

Stanford



Theo Palmer

Professor of Neurosurgery, Emeritus

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Professor Emeritus-Hourly, Neurosurgery
- Member, Bio-X
- Member, Institute for Stem Cell Biology and Regenerative Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Scientific Advisor, Kinetics Foundation, (2001-2007)
- Scientific Advisory Board, Michael J. Fox Foundation, (2002-2010)
- Committee Chair, Stanford Stem Cell Research Oversight Committee, (2006-2009)
- Scientific Advisory Board, Founding Member, The Stem Cell Advisors, (2008-2015)
- Scientific Advisory Board, Children's Neurobiological Solutions, (2005- present)
- Adjunct Associate Research Scientist, The Parkinson's Institute, Sunnyvale, CA, (2005- present)
- Visiting Professor, Institute of Neuroscience, Chinese Academy of Sciences, Shanghai, (2005- present)
- Scientific Advisory Board, A-T Children's Project, (2015- present)

HONORS AND AWARDS

- Judith Graham Pool Award, National Hemophilia Foundation (1991)
- Michael J Fox Fellowship in Stem Cell Research at Stanford, Michael J. Fox Foundation (2002)
- Mitsubishi Pharma Stem Cell Research Award, Mitsubishi Pharma Inc. (2002)
- Margot Anderson Wings of Hope Award, Margot Anderson Foundation (2002)
- Grass Lectureship, The Grass Foundation (2003)

- Kinetics Foundation Award for Research in Stem Cell Biology, The Kinetics Foundation (2004)
- Hearst Faculty Scholar, Hearst Foundation (2007)
- Blume Award in Parkinson's Disease Research, Blume Foundation (2007-present)

PROFESSIONAL EDUCATION

- BS, Andrews University , Biology (1981)
- Ph.D., University of Washington , Experimental Pathology (1990)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Human brain development and maintenance is orchestrated by complex interactions between genetic and environmental factors. Our research examines how neural stem cells respond to these factors and how these responses influence the integration of newly generated neurons into functional neural circuits.

NEURAL STEM CELLS IN BRAIN DEVELOPMENT: Our studies of neurogenesis in the developing brain focus on the influence of maternal health or illness on fetal brain development. In humans, certain illnesses and infections during pregnancy are associated with increased risk of a neurodevelopmental disorder in the child. In mice, even mild maternal illness during early pregnancy can alter stem cell activity in the developing fetal brain. Offspring are born with subtle changes in brain function that affect social behavior and cognition. The effects are most reminiscent of features seen in children with autism or intellectual disability.

Diseases such as autism, intellectual disability, and schizophrenia are caused by complex and poorly understood combinations of genetic and environmental factors. Although many genetic risk factors for neurodevelopmental disorders have been identified, few single-gene mutations are alone sufficient to cause the disorder. For example, in autism, genetics alone may account for less than half of all diagnoses and it is thought that environmental factors must also act during gestation or in the infant to alter brain development. In mice, we have found that several weak genetic risk factors act on the same developmental processes that are affected by a maternal illness during pregnancy. Alone, the genetic and immune risks have only mild influences. When gene and immune risks are combined during pregnancy, social behavior and cognition are severely effected in the offspring.

Our ongoing research hopes to identify additional combinations of mild genetic and environmental risks that have synergistically negative effects on brain development. Ultimately, our hope is to develop diagnostic tools that identify genetic risks that are alone insignificant but place the developing child at very high risk from an environmental "second hit". Knowledge of these unanticipated synergies provides the first step in educating both physicians and mothers about risks and measures that may be taken to reduce risk and prevent neurodevelopmental disorders.

HUMAN PLURIPOTENT STEM CELLS TO STUDY AND TREAT NEUROLOGICAL DISEASE: Using information gained from studying neural stem cells in development, it has been possible to recreate the conditions of human fetal neurogenesis in the Petri dish. We are now able to use pluripotent stem cells to generate many types of human neurons, including those most affected in autism, schizophrenia, Alzheimer's disease and Parkinson's disease. With pluripotent stem cells derived from individuals with autism or schizophrenia, we are studying how genetic risk factors act to alter brain development. With stem cells derived from patients with Parkinson's disease, we are discovering how genetic risk factors cause neurons to die in later life. In addition to using pluripotent stem cells as a discovery platform for disease mechanisms, we ultimately hope to use stem cell therapies to augment or restore function in conditions where neurons are irreversibly lost due to stroke, injury or age-related degeneration.

Teaching

COURSES

2023-24

- Stem Cells Immersion: Applications in Medicine, Business and Law: STEMREM 203 (Aut, Win)

2022-23

- Stem Cells Immersion: Applications in Medicine, Business and Law: STEMREM 203 (Aut, Win)

2021-22

- Stem Cells Immersion: Applications in Medicine, Business and Law: STEMREM 203 (Aut, Spr, Sum)

2020-21

- Stem Cells Immersion: Applications in Medicine, Business and Law: STEMREM 203 (Aut, Win, Spr, Sum)

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Developmental Biology (Phd Program)
- Immunology (Phd Program)
- Neurosciences (Phd Program)
- Stem Cell Biology and Regenerative Medicine (Phd Program)

Publications

PUBLICATIONS

- **FOXP3+ regulatory T cells use heparanase to access IL-2 bound to ECM in inflamed tissues.** *bioRxiv : the preprint server for biology*
Martinez, H. A., Koliesnik, I., Kaber, G., Reid, J. K., Nagy, N., Barlow, G., Falk, B. A., Medina, C. O., Hargil, A., Vlodavsky, I., Li, J. P., Pérez-Cruz, M., Tang, et al
2023
- **Gestationally dependent immune organization at the maternal-fetal interface.** *Cell reports*
Moore, A. R., Vivanco Gonzalez, N., Plummer, K. A., Mitchel, O. R., Kaur, H., Rivera, M., Collica, B., Goldston, M., Filiz, F., Angelo, M., Palmer, T. D., Bendall, S. C.
2022; 41 (7): 111651
- **EXAMINING SEX-LINKED TRENDS IN THE PLACENTAL TRANSCRIPTOME DURING DEVELOPMENTAL WINDOW OF FETAL ANDROGEN PRODUCTION**
Braun, A., Muench, K., Palmer, T., Winn, V.
W B SAUNDERS CO LTD.2021: E31
- **Females Are Not Just 'Protected' Males: Sex-Specific Vulnerabilities in Placenta and Brain after Prenatal Immune Disruption.**
Braun, A. E., Carpentier, P. A., Babineau, B. A., Narayan, A. R., Kielhold, M. L., Moon, H., Su, J., Saravanapandian, V., Palmer, T. D.
SPRINGER HEIDELBERG.2021: 61A-62A
- **16p11.2 microdeletion imparts transcriptional alterations in human iPSC-derived models of early neural development.** *eLife*
Roth, J. G., Muench, K. L., Asokan, A., Mallett, V. M., Gai, H., Verma, Y., Weber, S., Charlton, C., Fowler, J. L., Loh, K. M., Dolmetsch, R. E., Palmer, T. D.
2020; 9
- **Examining Sex Differences in the Human Placental Transcriptome During the First Fetal Androgen Peak.** *Reproductive sciences (Thousand Oaks, Calif.)*
Braun, A. E., Muench, K. L., Robinson, B. G., Wang, A., Palmer, T. D., Winn, V. D.
2020
- **An evolutionarily acquired microRNA shapes development of mammalian cortical projections.** *Proceedings of the National Academy of Sciences of the United States of America*

Diaz, J. L., Siththanandan, V. B., Lu, V., Gonzalez-Nava, N., Pasquina, L., MacDonald, J. L., Woodworth, M. B., Ozkan, A., Nair, R., He, Z., Sahni, V., Sarnow, P., Palmer, et al
2020

● **Aberrant calcium channel splicing drives defects in cortical differentiation in Timothy Syndrome.** *eLife*

Panagiotakos, G., Haveles, C., Arjun, A., Petrova, R., Rana, A., Portmann, T., Pasca, S. P., Palmer, T. D., Dolmetsch, R. E.
2019; 8

● **"Females are not just 'protected' males:" Sex-specific vulnerabilities in placenta and brain after prenatal immune disruption.** *eNeuro*

Braun, A. E., Carpentier, P. A., Babineau, B. A., Narayan, A. R., Kielhold, M. L., Moon, H. M., Shankar, A., Su, J., Saravanapandian, V., Haditsch, U., Palmer, T. D.
2019

● **COMPARATIVE FUNCTIONAL GENOMICS ANALYSES OF THE 16P11.2 DELETION AND DUPLICATION CNVs IN A HUMAN iPSC-TO-INDUCED NEURON MODEL**

Zhang, X., Thomas, W., Leung, L., Zhou, B., Muench, K., Plastini, M., Pattini, R., Ho, S., Ho, M., Huang, Y., Hallmayer, J., Mourrain, P., Palmer, et al
ELSEVIER.2019: S66

● **Adult-generated neurons born during chronic social stress are uniquely adapted to respond to subsequent chronic social stress** *MOLECULAR PSYCHIATRY*

De Miguel, Z., Haditsch, U., Palmer, T. D., Azpiroz, A., Sapolsky, R. M.
2019; 24 (8): 1178–88

● **IN-DEPTH CHARACTERIZATION OF GESTATIONAL IMMUNE DYNAMICS USING MASS CYTOMETRY**

Moore, A., Vivanco-Gonzalez, N., Plummer, K., Mitchel, O., Kaur, H., Rivera, M., Bendall, S., Palmer, T.
W B SAUNDERS CO LTD.2019: E87–E88

● **Human 3D cellular model of hypoxic brain injury of prematurity** *NATURE MEDICINE*

Pasca, A. M., Park, J., Shin, H., Qi, Q., Revah, O., Krasnoff, R., O'Hara, R., Willsey, A., Palmer, T. D., Pascz, S. P.
2019; 25 (5): 784–

● **An Immune Atlas of Mid to Late Mouse Gestation.**

Moore, A. R., Vivanco-Gonzalez, N., Plummer, K., Kaur, H., Mitchel, O., Rivera, M., Bendall, S. C., Palmer, T. D.
SAGE PUBLICATIONS INC.2019: 345A–346A

● **Human 3D cellular model of hypoxic brain injury of prematurity.** *Nature medicine*

Pa#ca, A. M., Park, J. Y., Shin, H. W., Qi, Q. n., Revah, O. n., Krasnoff, R. n., O'Hara, R. n., Willsey, A. J., Palmer, T. D., Pa#ca, S. P.
2019

● **Characterization of Brain Dysfunction Induced by Bacterial Lipopeptides That Alter Neuronal Activity and Network in Rodent Brains** *JOURNAL OF NEUROSCIENCE*

Kim, K., Zamaleeva, A. I., Lee, Y., Ahmed, M., Kim, E., Lee, H., Pothineni, V., Tao, J., Rhee, S., Jayakumar, M., Inayathullah, M., Sivanesan, S., Red-Horse, et al
2018; 38 (50): 10672–91

● **Characterization of brain dysfunction induced by bacterial lipopeptides that alter neuronal activity and network in rodent brains.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*

Kim, K., Zamaleeva, A. I., Woo Lee, Y., Ahmed, M. R., Kim, E., Lee, H., Raveendra Pothineni, V., Tao, J., Rhee, S., Jayakumar, M., Inayathullah, M., Sivanesan, S., Red-Horse, et al
2018

● **microRNAs Refine Cortical Projection Neuron Subtype during Mammalian Development**

Siththanandan, V., Diaz, J., Lu, V., Gonzalez-Nava, N., Pasquina, L., MacDonald, J., Woodworth, M., Sahni, V., Sarnow, P., Palmer, T., Macklis, J., Tharin, S.
WILEY.2018: S276–S277

● **Adult-generated neurons born during chronic social stress are uniquely adapted to respond to subsequent chronic social stress.** *Molecular psychiatry*

De Miguel, Z., Haditsch, U., Palmer, T. D., Azpiroz, A., Sapolsky, R. M.
2018

● **RNA-protein interaction detection in living cells.** *Nature methods*

Ramanathan, M. n., Majzoub, K. n., Rao, D. S., Neela, P. H., Zarnegar, B. J., Mondal, S. n., Roth, J. G., Gai, H. n., Kovalski, J. R., Siprashvili, Z. n., Palmer, T. D., Carette, J. E., Khavari, et al

2018

- **A Knockin Reporter Allows Purification and Characterization of mDA Neurons from Heterogeneous Populations** *CELL REPORTS*
Xia, N., Fang, F., Zhang, P., Cui, J., Tep-Cullison, C., Hamerley, T., Lee, H. J., Palmer, T., Bothner, B., Lee, J. H., Pera, R. R.
2017; 18 (10): 2533-2546
- **Phosphorylation of αB-crystallin supports reactive astrogliosis in demyelination.** *Proceedings of the National Academy of Sciences of the United States of America*
Kuipers, H. F., Yoon, J., van Horssen, J., Han, M. H., Bollyky, P. L., Palmer, T. D., Steinman, L.
2017; 114 (9): E1745-E1754
- **Functional Impairment in Miro Degradation and Mitophagy Is a Shared Feature in Familial and Sporadic Parkinson's Disease** *CELL STEM CELL*
Hsieh, C., Shaltouki, A., Gonzalez, A. E., Da Cruz, A. B., Burbulla, L. F., St Lawrence, E., Schule, B., Krainc, D., Palmer, T. D., Wang, X.
2016; 19 (6): 709-724
- **Functional Impairment in Miro Degradation and Mitophagy Is a Shared Feature in Familial and Sporadic Parkinson's Disease.** *Cell stem cell*
Hsieh, C., Shaltouki, A., Gonzalez, A. E., Bettencourt Da Cruz, A., Burbulla, L. F., St Lawrence, E., Schüle, B., Krainc, D., Palmer, T. D., Wang, X.
2016
- **The Role of the Microenvironmental Niche in Declining Stem-Cell Functions Associated with Biological Aging** *COLD SPRING HARBOR PERSPECTIVES IN MEDICINE*
DeCarolis, N. A., Kirby, E. D., Wyss-Coray, T., Palmer, T. D.
2015; 5 (12)
- **Aging-Like Changes in the Transcriptome of Irradiated Microglia** *GLIA*
Li, M. D., Burns, T. C., Kumar, S., Morgan, A. A., Sloan, S. A., Palmer, T. D.
2015; 63 (5): 754-767
- **Acute Subclinical Maternal Inflammation in Late Pregnancy**
Ozen, M., Zhao, H., Winn, V. D., Lewis, D. B., Kalish, F., Palmer, T. D., Wong, R. J., Stevenson, D. K.
SAGE PUBLICATIONS INC.2015: 89A–90A
- **The Role of the Microenvironmental Niche in Declining Stem-Cell Functions Associated with Biological Aging.** *Cold Spring Harbor perspectives in medicine*
DeCarolis, N. A., Kirby, E. D., Wyss-Coray, T., Palmer, T. D.
2015; 5 (12)
- **The Relationship Between Serial [(18)F]PBR06 PET Imaging of Microglial Activation and Motor Function Following Stroke in Mice** *MOLECULAR IMAGING AND BIOLOGY*
Lartey, F. M., Ahn, G., Ali, R., Rosenblum, S., Miao, Z., Arksey, N., Shen, B., Colomer, M. V., Rafat, M., Liu, H., Alejandre-Alcazar, M. A., Chen, J. W., Palmer, et al
2014; 16 (6): 821-829
- **The relationship between serial [(18)F]PBR06 PET imaging of microglial activation and motor function following stroke in mice.** *Molecular imaging and biology*
Lartey, F. M., Ahn, G., Ali, R., Rosenblum, S., Miao, Z., Arksey, N., Shen, B., Colomer, M. V., Rafat, M., Liu, H., Alejandre-Alcazar, M. A., Chen, J. W., Palmer, et al
2014; 16 (6): 821-829
- **Stress and glucocorticoids promote oligodendrogenesis in the adult hippocampus** *MOLECULAR PSYCHIATRY*
Chetty, S., Friedman, A. R., Taravosh-Lahn, K., Kirby, E. D., Mirescu, C., Guo, F., Krupik, D., Nicholas, A., Geraghty, C., Krishnamurthy, A., Tsai, M., Covarrubias, D., Wong, et al
2014; 19 (12): 1275-1283
- **Differential phosphorylation of alpha B-crystallin in astrocytes and oligodendrocytes suggests a diversity in its biological function**
Kuipers, H. F., Yoon, J., Winderl, J., Van Horssen, J., Han, M. H., Palmer, T. D., Steinman, L.
ELSEVIER SCIENCE BV.2014: 157–58
- **PET Imaging of Stroke-Induced Neuroinflammation in Mice Using [F-18]PBR06** *MOLECULAR IMAGING AND BIOLOGY*
Lartey, F. M., Ahn, G., Shen, B., Cord, K., Smith, T., Chua, J. Y., Rosenblum, S., Liu, H., James, M. L., Chernikova, S., Lee, S. W., Pisani, L. J., Tirouvanziam, et al
2014; 16 (1): 109-117

- **Stereotypical alterations in cortical patterning are associated with maternal illness-induced placental dysfunction.** *Journal of neuroscience*
Carpentier, P. A., Haditsch, U., Braun, A. E., Cantu, A. V., Moon, H. M., Price, R. O., Anderson, M. P., Saravanapandian, V., Ismail, K., Rivera, M., Weimann, J. M., Palmer, T. D.
2013; 33 (43): 16874-16888
- **Natural Killer Cell-Activating Receptor NKG2D Mediates Innate Immune Targeting of Allogeneic Neural Progenitor Cell Grafts** *STEM CELLS*
Phillips, L. K., Gould, E. A., Babu, H., Kramm, S. M., Palmer, T. D., Martinez, O. M.
2013; 31 (9): 1829-1839
- **Neuronal Rac1 is required for learning-evoked neurogenesis.** *Journal of neuroscience*
Haditsch, U., Anderson, M. P., Freewoman, J., Cord, B., Babu, H., Brakebusch, C., Palmer, T. D.
2013; 33 (30): 12229-12241
- **Neuronal Rac1 Is Required for Learning-Evoked Neurogenesis** *JOURNAL OF NEUROSCIENCE*
Haditsch, U., Anderson, M. P., Freewoman, J., Cord, B., Babu, H., Brakebusch, C., Palmer, T. D.
2013; 33 (30): 12229-12241
- **DIFFERENTIAL ROLES FOR THE SMALL HEAT SHOCK PROTEIN ALPHA B-CRYSTALLIN IN DE- & REMYELINATION** *11th European Meeting on Glial Cell Function in Health and Disease*
Kuipers, H., Yoon, J., Winderl, J., van Horssen, J., Palmer, T., Steinman, L.
WILEY-BLACKWELL.2013: S185-S185
- **Absence of CCL2 is sufficient to restore hippocampal neurogenesis following cranial irradiation.** *Brain, behavior, and immunity*
Lee, S. W., Haditsch, U., Cord, B. J., Guzman, R., Kim, S. J., Boettcher, C., Priller, J., Ormerod, B. K., Palmer, T. D.
2013; 30: 33-44
- **Differential roles of TNFR1 and TNFR2 signaling in adult hippocampal neurogenesis.** *Brain, behavior, and immunity*
Chen, Z., Palmer, T. D.
2013; 30: 45-53
- **Lineage tracing with Axin2 reveals distinct developmental and adult populations of Wnt/β-catenin-responsive neural stem cells.** *Proceedings of the National Academy of Sciences of the United States of America*
Bowman, A. N., van Amerongen, R., Palmer, T. D., Nusse, R.
2013; 110 (18): 7324-7329
- **PPAR gamma activation prevents impairments in spatial memory and neurogenesis following transient illness** *BRAIN BEHAVIOR AND IMMUNITY*
Ormerod, B. K., Hanft, S. J., Asokan, A., Haditsch, U., Lee, S. W., Palmer, T. D.
2013; 29: 28-38
- **LIPOPOLYSACCHARIDE EXPOSURE IN EARLY PREGNANCY IS ASSOCIATED WITH LATE PREGNANCY COMPLICATIONS** *Western Regional Meeting of the American-Federation-for-Medical-Research*
Ozen, M., Rivera, M., Saravanapandian, V., Palmer, T. D.
LIPPINCOTT WILLIAMS & WILKINS.2013: 191-91
- **The small heat shock protein alpha B-crystallin reveals a prominent role for astrogliosis in cuprizone-induced demyelination** *11th International Congress of Neuroimmunology (ISNI)*
Kuipers, H. F., Yoon, J., Vister, J., Palmer, T. D., Steinman, L.
ELSEVIER SCIENCE BV.2012: 64-64
- **The small heat shock protein Alpha B-Crystallin rescues oligodendrocyte progenitors from cuprizone-induced demyelination and promotes remyelination** *11th International Congress of Neuroimmunology (ISNI)*
Kuipers, H. F., Yoon, J., Vister, J., Palmer, T. D., Steinman, L.
ELSEVIER SCIENCE BV.2012: 128-29
- **Adult neural progenitor cells reactivate superbursting in mature neural networks** *EXPERIMENTAL NEUROLOGY*
Stephens, C. L., Toda, H., Palmer, T. D., DeMarse, T. B., Ormerod, B. K.
2012; 234 (1): 20-30
- **Team presentations from the Route 28 Summits in Neurobiology at the International Symposium on Neural Regeneration** *JOURNAL OF REHABILITATION RESEARCH AND DEVELOPMENT*
Palmer, T., Kusiak, A.

2012; 49 (10): VII-IX

- **Using iPSC-derived neurons to uncover cellular phenotypes associated with Timothy syndrome** *NATURE MEDICINE*
Pasca, S. P., Portmann, T., Voineagu, I., Yazawa, M., Shcheglovitov, A., Pasca, A. M., Cord, B., Palmer, T. D., Chikahisa, S., Nishino, S., Bernstein, J. A., Hallmayer, J., Geschwind, et al
2011; 17 (12): 1657-U176
- **SNCA Triplication Parkinson's Patient's iPSC-derived DA Neurons Accumulate alpha-Synuclein and Are Susceptible to Oxidative Stress** *PLOS ONE*
Byers, B., Cord, B., Ha Nam Nguyen, H. N., Schuele, B., Fenno, L., Lee, P. C., Deisseroth, K., Langston, J. W., Pera, R. R., Palmer, T. D.
2011; 6 (11)
- **The CCR2/CCL2 Interaction Mediates the Transendothelial Recruitment of Intravascularly Delivered Neural Stem Cells to the Ischemic Brain** *STROKE*
Andres, R. H., Choi, R., Pendharkar, A. V., Gaeta, X., Wang, N., Nathan, J. K., Chua, J. Y., Lee, S. W., Palmer, T. D., Steinberg, G. K., Guzman, R.
2011; 42 (10): 2923-U387
- **ALPHA B-CRYSTALLIN PLAYS DIFFERENTIAL ROLES IN CUPRIZONE-INDUCED DEMYELINATION AND REMYELINATION** *10th European Meeting on Glial Cells in Health and Disease*
Kuipers, H. F., Brownell, S., Kurnellas, M., Palmer, T., Steinman, L.
WILEY-BLACKWELL.2011: S142–S142
- **Placental TNF-alpha Signaling in Illness-Induced Complications of Pregnancy** *AMERICAN JOURNAL OF PATHOLOGY*
Carpentier, P. A., Dingman, A. L., Palmer, T. D.
2011; 178 (6): 2802-2810
- **Neural Stem/Progenitor Cells Are Targets for Natural Killer Cell-Mediated Killing** *American Transplant Congress*
Phillips, L. K., GOULD, E. A., Palmer, T. D., Krams, S. M., Martinez, O. M.
WILEY-BLACKWELL.2011: 439–439
- **Neural stem/progenitor cells are targets for natural killer cell-mediated killing**
Phillips, L., Gould, E., Palmer, T., Krams, S., Martinez, O.
AMER ASSOC IMMUNOLOGISTS.2011
- **MHC Mismatch Inhibits Neurogenesis and Neuron Maturation in Stem Cell Allografts** *PLOS ONE*
Chen, Z., Phillips, L. K., Gould, E., Campisi, J., Lee, S. W., Ormerod, B. K., Zwierzchoniewska, M., Martinez, O. M., Palmer, T. D.
2011; 6 (3)
- **LRRK2 mutant iPSC-derived DA neurons demonstrate increased susceptibility to oxidative stress.** *Cell stem cell*
Nguyen, H. N., Byers, B., Cord, B., Shcheglovitov, A., Byrne, J., Gujar, P., Kee, K., Schüle, B., Dolmetsch, R. E., Langston, W., Palmer, T. D., Pera, R. R.
2011; 8 (3): 267-280
- **LRRK2 Mutant iPSC-Derived DA Neurons Demonstrate Increased Susceptibility to Oxidative Stress** *CELL STEM CELL*
Ha Nam Nguyen, N. N., Byers, B., Cord, B., Shcheglovitov, A., Byrne, J., Gujar, P., Kee, K., Schuele, B., Dolmetsch, R. E., Langston, W., Palmer, T. D., Pera, R. R.
2011; 8 (3): 267-280
- **Transplanted Stem Cell-Secreted Vascular Endothelial Growth Factor Effects Poststroke Recovery, Inflammation, and Vascular Repair** *STEM CELLS*
Horie, N., Pereira, M. P., Niizuma, K., Sun, G., Keren-Gill, H., Encarnacion, A., Shamloo, M., Hamilton, S. A., Jiang, K., Huhn, S., Palmer, T. D., Bliss, T. M., Steinberg, et al
2011; 29 (2): 274-285
- **Transplanted Stem Cell-Secreted VEGF Effects Post-Stroke Recovery, Inflammation, and Vascular Repair.** *Stem cells (Dayton, Ohio)*
Horie, N., Pereira, M. P., Niizuma, K., Sun, G., Keren-Gill, H., Encarnacion, A., Shamloo, M., Hamilton, S. A., Jiang, K., Huhn, S., Palmer, T. D., Bliss, T. M., Steinberg, et al
2011
- **A protocol for isolation and enriched monolayer cultivation of neural precursor cells from mouse dentate gyrus.** *Frontiers in neuroscience*
Babu, H., Claassen, J., Kannan, S., Rünker, A. E., Palmer, T., Kempermann, G.
2011; 5: 89-?
- **Vacuum soft lithography to direct neuronal polarization** *SOFT MATTER*
Nevill, J. T., Mo, A., Cord, B. J., Palmer, T. D., Poo, M., Lee, L. P., Heilshorn, S. C.

2011; 7 (2): 343-347

● **A protocol for isolation and enriched monolayer cultivation of neural precursor cells from mouse dentate gyrus** *FRONTIERS IN NEUROSCIENCE*

Babu, H., Claasen, J., Kannan, S., Ruenker, A. E., Palmer, T., Kempermann, G.

2011; 5

● **PET imaging of cerebral ischemia-induced neuroinflammation in mice using F-18-PBR06**

Lartey, F. M., Ahn, G., Shen, B., Cord, K., Smith, T., Chua, J. Y., Rosenblum, S., Tirouvanziam, R., Palmer, T., Guzman, R., Chin, F. T., Graves, E., Loo, et al
WILEY-BLACKWELL.2011: S319-S319

● **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

● **Mitochondrial Protection Attenuates Inflammation-Induced Impairment of Neurogenesis In Vitro and In Vivo** *JOURNAL OF NEUROSCIENCE*

Voloboueva, L. A., Lee, S. W., Emery, J. F., Palmer, T. D., Giffard, R. G.

2010; 30 (37): 12242-12251

● **The Innate Immune Response Impairs Differentiation of Neural Progenitor Stem Cell Allografts** *10th American Transplant Congress*

Phillips, L., Gould, E., Palmer, T., Krams, S. S., Martinez, O. M.

WILEY-BLACKWELL.2010: 365-365

● **Murine Embryonic Stem Cell-Derived Pyramidal Neurons Integrate into the Cerebral Cortex and Appropriately Project Axons to Subcortical Targets** *JOURNAL OF NEUROSCIENCE*

Ideguchi, M., Palmer, T. D., Recht, L. D., Weimann, J. M.

2010; 30 (3): 894-904

● **FoxO3 Regulates Neural Stem Cell Homeostasis** *CELL STEM CELL*

Renault, V. M., Rafalski, V. A., Morgan, A. A., Salih, D. A., Brett, J. O., Webb, A. E., Villeda, S. A., Thekkat, P. U., Guillerey, C., Denko, N. C., Palmer, T. D., Bufte, A. J., Brunet, et al

2009; 5 (5): 527-539

● **Immune Influence on Adult Neural Stem Cell Regulation and Function** *NEURON*

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