



Robert Malenka

Nancy Friend Pritzker Professor in Psychiatry and Behavioral Sciences

 NIH Biosketch available Online

 Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Psychiatry and Behavioral Sciences
- Member, Bio-X
- Member, Stanford Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director, Nancy Pritzker Laboratory, (1999- present)
- co-Director, Stanford Institute for Neuro-Innovation and Translational Neurosciences, (2008-2013)
- Associate Chair, Dept. of Psychiatry & Behavioral Sciences, (2008- present)
- Deputy Director, Stanford Neurosciences Institute, (2013- present)

HONORS AND AWARDS

- Young Investigator Award, Society for Neuroscience (1993)
- Daniel Efron Award, American College of Neuropsychopharmacology (1998)
- Distinguished Alumni Award, Stanford Medical School (1998)
- Associate, Neurosciences Research Program (1999-2006)
- International Prize in Neuroscience, Dargut and Milena Kemali Foundation (2000)
- Basic Neuroscience Research Award, Collegium Internationale Neuropsychopharmacologicum-Lilly (2002)
- Member, National Academy of Medicine (2004)
- Fellow, American Academy of Arts and Sciences (2005)
- Fellow, American Association for the Advancement of Science (2009)
- Julius Axelrod Mentorship Award, American College of Neuropsychopharmacology (2011)
- Medical Research Award in Neuropsychiatry, Robert and Claire Pasarow Foundation (2011)
- Member, National Academy of Sciences (2011)
- Julius Axelrod Prize, Society for Neuroscience (2016)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Program Committee, Society for Neuroscience (1999 - 2004)
- Scientific Advisory Board, Renovis, Inc. (2000 - 2008)
- Scientific Advisory Board, Merck, Inc. (2000 - 2008)

- Scientific Council, NARSAD, Brain and Behavior Research Foundation (2001 - present)
- Council, Society for Neuroscience (2006 - 2010)
- Scientific Advisory Board, Seaside Therapeutics, Inc. (2006 - 2015)
- Scientific Advisory Board, Stanley Center for Psychiatric Research, Broad Institute, Harvard/MIT (2006 - 2016)
- Scientific Advisory Board, Pfizer, Inc. (2008 - 2011)
- Board of Directors, The Brain Research Foundation (2010 - present)
- Scientific Advisory Board, International Mental Health Research Organization (2010 - present)
- Council, American College of Neuropsychopharmacology (2012 - 2015)
- Scientific Advisory Board, Cure Alzheimer's Fund (2012 - present)
- co-Founder/Scientific Advisory Board, Circuit Therapeutics, Inc. (2012 - present)
- Scientific Advisory Board, Neurocampus, Bordeaux, France (2013 - present)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Long-lasting activity-dependent changes in the efficacy of synaptic transmission play an important role in the development of neural circuits and may mediate many forms of learning and memory. Work from my laboratory over the last 10 years has demonstrated that there are a variety of related but mechanistically distinct forms of synaptic plasticity. A major goal of my laboratory is to elucidate both the specific molecular events that are responsible for the triggering of these various forms of synaptic plasticity and the exact modifications in synaptic proteins that are responsible for the observed, long-lasting changes in synaptic efficacy. To accomplish this we use cellular electrophysiological recording techniques to examine synaptic plasticity in a variety of different in vitro preparations including thin slices of various regions of the rodent brain and primary neurons in culture. We also use cell biological and molecular techniques to examine the activity-dependent modulation of neurotransmitter receptors and to express dominant negative forms of various synaptic proteins so that their exact functions can be determined. An additional complementary approach has involved examining synaptic physiology and synaptic plasticity in various mutant mouse lines lacking specific synaptic proteins.

A related but independent area of research in my laboratory is the elucidation of the synaptic action of drugs of abuse such as the psychostimulants cocaine and amphetamine. Toward this end, we have developed in vitro slice preparations of the nucleus accumbens and ventral tegmental area, brain regions which are thought to mediate several of the behavioral effects of drugs of abuse. We have characterized a novel form of synaptic plasticity in the nucleus accumbens and have done an extensive pharmacological characterization of the synaptic effects of dopamine, cocaine, and amphetamine. Currently we are examining in more detail the underlying mechanisms of dopamine's actions and determining how chronic treatment with drugs of abuse affect the synaptic responses of nucleus accumbens and ventral tegmental area cells. Because chronic exposure to drugs of abuse elicit long-term adaptive changes in critical neural circuits, it is hoped that the knowledge gained from the work on the molecular mechanisms underlying synaptic plasticity will provide important clues to the molecular mechanisms underlying the development of tolerance, dependence and addiction.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Biafra Ahanonu, Eddy Albarran

Postdoctoral Faculty Sponsor

Dan Christoffel, Paul Hoerbelt, Peter Neumann, Monique Smith, Elizabeth Steinberg, Nicholas Wall, Jessica Walsh, Xiaoting Wu

Postdoctoral Research Mentor

Jessica Walsh, Hemmings Wu, Xiaoting Wu

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Postsynaptic synaptotagmins mediate AMPA receptor exocytosis during LTP** *NATURE*
Wu, D., Bacaj, T., Morishita, W., Goswami, D., Arendt, K. L., Xu, W., Chen, L., Malenka, R. C., Sudhof, T. C.
2017; 544 (7650): 316-?
- **Gating of social reward by oxytocin in the ventral tegmental area.** *Science (New York, N.Y.)*
Hung, L. W., Neuner, S., Polepalli, J. S., Beier, K. T., Wright, M., Walsh, J. J., Lewis, E. M., Luo, L., Deisseroth, K., Dölen, G., Malenka, R. C.
2017; 357 (6358): 1406-11
- **Brains, environments, and policy responses to addiction.** *Science (New York, N.Y.)*
Humphreys, K., Malenka, R. C., Knutson, B., MacCoun, R. J.
2017; 356 (6344): 1237-38
- **Rabies screen reveals GPe control of cocaine-triggered plasticity.** *Nature*
Beier, K. T., Kim, C. K., Hoerbel, P., Hung, L. W., Heifets, B. D., DeLoach, K. E., Mosca, T. J., Neuner, S., Deisseroth, K., Luo, L., Malenka, R. C.
2017
- **Input- and Output-Specific Regulation of Serial Order Performance by Corticostriatal Circuits.** *Neuron*
Rothwell, P. E., Hayton, S. J., Sun, G. L., Fuccillo, M. V., Lim, B. K., Malenka, R. C.
2015; 88 (2): 345-356
- **Circuit Architecture of VTA Dopamine Neurons Revealed by Systematic Input-Output Mapping** *CELL*
Beier, K. T., Steinberg, E. E., DeLoach, K. E., Xie, S., Miyamichi, K., Schwarz, L., Gao, X. J., Kremer, E. J., Malenka, R. C., Luo, L.
2015; 162 (3): 622-634
- **Circuit Architecture of VTA Dopamine Neurons Revealed by Systematic Input-Output Mapping.** *Cell*
Beier, K. T., Steinberg, E. E., DeLoach, K. E., Xie, S., Miyamichi, K., Schwarz, L., Gao, X. J., Kremer, E. J., Malenka, R. C., Luo, L.
2015; 162 (3): 622-634
- **Optogenetics and the circuit dynamics of psychiatric disease.** *JAMA*
Deisseroth, K., Etkin, A., Malenka, R. C.
2015; 313 (20): 2019-2020
- **Illuminating circuitry relevant to psychiatric disorders with optogenetics** *CURRENT OPINION IN NEUROBIOLOGY*
Steinberg, E. E., Christoffel, D. J., Deisseroth, K., Malenka, R. C.
2015; 30: 9-16
- **Chronic pain. Decreased motivation during chronic pain requires long-term depression in the nucleus accumbens.** *Science*
Schwartz, N., Temkin, P., Jurado, S., Lim, B. K., Heifets, B. D., Polepalli, J. S., Malenka, R. C.
2014; 345 (6196): 535-542
- **Decreased motivation during chronic pain requires long-term depression in the nucleus accumbens** *SCIENCE*
Schwartz, N., Temkin, P., Jurado, S., Lim, B. K., Heifets, B. D., Polepalli, J. S., Malenka, R. C.
2014; 345 (6196): 535-542
- **Social reward requires coordinated activity of nucleus accumbens oxytocin and serotonin** *NATURE*
Doelen, G., Darvishzadeh, A., Huang, K. W., Malenka, R. C.
2013; 501 (7466): 179-?
- **Leucine-Rich Repeat Transmembrane Proteins Are Essential for Maintenance of Long-Term Potentiation** *NEURON*
Soler-Llavina, G. J., Arstikaitis, P., Morishita, W., Ahmad, M., Sudhof, T. C., Malenka, R. C.

2013; 79 (3): 439-446

- **Diverging neural pathways assemble a behavioural state from separable features in anxiety** *NATURE*
Kim, S., Adhikari, A., Lee, S. Y., Marshel, J. H., Kim, C. K., Mallory, C. S., Lo, M., Pak, S., Mattis, J., Lim, B. K., Malenka, R. C., Warden, M. R., Neve, et al
2013; 496 (7444): 219-223
- **LTP Requires a Unique Postsynaptic SNARE Fusion Machinery** *NEURON*
Jurado, S., Goswami, D., Zhang, Y., Minano Molina, A. J., Suedhof, T. C., Malenka, R. C.
2013; 77 (3): 542-558
- **Input-specific control of reward and aversion in the ventral tegmental area** *NATURE*
Lammel, S., Lim, B. K., Ran, C., Huang, K. W., Betley, M. J., Tye, K. M., Deisseroth, K., Malenka, R. C.
2012; 491 (7423): 212-?
- **Anhedonia requires MC4R-mediated synaptic adaptations in nucleus accumbens** *NATURE*
Lim, B. K., Huang, K. W., Grueter, B. A., Rothwell, P. E., Malenka, R. C.
2012; 487 (7406): 183-U64
- **Integrating synaptic plasticity and striatal circuit function in addiction** *CURRENT OPINION IN NEUROBIOLOGY*
Grueter, B. A., Rothwell, P. E., Malenka, R. C.
2012; 22 (3): 545-551
- **Distinct Neuronal Coding Schemes in Memory Revealed by Selective Erasure of Fast Synchronous Synaptic Transmission** *NEURON*
Xu, W., Morishita, W., Buckmaster, P. S., Pang, Z. P., Malenka, R. C., Suedhof, T. C.
2012; 73 (5): 990-1001
- **Postsynaptic Complexin Controls AMPA Receptor Exocytosis during LTP** *NEURON*
Ahmad, M., Polepalli, J. S., Goswami, D., Yang, X., Kaeser-Woo, Y. J., Suedhof, T. C., Malenka, R. C.
2012; 73 (2): 260-267
- **Comprehensive qPCR profiling of gene expression in single neuronal cells** *NATURE PROTOCOLS*
Citri, A., Pang, Z. P., Suedhof, T. C., Wernig, M., Malenka, R. C.
2012; 7 (1): 118-127
- **The neurexin ligands, neuroligins and leucine-rich repeat transmembrane proteins, perform convergent and divergent synaptic functions in vivo** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Soler-Llavina, G. J., Fuccillo, M. V., Ko, J., Suedhof, T. C., Malenka, R. C.
2011; 108 (40): 16502-16509
- **Projection-Specific Modulation of Dopamine Neuron Synapses by Aversive and Rewarding Stimuli** *NEURON*
Lammel, S., Ion, D. I., Roeper, J., Malenka, R. C.
2011; 70 (5): 855-862
- **Postsynaptic TRPV1 triggers cell type-specific long-term depression in the nucleus accumbens** *NATURE NEUROSCIENCE*
Grueter, B. A., Brasnjo, G., Malenka, R. C.
2010; 13 (12): 1519-U107
- **A calcineurin/AKAP complex is required for NMDA receptor-dependent long-term depression** *NATURE NEUROSCIENCE*
Jurado, S., Biou, V., Malenka, R. C.
2010; 13 (9): 1053-1055
- **Understanding Synapses: Past, Present, and Future** *NEURON*
Suedhof, T. C., Malenka, R. C.
2008; 60 (3): 469-476
- **Endocannabinoid-mediated rescue of striatal LTD and motor deficits in Parkinson's disease models** *NATURE*
Kreitzer, A. C., Malenka, R. C.
2007; 445 (7128): 643-647
- **The Retromer Supports AMPA Receptor Trafficking During LTP** *NEURON*
Temkin, P., Morishita, W., Goswami, D., Arendt, K., Chen, L., Malenka, R.

2017; 94 (1): 74-?

- **Conditional ablation of neuroligin-1 in CA1 pyramidal neurons blocks LTP by a cell-autonomous NMDA receptor-independent mechanism** *MOLECULAR PSYCHIATRY*
Jiang, M., Polepalli, J., Chen, L. Y., Zhang, B., Sudhof, T. C., Malenka, R. C.
2017; 22 (3): 375-383
- **A Brainstem-Spinal Cord Inhibitory Circuit for Mechanical Pain Modulation by GABA and Enkephalins.** *Neuron*
François, A., Low, S. A., Sypek, E. I., Christensen, A. J., Sotoudeh, C., Beier, K. T., Ramakrishnan, C., Ritola, K. D., Sharif-Naeini, R., Deisseroth, K., Delp, S. L., Malenka, R. C., Luo, et al
2017; 93 (4): 822-839 e6
- **Modulation of excitation on parvalbumin interneurons by neuroligin-3 regulates the hippocampal network** *NATURE NEUROSCIENCE*
Polepalli, J. S., Wu, H., Goswami, D., Halpern, C. H., Sudhof, T. C., Malenka, R. C.
2017; 20 (2): 219-229
- **Single-cell RNAseq reveals cell adhesion molecule profiles in electrophysiologically defined neurons.** *Proceedings of the National Academy of Sciences of the United States of America*
Földy, C., Darmanis, S., Aoto, J., Malenka, R. C., Quake, S. R., Südhof, T. C.
2016; 113 (35): E5222-31
- **Cellular Taxonomy of the Mouse Striatum as Revealed by Single-Cell RNA-Seq** *CELL REPORTS*
Gokce, O., Stanley, G. M., Treutlein, B., Neff, N. F., Camp, J. G., Malenka, R. C., Rothwell, P. E., Fuccillo, M. V., Sudhof, T. C., Quake, S. R.
2016; 16 (4): 1126-1137
- **Structural foundations of optogenetics: Determinants of channelrhodopsin ion selectivity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Berndt, A., Lee, S. Y., Wietek, J., Ramakrishnan, C., Steinberg, E. E., Rashid, A. J., Kim, H., Park, S., Santoro, A., Frankland, P. W., Iyer, S. M., Pak, S., Ahrlund-Richter, et al
2016; 113 (4): 822-829
- **Synaptotagmin-1 and -7 Are Redundantly Essential for Maintaining the Capacity of the Readily-Releasable Pool of Synaptic Vesicles.** *PLoS biology*
Bacaj, T., Wu, D., Burré, J., Malenka, R. C., Liu, X., Südhof, T. C.
2015; 13 (10)
- **Synaptotagmin-1 and-7 Are Redundantly Essential for Maintaining the Capacity of the Readily-Releasable Pool of Synaptic Vesicles** *PLOS BIOLOGY*
Bacaj, T., Wu, D., Burre, J., Malenka, R. C., Liu, X., Südhof, T. C.
2015; 13 (10)
- **Viral-genetic tracing of the input-output organization of a central noradrenergic circuit.** *Nature*
Schwarz, L. A., Miyamichi, K., Gao, X. J., Beier, K. T., Weissbourd, B., DeLoach, K. E., Ren, J., Ibanes, S., Malenka, R. C., Kremer, E. J., Luo, L.
2015; 524 (7563): 88-92
- **Intact-Brain Analyses Reveal Distinct Information Carried by SNc Dopamine Subcircuits** *CELL*
Lerner, T. N., Shilyansky, C., Davidson, T. J., Evans, K. E., Beier, K. T., Zalocusky, K. A., Crow, A. K., Malenka, R. C., Luo, L., Tomer, R., Deisseroth, K.
2015; 162 (3): 635-647
- **Intact-Brain Analyses Reveal Distinct Information Carried by SNc Dopamine Subcircuits.** *Cell*
Lerner, T. N., Shilyansky, C., Davidson, T. J., Evans, K. E., Beier, K. T., Zalocusky, K. A., Crow, A. K., Malenka, R. C., Luo, L., Tomer, R., Deisseroth, K.
2015; 162 (3): 635-647
- **β-Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling.** *Cell*
Anderson, G. R., Aoto, J., Tabuchi, K., Földy, C., Covy, J., Yee, A. X., Wu, D., Lee, S., Chen, L., Malenka, R. C., Südhof, T. C.
2015; 162 (3): 593-606
- **beta-Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling** *CELL*
Anderson, G. R., Aoto, J., Tabuchi, K., Földy, C., Covy, J., Yee, A. X., Wu, D., Lee, S., Chen, L., Malenka, R. C., Südhof, T. C.
2015; 162 (3): 593-606
- **Single-Cell mRNA Profiling Reveals Cell-Type-Specific Expression of Neurexin Isoforms.** *Neuron*
Fuccillo, M. V., Földy, C., Gökce, Ö., Rothwell, P. E., Sun, G. L., Malenka, R. C., Südhof, T. C.

2015; 87 (2): 326-340

- **Excitatory transmission at thalamo-striatal synapses mediates susceptibility to social stress** *NATURE NEUROSCIENCE*
Christoffel, D. J., Golden, S. A., Walsh, J. J., Guise, K. G., Heshmati, M., Friedman, A. K., Dey, A., Smith, M., Rebusi, N., Pfau, M., Ables, J. L., Aleyasin, H., Khibnik, et al
2015; 18 (7): 962-?
- **Excitatory transmission at thalamo-striatal synapses mediates susceptibility to social stress.** *Nature neuroscience*
Christoffel, D. J., Golden, S. A., Walsh, J. J., Guise, K. G., Heshmati, M., Friedman, A. K., Dey, A., Smith, M., Rebusi, N., Pfau, M., Ables, J. L., Aleyasin, H., Khibnik, et al
2015; 18 (7): 962-964
- **Synaptic Function of Rab11Fip5: Selective Requirement for Hippocampal Long-Term Depression** *JOURNAL OF NEUROSCIENCE*
Bacaj, T., Ahmad, M., Jurado, S., Malenka, R. C., Suedhof, T. C.
2015; 35 (19): 7460-7474
- **Neuronal Activity Promotes Glioma Growth through Neuroligin-3 Secretion** *CELL*
Venkatesh, H. S., Johung, T. B., Caretti, V., Noll, A., Tang, Y., Nagaraja, S., Gibson, E. M., Mount, C. W., Polepalli, J., Mitra, S. S., Woo, P. J., Malenka, R. C., Vogel, et al
2015; 161 (4): 803-816
- **Retinoic Acid and LTP Recruit Postsynaptic AMPA Receptors Using Distinct SNARE-Dependent Mechanisms** *NEURON*
Arendt, K. L., Zhang, Y., Jurado, S., Malenka, R. C., Suedhof, T. C., Chen, L.
2015; 86 (2): 442-456
- **B-Lymphocyte-Mediated Delayed Cognitive Impairment following Stroke.** *journal of neuroscience*
Doyle, K. P., Quach, L. N., Solé, M., Axtell, R. C., Nguyen, T. V., Soler-Llavina, G. J., Jurado, S., Han, J., Steinman, L., Longo, F. M., Schneider, J. A., Malenka, R. C., Buckwalter, et al
2015; 35 (5): 2133-2145
- **Diversity of transgenic mouse models for selective targeting of midbrain dopamine neurons.** *Neuron*
Lammel, S., Steinberg, E. E., Földy, C., Wall, N. R., Beier, K., Luo, L., Malenka, R. C.
2015; 85 (2): 429-438
- **Diversity of transgenic mouse models for selective targeting of midbrain dopamine neurons.** *Neuron*
Lammel, S., Steinberg, E. E., Földy, C., Wall, N. R., Beier, K., Luo, L., Malenka, R. C.
2015; 85 (2): 429-438
- **Depression: the best way forward.** *Nature*
Monteggia, L. M., Malenka, R. C., Deisseroth, K.
2014; 515 (7526): 200-201
- **The emerging role of nucleus accumbens oxytocin in social cognition.** *Biological psychiatry*
Dölen, G., Malenka, R. C.
2014; 76 (5): 354-355
- **Cav1.3 channels control D2-autoreceptor responses via NCS-1 in substantia nigra dopamine neurons.** *Brain*
Dragicevic, E., Poetschke, C., Duda, J., Schlaudraff, F., Lammel, S., Schieman, J., Fauler, M., Hetzel, A., Watanabe, M., Lujan, R., Malenka, R. C., Striessnig, J., Liss, et al
2014; 137: 2287-2302
- **Autism-associated neuroligin-3 mutations commonly impair striatal circuits to boost repetitive behaviors.** *Cell*
Rothwell, P. E., Fuccillo, M. V., Maxeiner, S., Hayton, S. J., Gokce, O., Lim, B. K., Fowler, S. C., Malenka, R. C., Südhof, T. C.
2014; 158 (1): 198-212
- **Natural neural projection dynamics underlying social behavior.** *Cell*
Gunaydin, L. A., Grosenick, L., Finkelstein, J. C., Kauvar, I. V., Fenno, L. E., Adhikari, A., Lammel, S., Mirzabekov, J. J., Airan, R. D., Zalocusky, K. A., Tye, K. M., Anikeeva, P., Malenka, et al
2014; 157 (7): 1535-1551
- **the Basal Ganglia of a Mouse Model of 16p11.2 Deletion Syndrome** *CELL REPORTS*

- Portmann, T., Yang, M., Mao, R., Panagiotakos, G., Ellegood, J., Dolen, G., Bader, P. L., Grueter, B. A., Goold, C., Fisher, E., Clifford, K., Rengarajan, P., Kalikhman, et al
2014; 7 (4): 1077-1092
- **Ionotropic NMDA Receptor Signaling Is Required for the Induction of Long-Term Depression in the Mouse Hippocampal CA1 Region** *JOURNAL OF NEUROSCIENCE*
Babiec, W. E., Guglietta, R., Jami, S. A., Morishita, W., Malenka, R. C., O'Dell, T. J.
2014; 34 (15): 5285-5290
 - **Reward and aversion in a heterogeneous midbrain dopamine system** *NEUROPHARMACOLOGY*
Lammel, S., Lim, B. K., Malenka, R. C.
2014; 76: 351-359
 - **Synaptotagmin-1 and synaptotagmin-7 trigger synchronous and asynchronous phases of neurotransmitter release.** *Neuron*
Bacaj, T., Wu, D., Yang, X., Morishita, W., Zhou, P., Xu, W., Malenka, R. C., Südhof, T. C.
2013; 80 (4): 947-959
 - **Presynaptic Neurexin-3 Alternative Splicing trans-Synaptically Controls Postsynaptic AMPA Receptor Trafficking** *CELL*
Aoto, J., Martinelli, D. C., Malenka, R. C., Tabuchi, K., Südhof, T. C.
2013; 154 (1): 75-88
 - **Double deletion of melanocortin 4 receptors and SAPAP3 corrects compulsive behavior and obesity in mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Xu, P., Grueter, B. A., Britt, J. K., McDaniel, L., Huntington, P. J., Hodge, R., Tran, S., Mason, B. L., Lee, C., Linh Vong, L., Lowell, B. B., Malenka, R. C., Lutter, et al
2013; 110 (26): 10759-10764
 - **Autism-associated neuroligin-3 mutations commonly disrupt tonic endocannabinoid signaling.** *Neuron*
Földy, C., Malenka, R. C., Südhof, T. C.
2013; 78 (3): 498-509
 - **Delta FosB differentially modulates nucleus accumbens direct and indirect pathway function** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Grueter, B. A., Robison, A. J., Neve, R. L., Nestler, E. J., Malenka, R. C.
2013; 110 (5): 1923-1928
 - **Candidate autism gene screen identifies critical role for cell-adhesion molecule CASPR2 in dendritic arborization and spine development** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Anderson, G. R., Galfin, T., Xu, W., Aoto, J., Malenka, R. C., Südhof, T. C.
2012; 109 (44): 18120-18125
 - **Dopaminergic Neurons from Midbrain-Specified Human Embryonic Stem Cell-Derived Neural Stem Cells Engrafted in a Monkey Model of Parkinson's Disease** *PLOS ONE*
Daadi, M. M., Grueter, B. A., Malenka, R. C., Redmond, D. E., Steinberg, G. K.
2012; 7 (7)
 - **A Comparison of Striatal-Dependent Behaviors in Wild-Type and Hemizygous *Drd1a* and *Drd2* BAC Transgenic Mice** *JOURNAL OF NEUROSCIENCE*
Nelson, A. B., Hang, G. B., Grueter, B. A., Pascoli, V., Luscher, C., Malenka, R. C., Kreitzer, A. C.
2012; 32 (27): 9119-9123
 - **NMDA Receptor-Dependent Long-Term Potentiation and Long-Term Depression (LTP/LTD)** *COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY*
Luescher, C., Malenka, R. C.
2012; 4 (6)
 - **The best of times, the worst of times for psychiatric disease** *NATURE NEUROSCIENCE*
Karayiorgou, M., Flint, J., Gogos, J. A., Malenka, R. C.
2012; 15 (6): 811-812
 - **Autism-linked neuroligin-3 R451C mutation differentially alters hippocampal and cortical synaptic function** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Etherton, M., Foeldy, C., Sharma, M., Tabuchi, K., Liu, X., Shamloo, M., Malenka, R. C., Südhof, T. C.

2011; 108 (33): 13764-13769

- **Neurexins/LRRRTMs prevent activity- and Ca²⁺/calmodulin-dependent synapse elimination in cultured neurons** *JOURNAL OF CELL BIOLOGY*
Ko, J., Soler-Llavina, G. J., Fuccillo, M. V., Malenka, R. C., Suedhof, T. C.
2011; 194 (2): 323-334
- **Drug-Evoked Synaptic Plasticity in Addiction: From Molecular Changes to Circuit Remodeling** *NEURON*
Luescher, C., Malenka, R. C.
2011; 69 (4): 650-663
- **Calcium Binding to PICK1 Is Essential for the Intracellular Retention of AMPA Receptors Underlying Long-Term Depression** *JOURNAL OF NEUROSCIENCE*
Citri, A., Bhattacharyya, S., Ma, C., Morishita, W., Fang, S., Rizo, J., Malenka, R. C.
2010; 30 (49): 16437-16452
- **The addicted synapse: mechanisms of synaptic and structural plasticity in nucleus accumbens** *TRENDS IN NEUROSCIENCES*
Russo, S. J., Dietz, D. M., Dumitriu, D., Morrison, J. H., Malenka, R. C., Nestler, E. J.
2010; 33 (6): 267-276
- **LRRRTM2 Functions as a Neurexin Ligand in Promoting Excitatory Synapse Formation** *NEURON*
Ko, J., Fuccillo, M. V., Malenka, R. C., Suedhof, T. C.
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