


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, Wu Tsai 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, Wu Tsai Neurosciences Institute, (2013- present)

HONORS AND AWARDS

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

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)

Eddy Albarran, Molly Lucas, Christopher Mount, John Peters

Postdoctoral Faculty Sponsor

Brandon Bentzley, MD, PhD, Neir Eshel, Paul Hoerbelt, Anna Klawonn, Peter Neumann, Matthew Pomrenze, Monique Smith, Ting Wu

Doctoral Dissertation Advisor (AC)

Daniel Cardozo Pinto

Postdoctoral Research Mentor

Lief Fenno, Ting Wu

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **5-HT release in nucleus accumbens rescues social deficits in mouse autism model.** *Nature*
Walsh, J. J., Christoffel, D. J., Heifets, B. D., Ben-Dor, G. A., Selimbeyoglu, A., Hung, L. W., Deisseroth, K., Malenka, R. C.
2018
- **Robert Malenka** *NEURON*
Malenka, R.
2018; 98 (1): 12–15
- **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., Suedhof, 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., Marshal, 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
- **Neuroigin-1 Signaling Controls LTP and NMDA Receptors by Distinct Molecular Pathways.** *Neuron*
Wu, X., Morishita, W. K., Riley, A. M., Hale, W. D., Sudhof, T. C., Malenka, R. C.
2019
- **Nucleus Accumbens Modulation in Reward and Aversion.** *Cold Spring Harbor symposia on quantitative biology*
Klawonn, A. M., Malenka, R. C.
2019
- **Topological Organization of Ventral Tegmental Area Connectivity Revealed by Viral-Genetic Dissection of Input-Output Relations.** *Cell reports*
Beier, K. T., Gao, X. J., Xie, S., DeLoach, K. E., Malenka, R. C., Luo, L.
2019; 26 (1): 159
- **Cocaine-Induced Structural Plasticity in Input Regions to Distinct Cell Types in Nucleus Accumbens** *BIOLOGICAL PSYCHIATRY*
Barrientos, C., Knowland, D., Wu, M. J., Lilascharoen, V., Huang, K., Malenka, R. C., Lim, B.
2018; 84 (12): 893-904
- **Parallel circuits from the bed nuclei of stria terminalis to the lateral hypothalamus drive opposing emotional states.** *Nature neuroscience*
Giardino, W. J., Eban-Rothschild, A., Christoffel, D. J., Li, S., Malenka, R. C., de Lecea, L.
2018
- **Deletion of LRRTM1 and LRRTM2 in adult mice impairs basal AMPA receptor transmission and LTP in hippocampal CA1 pyramidal neurons.** *Proceedings of the National Academy of Sciences of the United States of America*
Bhourri, M., Morishita, W., Temkin, P., Goswami, D., Kawabe, H., Brose, N., Sudhof, T. C., Craig, A. M., Siddiqui, T. J., Malenka, R.
2018; 115 (23): E5382-E5389
- **EXCITATORY SYNAPSES BETWEEN PRESYNAPTIC NEURONS AND POSTSYNAPTIC GLIOMA CELLS PROMOTE DIPG PROGRESSION**
Venkatesh, H., Geraghty, A., Morishita, W., Tam, L., Tirosh, I., Regev, A., Vogel, H., Suva, M., Malenka, R., Monje, M.
OXFORD UNIV PRESS INC.2018: 49
- **A Critical Role for the Globus Pallidus in Cocaine-Triggered Plasticity Revealed Byrabies Activity Screen**
Beier, K., Kim, C., Hoerbel, P., Hung, L., Heifets, B., DeLoach, K., Mosca, T., Neuner, S., Deisseroth, K., Luo, L., Malenka, R.
ELSEVIER SCIENCE INC.2018: S235-S236
- **Closing the loop on impulsivity via nucleus accumbens delta-band activity in mice and man.** *Proceedings of the National Academy of Sciences of the United States of America*
Wu, H., Miller, K. J., Blumenfeld, Z., Williams, N. R., Ravikumar, V. K., Lee, K. E., Kakusa, B., Sacchet, M. D., Wintermark, M., Christoffel, D. J., Rutt, B. K., Bronte-Stewart, H., Knutson, et al
2018; 115 (1): 192-97
- **Postsynaptic adhesion GPCR latrophilin-2 mediates target recognition in entorhinal-hippocampal synapse assembly** *JOURNAL OF CELL BIOLOGY*
Anderson, G. R., Maxeiner, S., Sando, R., Tsetsenis, T., Malenka, R. C., Sudhof, T. C.
2017; 216 (11): 3831-46
- **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 neuroigin-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., Südhof, 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., Südhof, 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
- **Optogenetic Approaches to Neural Circuit Analysis in the Mammalian Brain** *GENOMICS, CIRCUITS, AND PATHWAYS IN CLINICAL NEUROPSYCHIATRY*
Lammel, S., Dolen, G., Malenka, R. C., Lehner, T., Miller, B. L., State, M. W.
2016: 221–31
- **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., Foeldy, 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.
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- **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., Schiemann, 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
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