVELOPING CEREBRAL-CORTEX** *SCIENCE*
OROURKE, N. A., Dailey, M. E., Smith, S. J., McConnell, S. K.
1992; 258 (5080): 299-302
- **The control of neuronal identity in the developing cerebral cortex.** *Current opinion in neurobiology*
McConnell, S. K.
1992; 2 (1): 23-27
- **PERSPECTIVES ON EARLY BRAIN-DEVELOPMENT AND THE EPILEPSIES** *WORKSHOP ON MOLECULAR NEUROBIOLOGY OF EPILEPSY*
McConnell, S. K., Macdonald, R. L., MOURITZENDAM, A., Mello, L., Tobin, A. J., Swann, J. W., Engel, J., Buzsaki, G., Tempel, B. L.
ELSEVIER SCIENCE BV.1992: 183-191
- **CELL-CYCLE DEPENDENCE OF LAMINAR DETERMINATION IN DEVELOPING NEOCORTEX** *SCIENCE*

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- McConnell, S. K., Kaznowski, C. E.
1991; 254 (5029): 282-285
- **MORPHOLOGY OF PIONEER AND FOLLOWER GROWTH CONES IN THE DEVELOPING CEREBRAL-CORTEX** *JOURNAL OF NEUROBIOLOGY*
Kim, G. J., Shatz, C. J., McConnell, S. K.
1991; 22 (6): 629-642
 - **THE GENERATION OF NEURONAL DIVERSITY IN THE CENTRAL-NERVOUS-SYSTEM** *ANNUAL REVIEW OF NEUROSCIENCE*
McConnell, S. K.
1991; 14: 269-300
 - **SUBPLATE NEURONS AND THE DEVELOPMENT OF NEOCORTICAL CONNECTIONS** *3RD ANNUAL SYMP OF THE RETINA RESEARCH FOUNDATION : DEVELOPMENT OF THE VISUAL SYSTEM*
Shatz, C. J., Ghosh, A., McConnell, S. K., Allendoerfer, K. L., FRIAUF, E., Antonini, A.
MIT PRESS.1991: 175-196
 - **THE SPECIFICATION OF NEURONAL IDENTITY IN THE MAMMALIAN CEREBRAL-CORTEX** *EXPERIENTIA*
McConnell, S. K.
1990; 46 (9): 922-929
 - **REQUIREMENT FOR SUBPLATE NEURONS IN THE FORMATION OF THALAMOCORTICAL CONNECTIONS** *NATURE*
Ghosh, A., Antonini, A., McConnell, S. K., Shatz, C. J.
1990; 347 (6289): 179-181
 - **FUNCTIONAL SYNAPTIC CIRCUITS IN THE SUBPLATE DURING FETAL AND EARLY POSTNATAL-DEVELOPMENT OF CAT VISUAL-CORTEX** *JOURNAL OF NEUROSCIENCE*
FRIAUF, E., McConnell, S. K., Shatz, C. J.
1990; 10 (8): 2601-2613
 - **PIONEER NEURONS AND TARGET SELECTION IN CEREBRAL CORTICAL DEVELOPMENT** *COLD SPRING HARBOR SYMPOSIA ON QUANTITATIVE BIOLOGY*
Shatz, C. J., Ghosh, A., McConnell, S. K., Allendoerfer, K. L., FRIAUF, E., Antonini, A.
1990; 55: 469-480
 - **THE DETERMINATION OF NEURONAL FATE IN THE CEREBRAL-CORTEX** *TRENDS IN NEUROSCIENCES*
McConnell, S. K.
1989; 12 (9): 342-349
 - **SUBPLATE NEURONS PIONEER THE 1ST AXON PATHWAY FROM THE CEREBRAL-CORTEX** *SCIENCE*
McConnell, S. K., Ghosh, A., Shatz, C. J.
1989; 245 (4921): 978-982
 - **FATES OF VISUAL CORTICAL-NEURONS IN THE FERRET AFTER ISOCHRONIC AND HETEROCHRONIC TRANSPLANTATION** *JOURNAL OF NEUROSCIENCE*
McConnell, S. K.
1988; 8 (3): 945-974
 - **Development and decision-making in the mammalian cerebral cortex.** *Brain research*
McConnell, S. K.
1988; 472 (1): 1-23
 - **FUNCTIONAL-ORGANIZATION OF PRIMARY VISUAL-CORTEX IN THE MINK (MUSTELA-VISON), AND A COMPARISON WITH THE CAT** *JOURNAL OF COMPARATIVE NEUROLOGY*
LeVay, S., McConnell, S. K., Luskin, M. B.
1987; 257 (3): 422-441
 - **ANATOMICAL ORGANIZATION OF THE VISUAL-SYSTEM OF THE MINK, MUSTELA-VISON** *JOURNAL OF COMPARATIVE NEUROLOGY*
McConnell, S. K., LeVay, S.
1986; 250 (1): 109-132

- **MIGRATION AND DIFFERENTIATION OF CEREBRAL CORTICAL-NEURONS AFTER TRANSPLANTATION INTO THE BRAINS OF FERRETS** *SCIENCE*
McConnell, S. K.
1985; 229 (4719): 1268-1271
- **SEGREGATION OF ON-CENTER AND OFF-CENTER AFFERENTS IN MINK VISUAL-CORTEX** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA-BIOLOGICAL SCIENCES*
McConnell, S. K., LeVay, S.
1984; 81 (5): 1590-1593
- **ON AND OFF LAYERS IN THE LATERAL GENICULATE-NUCLEUS OF THE MINK** *NATURE*
LeVay, S.
1982; 300 (5890): 350-351