

Clive Niels Svendsen

Curriculum Vitae

The Regenerative Medicine Institute, 8700 Beverly Blvd, AHSP, A8404, Los Angeles, CA 90048
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Education

- 1980-1983 Kings College, University of London, London, UK, B.SC. in Zoology
1989-1991 Jesus College, University of Cambridge, Cambridge, UK PhD,
Dissertation: "Regulation of cell death in basal forebrain cholinergic
neurons" *Supervisor: M.V.Sofroniew*

Professional Experience

- 1978 **Research Assistant.** Marine Biology Laboratory, Woods Hole, MA, USA.
Supervisor – Professor J. Lash
- 1979-1980 **Research Assistant.** Neurochemical Pharmacology Unit, Addenbrooke's
Hospital, Cambridge, England. *Supervisor – Dr. M.N. Rossor*
- 1989-1984 **Research Assistant.** Brain Tissue Resource Center Laboratory, McLean
Hospital/Harvard Medical School, 115 Mill Street, Belmont, MA 02178,
USA.
- 1984-1988 **Neurochemist.** Brain Tissue Resource Center Laboratory, McLean
Hospital/Harvard Medical School, 115 Mill Street, Belmont, MA 02178,
USA.
- 1988-1989 **Project Manager/Applications Specialist.** ESA Inc., 45 Wiggins Road,
Bedford, MA USA and Niko Bioscience, Nihonseimi Trade Centre Building
7-25-5. Nishigotanda, Shinagawa-ku, Tokyo 141, Japan.
- 1991-1992 **European Manager.** ESA Analytical Ltd, 7 Cromwell Mews, St. Ives,
Huntington, Cambs PE17 4HJ.
- 1992-1995 **Postdoctoral Research Fellow.** Department of Experimental Psychology,
University of Cambridge, Downing Street, Cambridge CB2 3EB. *Dr.
S.B.Dunnett's Laboratory.*
- 1995-1997 **Wellcome Career Development Research Fellow, Principle
Investigator.** MRC Centre for Brain Repair, University of Cambridge
Forview Site, Robinson Way, Cambridge.
- 1997-2000 **Wellcome Career Development Research Fellow, Principle
Investigator and Director of Training.** MRC Centre for Brain Repair,
University of Cambridge.
- 2000-2009 **Professor of Anatomy and Neurology.** University of Wisconsin-
Madison, WI.
- 2005-2010 **Director, NIH T32 Stem Cell Training Program.** University of Wisconsin-
Madison, WI.
- 2007-2009 **Co-Director, UW Stem Cell and Regenerative Medicine Center.**
University of Wisconsin-Madison, WI.
- 2007- **Consultant Professor,** Department of Neurosurgery, Stanford University,
CA.

- 2009- **Director**, Regenerative Medicine Institute, Cedars-Sinai Medical Center, CA.
2010- **Visiting Professor**, University of Wisconsin-Madison, WI.
2010- **Professor in Residence**, Department of Medicine, University of California, Los Angeles, CA

Professional Activities

Grant Reviews and Study Sections

- 1990- Wellcome Trust (UK)
1993- Medical Research Council (UK)
2000- NIH study section member (special emphasis panels and many hoc study section review sessions)
2000- Swedish Research Council (Sweden)
2000- Parkinson's Disease Society (UK)
2001- Michael J. Fox Foundation
2002- CNS Foundation
2003- The ALS Association
2004-2007 Singapore stem cell program review committee member
2005-2007 Elected to Grants Review Committee for the California Institute for Regenerative Medicine (ended 2007 due to conflict with new Consultant Professorship at Stanford)
2007-2010 Tri-Institutional Stem Cell Initiative (Cornell, USA)
2008-2012 NIH NSD=B study section member

Consultant

- 2004-2010 Brain Cells Inc, San Diego, CA
2009- Cellular Dynamics Inc, Madison, WI
2009- Promega Corporation, Madison, WI
2011- University of California, Irvine Institute for Memory Impairments and Neurological Disorders

Editorial Boards

- 2003- Neurobiology of Disease
2004- Experimental Neurology

Scientific Advisory Boards

- 2004- Children's Biological Solutions, Boston, MA, USA
2004- Bright Foundation, Brookfield, WI, USA
2005-2006 Regenerative Medicine, Singapore
2005-2007 Michael J. Fox Foundation, New York, NY, USA
2008- Genetics Policy Institute, Wellington, FL USA
2009-2010 WiCell Institute, Madison, WI, USA
2009- Institute of Medical Biology (IMB), Singapore
2010- CIRM scientific advisory panel
2011-2013 NIGMS section of Coriell Medical Institute
2014- Emulate Incorporated (Organ on a Chip Company)

Current Journal Reviewer

Nature
Science
Nature Neuroscience
Nature Biotechnology
Nature Medicine
Neuroscience
J. Neuroscience Research
J. Neurochemistry
PNAS
Experimental Neurology
Over 20 other journals at various times

Cedars Sinai Medical Center Professional Activities

2010- Medical Leadership Committee
2010- NIGMS Human Genetic Cell Repository Committee
2011- CSMC Graduate Program Executive Committee
2011- UCLA/CSMC NIH Clinical and Translational Science Institute Committee
2011- Department of Biomedical Sciences Executive Committee
2011- Research Task Force Review Committee (Chair)
In this role I have been responsible for reviewing all science at the medical center over a one year period.
2012- Head of Research Website Review Team
In this role I have been responsible for completely rebuilding and restructuring the CSMC Research website pages from the bottom up.
2013- Research Advisory Committee

University of Wisconsin Professional Activities (selected only from 2000 on)

2000-2005 Waisman Center Administrative Committee
2001-2002 Director of Waisman Center Animal Core
2001 Graduate School Search Committee for director of the Waisman Center
2002 Neurodegeneration Cluster Hire Search Committee
2004/2008 Stem Cell Cluster Hire Search Committee
2005- NIH T32 Neuroscience Training Program Steering Committee
2006- Obstetrics and Gynecology Search Committee for new chair
2006- UW Embryonic Stem Cell Research Oversight Committee (ESCRO)
2007-2008 UW Surgery Search Committee for new chair
2007- UW Stem Cell and Regenerative Medicine Executive Committee

Meeting Organizer

2001 **Neural Stem Cells: From Development to the Clinic.**
France, INSERM(Institute National de la Santé et de la Recherche Médicale).
2003 **Translating Stem Cells and Growth Factors into the Clinic for PD and ALS.**
Sponsored by the Department of Defense. UW-Madison, Madison, WI.
2005 **Stem Cells and Axonal Regeneration: Strategies for the Treatment of ALS.**
Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor.
2006 **First Annual Wisconsin Stem Cell Symposium: Neural Stem Cells.**
Promega at the BioPharmaceutical Technology Center, Madison, WI.

- 2007 **The Role of Glial Cells in Injury and Disease.**
Society for Neuroscience Meeting Symposium, San Diego, CA. Chair Speaker and Organizer.
- 2008 **Fourth World Stem Cell Summit.**
Madison, WI. Sponsor.
- 2008 **Third Annual Wisconsin Stem Cell Symposium: Development.**
Promega at the BioPharmaceutical Technology Center, Madison, WI.
- 2009 **Fourth Annual Wisconsin Stem Cell Symposium: Cancer Stem Cells.**
Promega at the BioPharmaceutical Technology Center, Madison, WI.
- 2010 **First Cedars-Sinai Regenerative Medicine Scientific Symposium.**
Cedars-Sinai Medical Center, Los Angeles, CA. Chair and Organizer.
- 2011 **Seventh World Stem Cell Summit.**
Pasadena, CA. Sponsor and Co-Organizer.
- 2012 **Second Cedars-Sinai Regenerative Medicine Scientific Symposium.**
Cedars-Sinai Medical Center, Los Angeles, CA. Chair and Organizer.
- 2013 **Cell Stem Cell Symposium.**
Cedars-Sinai Medical Center, Los Angeles, CA, *Need Role*

Honors and Awards

- 1995 Wellcome Research Fellowship Award
- 1996 Testified to British Government at the Houses of Commons on stem cell research.
- 1997 Elected as Director of the MRC Cambridge Brain Repair Centre Training Program
- 1998 London Sunday Times: Top 100 People of the next 10 years
- 2000 Ernest Finch Memorial Lecture Award Recipient
- 2002 Named "Zen of Stem" by Madison magazine
- 2004 Profiled by Nature Medicine
- 2005 Bernard Sanberg Memorial Award for Brain Repair
- 2006 Statuette award from The International Academy for Child Brain Development
- 2007 Founder and co-director of the UW Stem Cell and Regenerative Medicine Center
- 2009 Huntington's Disease Trailblazer Award, Huntington's Disease Society of America
- 2010 Shelia Essey Award from the American Academy of Neurology
- 2014 Kerry and Simone Vickar Family Foundation Distinguished Chair in Regenerative Medicine

Teaching Responsibilities

- 1989-1992** Supervision of 2nd year medical students in the Department of Anatomy, Cambridge University. Neuroanatomy practicums.
- 1990-1992** Supervision of 2nd year medical students at Emmanuelle College, Cambridge University for the Neurobiology course. Supervision of Part II Neuroscience projects.
- 1992-1994** Lecture Series in the Medical Aspects of Neurobiology course to 2nd year Cambridge medical students. Supervision of 2nd year medical students Part II projects (2 students per year).

- 1995-2000** External and internal examiner for PhD students. Supervisor for PhD and Part II students. Director of Training at the Brain Repair Center, University of Cambridge for five years.
- 2003-2010** Teaching courses at UW-Madison including Biocore 2003 and many individual lectures for different programs.
- 2005-2010** Establishment of new NIH Stem Cell training program at UW-Madison (Director). This is the USA's first national Stem Cell Training Program funded by the NIH. Involved faculty from UW and integrated all aspects of stem cell biology within a post-doctoral training program.
- 2006-2010** Establishment of new Stem Cell Biology course at UW-Madison. Course Director- *Fundamentals of Stem Cell Biology*. It covered basic stem cell science through to clinical trials and ethics.
 Founder and organizer of campus-wide stem cell lab meeting/journal club, which was attended weekly by nearly 100 faculty and researchers in the UW stem cell community.
- 2010-** Member of Graduate Program executive committee at Cedars-Sinai Medical Center.
- 2010-** Lecture series on Neuroscience for Cedars Sinai Medical Center graduate program.
- 2011-** Invited lecturer for the Cancer Summer School at Cedars Sinai Medical Center.
- 2011-** Lecture on Neuroscience for CSMC graduate program.

Research Training

PhD graduates from Svendsen Lab

- 1998** **Simon Sinclair** (Co-Supervisor – University of Cambridge)
Currently Medical doctor
- 2000** **Yu Tsu Tsai** (University of Cambridge)
Currently home management
Thor Ostefeld (University of Cambridge)
Currently Medical doctor and pharmaceutical consultant
Siddharthan Chandran (Co-Supervisor – University of Cambridge)
Currently Chair of Neurology at the University of Edinburgh
- 2001** **Rowan Burnstein** (University of Cambridge)
Currently Anesthetist at Addenbrook's Hospital, Cambridge
- 2003** **Borris Haupt** (Co-Supervisor – University of Wisconsin)
Currently scientist in Biotechnology company in London, England
- 2004** **Aaron Nelson** (University of Wisconsin)
Currently Director of Regulatory Affairs, Celsense Inc, PA
- 2005** **Hyung-Jung Kim** (University of Wisconsin)
Currently Post Doc at University of San Diego
- 2007** **Sandy Klein** (University of Wisconsin)
Currently Post-Doctorate at University of San Diego
- 2008-2009** **Narisorn Kitiyanant** (Mahidol University, Thailand)
Trainee 2008-2009
- 2014** **Ksenija Bujanovic** (Co-Supervisor – University of Wisconsin)
Melanie Das (Cedars-Sinai Graduate Program)

Current **Samuel Sances** (Cedars-Sinai Graduate Program)
Current Graduate Student

Former and Current Post Doctoral Scientist from Svendsen Lab

Maeve Caldwell (University of Cambridge)
Currently Lecturer at University of Bristol, UK

Janelle LeBelle (University of Cambridge)
Currently Assistant Professor at UCLA

Siddharthan Chandran (University of Cambridge)
Currently Chair of Neurology at the University of Edinburgh

Francesca Ciccolini (University of Cambridge)
Currently PI and Group Leader at the Max Plank Institute

Telma Schwindt (University of Wisconsin)
Currently Scientist at University of St Paulo, Brazil

Bernard Schneider (University of Wisconsin)
Currently senior scientist at EPFL, Switzerland

Soshana Behrstock (University of Wisconsin)
Currently Project Scientist at Cedars Sinai Medical Center

Anita Bhattacharyya (University of Wisconsin)
Currently Associate Scientist, University of Wisconsin-Madison

David Gamm (University of Wisconsin)
Currently Assistant Professor, University of Wisconsin-Madison

Fabin Han (University of Wisconsin)
Currently researcher at Johns Hopkins

Allison Ebert (University of Wisconsin)
Currently Assistant Professor, Medical College of Wisconsin

Tom Keenan (University of Wisconsin)
Currently Scientist II at Allen Institute for Brain Science

Jered McGivern (University of Wisconsin)
Currently Second post doc, Medical College of Wisconsin

Masatoshi Suzuki (University of Wisconsin)
Currently Assistant Professor, University of Wisconsin-Madison

Howon Kim (Cedars-Sinai Medical Center)
Currently Post-Doctoral Researcher

Dhruv Sareen (University of Wisconsin)
Currently Research Scientist I, Cedars-Sinai Medical Center
Director, iPSC Core, Cedars-Sinai Medical Center

Genevieve Gowing (University of Wisconsin)
Currently Project Scientist, Cedars-Sinai Medical Center

Virginia Mattis (University of Wisconsin)
Current Post-Doctoral Researcher, Cedars-Sinai Medical Center

Gretchen Miller (UCLA)
Current Post-Doctoral Researcher, Cedars-Sinai Medical Center

Pablo Avalos (University of Anahuac Norte, Mexico City)
Current Post-Doctoral Researcher, Cedars-Sinai Medical Center

Gad Vatine (Tel Aviv University)
Current Post-Doctoral Researcher, Cedars-Sinai Medical Center

Ritchie Ho

Current Post-Doctoral Researcher, Cedars-Sinai Medical Center

Wenjian Lv

Currently Post-Doctoral Researcher, Cedars-Sinai Medical Center

PhD Dissertation Committees

Aimee Ardoldussen
Jim Windelborn
Matthew Pankratz
Lisa Nashold
Jessica Drenzek
Cathy Rasmussen
Rachael Lovett-Barr
Keith Hanson
Elyse Bolterstein
David Gate (Thesis)
Nargess Hassanzedeh-Kiabi
I-Farn Lei
Mia Wibowo
Mitra Masteli
Tamar Eigler
Melanie Das
Ksenija Bernau
Samuel Sances
David Rushton
Irina Epifantseva

PhD Examinations

Served as external or internal examiner for 13 PhD dissertations.

Research Grant Support

Current Research Grant Support

- 1. Ljubimov (PI), Svendsen (Co-I) (08/01/2011 – 03/31/2016) NIH/NEI 5 R01 EY013431 \$1,824,334**
Mechanisms of Epithelial Alterations in Diabetic Cornea
Major goals: To change phenotypes of cultured stem cells in human diabetic corneas towards more normal ones using specific gene therapy with *c-met* overexpression and proteinase suppression, and transplant them back to diabetic corneas. Experiments will be conducted in human corneal organ cultures.
- 2. Svendsen (PI) (01/01/2012 – 12/31/2014) Smile Foundation \$438,000**
Induced Pluripotent Stem Cells From MCT-8 Patients
In this study we plan to produce an *in vivo* blood brain barrier (BBB) with cells carrying the MCT-8 mutation and see if transport across the BBB is affected.
- 3. Svendsen (PI), Thompson (PI) (04/01/2012 – 03/31/2014) NIH U24 1U24NS078370 \$140,907**

The HD iPSC Consortium: Repeat Length Dependent Phenotypes

This project continues our work developing novel and powerful models of Huntington's Disease (HD) a fatal neurodegenerative condition with no current treatment.

4. Svendsen (PI) (08/01/2012 – 07/31/2015) ALS Association LQLWE0 \$240,000

Here we propose combining the viral delivery of the growth factor glial cell line-derived neurotrophic factor to the muscles of SOD1G93A rat model of ALS with the transplantation of human neural progenitors/stem cells secreting potent neurotrophic factors or immunomodulatory molecules. The goal of the study is to find a combination with significant beneficial additive effects that can be translated to clinical trial. Moreover, the identification of a successful combination will lead to further studies by our group to identify drugs/compounds that would further enhance the therapeutic effect of our approach.

5. Svendsen (PI) (12/01/2012 – 11/30/2016) CIRM U24NS078370 \$111,012

CNS 10-NPC GDNF in ALS

This project will produce under GMP a line of neural progenitor/stem cells that are genetically modified to release a powerful growth factor (CNS10-NPC-GDNF), complete preclinical pharmacology/toxicology/tumorigenicity studies in both small and large animals, and complete a first in man Phase 1/2a combined stem cell and *ex vivo* gene therapy trial in ALS patients.

6. Svendsen (PI) (12/01/12 – 11/30/16) CIRM DR2A-05320 \$16,961,287

CNS 10-NPC GDNF in ALS

This project will produce under GMP a line of neural progenitor/stem cells that are genetically modified to release a powerful growth factor (CNS10-NPC-GDNF), complete preclinical pharmacology/toxicology/tumorigenicity studies in both small and large animals, and complete a first in man Phase 1/2a combined stem cell and *ex vivo* gene therapy trial in ALS patients.

7. Ljubimov (PI), Svendsen Co-I (06/01/2013 – 05/31/2016) NIH/NEI 1R01EY023429-01 \$244,776

Transplantable Limbal Cells From Induced Pluripotent Stem Cells

We propose to make human corneal epithelial cells from iPS cell lines derived from corneal limbal cell cultures. By using limbal cells that retain epigenetic memory as iPS source we expect to regenerate corneal cells more efficiently and reproducibly than before.

8. Svendsen (PI) (06/01/14-05/31/17) W81XWH-14-1-0189 Department of Defense (DOD) \$547,532

Muscle-derived GDNF: A gene therapeutic approach for preserving motor neuron function in ALS

Glial cell line-derived neurotrophic factor (GDNF) is a potent trophic molecule and can promote motor neuron survival *in vitro* and *in vivo*. This study will use a gene therapy approach to deliver GDNF to the muscle of rats. We aim to file an IND with the FDA by the end of this proposal.

- 9. Svendsen (PI) (07/01/2014 – 06/30/2015) Joseph Drown Foundation
Cedars-Sinai BOG Regenerative Medicine Institute/ Crohn's Disease Research
Fund
\$80,000**

The aim of this proposal is to generate induced pluripotent stem cells from inflammatory bowel disease (IBD) patients and direct these cells to form mini-intestines in a dish. These mini-intestines will be used to model IBD and such a model may ultimately reveal how genetics and various inflammatory agents play a role in the pathogenesis of this disease.

- 10. Svendsen (PI) (07/01/2014 – 06/30/2015) Joseph Drown Foundation
Cedars-Sinai BOG Regenerative Medicine Institute/ Parkinson's Disease
Research Fund
\$80,000**

Use induced pluripotent stem cells to develop a model of Parkinson's Disease.

- 11. Svendsen (PI) (09/01/2014 – 09/11/2015) 15333
California State University, Channel Islands
CIRM Bridges to Stem Cell Internship – Malika Singh
\$3,703**

To avoid technical complications (limited expansion, genetic aberrations etc.), ethical concerns associated with the use of fetal-derived cells but also enable autologous transplantation therapy, we propose the generation and characterization of neural progenitors derived from induced pluripotent stem cells (iPSCs).

- 12. Svendsen (PI) (09/01/2014 – 09/11/2015) 15334
California State University, Channel Islands
CIRM Bridges to Stem Cell Internship – Divya Suresh
\$3,703**

We will differentiate HD iPSC lines into striatal cultures and look (using immunocytochemistry, qRT-PCR and cell sorting analysis) at adult and progenitor neural markers over a 60+ day time course to assay for maturation of the cells. We may also use electrophysiology to assay for development of functional neurons from the progenitor stage.

- 13. Svendsen (PI) 10/01/2014 – 12/31/2014 Leandro P Rizzuto Foundation
\$69,565**

*Using Novel Imaging Agents as a Biomarker for ALS
Progression in the fALS Rat*

We will assess whether degeneration in both the motor cortex and spinal cord can be detected in the G93A preclinical animal model using novel MR and/or optical imaging agents developed at GE.

- 14. Svendsen (PI) 10/01/2014 – 06/30/2015 Leandro P Rizzuto Foundation
\$143,478**

Application of MultiOmyx to iPSC Models of ALS

The ability of cell systems including iPSC to recreate some of this complexity in vitro

presents both opportunities and challenges. More efficient and effective tools to deeply interrogate and analyze these systems will help accelerate the discovery of disease causes and treatments.

**15. Svendsen (PI) 11/01/2014 – 10/31/2016 University of Technology Sydney
\$148,414**

AHDS Patient-derived Induced Pluripotent Stem Cells

Provide a Disease in a Dish Model to Elucidate the Role of Mct8 in the Human Brain
We propose 4 specific aims in order to further understand of the mechanisms that underlie Mct8-deficiency, develop these iPSC-based platforms and establish molecule screens for the treatment of AHDS.

Past Research Grant Support

**16. Svendsen (PI) (4/01/95 – 9/30/00) Wellcome Trust Research Career
Development Award**

**17. Svendsen (PI) and Caldwell (9/99 – 8/02) Parkinson's Disease Society Medical
Research Grant**

*Human Neural Stem Cells as a Source of Tissue for Cell Therapy in Parkinson's
Disease*

**18. Chadran and Svendsen (Sponsor) (4/99 – 4/03) MRC Clinician Scientist
Fellowship**

*An In Vitro And In Vivo Study Of The Oligodendrocyte Lineage and Myelinating
Potential of Human Stem Cell Derived Oligodendrocytes*

19. Svendsen (PI) (6/01/02 – 5/31/03) FRAXA Research Foundation

Generating Human Neurons Carrying the Fragile X Mutation

20. Svendsen (PI) (4/01/03 – 12/31/04) CNS Foundation

Generation of Neural Stem Cells for Transplantation

21. Svendsen (PI) and Zhang (CoPI) (1/01/02 – 1/01/05) The ALS Association

Stem Cell Therapy for ALS

**22. Svendsen (PI) (1/01/05 – 1/06) Michael J. Fox Foundation for Parkinson's
Research**

*Comparison of Amgen Human Recombinant GDNF with Human Glycosylated
Neural Stem Cell Derived GDNF*

**23. Svendsen (PI) (3/01/02 – 7/05) Michael J. Fox Foundation for Parkinson's
Research**

Banking of Dopamine Neuronal Production from Human Neural Stem Cells

24. Svendsen (PI) (1/01/05 – 12/31/05) American Heart Association

*Using Genetically Modified Neural Stem Cells to Repair the Damaged Rat Brain of
Stroke*

**25. Zhang (PI) (1/01/05 – 1/01/07) Michael J. Fox Foundation for Parkinson's
Research**

*Combined Stem Cell Transplant and Growth Factor Therapy for Parkinson's Disease
Role: Co-Investigator*

26. Svendsen (PI) (8/31/06 – 8/31/08) Promega

*Combining Stem Cells and HaloTag Technology to Understand Inclusion Body
Formation in Huntington's Disease*

27. Svendsen (PI) (10/30/03 – 11/01/07) Sigma-Aldrich

Development of a Culture Medium for the Expansion of Human Fetal Neural Stem Cells in Neurospheres

- 28. Svendsen (PI) (7/20/04 – 7/20/08) Northwestern Mutual Foundation**
GDNF Production from Human Neural Stem Cells for Parkinson's Disease
- 29. Svendsen (PI) (1/04/06 – 09/31/07) Kinetics Foundation**
Regulatable GDNF Expression in Human Neural Stem Cells
- 30. Svendsen (PI), Mitchell (CoPI) (1/31/05 – 1/30/08) The ALS Association**
Combined Delivery of Growth Factors and Astrocytes as a Potential ALS Treatment
- 31. Svendsen (PI) (4/01/03 – 4/01/08) Department of Defense**
Regulated GDNF Delivery in Vivo using Neural Stem Cells
Aims to establish optimal ways to regulate growth factor release from human neural stem cells and use this in models of Parkinson's disease
- 32. Svendsen (PI) (1/08 – 1/30/10) The Packard Foundation**
Over expression of the glutamate transporter in human neural stem cells
Human neural stem cells will be modified to express the glutamate transporter linked to marker proteins.
- 33. Gamm (PI), Svendsen (Mentor) (2/01/04 – 1/31/09) K08 NIH**
Culture and transplantation of human retinal stem cells
- 34. Svendsen (PI) (6/01/02 – 1/01/2010). UW Madison Foundation**
University of Wisconsin ALS Fund
This private fund raised over 1M dollars of support for stem cells and ALS research in the Svendsen laboratory since 2002.
- 35. Gamm (PI) Lincy Grant (05/07 – 05/10)**
Stem cell banking for retinal disease
Role: Co-Investigator
- 36. Svendsen (PI) (1/01/09 – 1/01/11). Sigma Aldrich**
Zinc finger and iPS cell technologies for generating new human cell lines
This grant from Sigma allows us to generate new iPS cell lines using non-integrating lentiviral constructs from Sigma. It also provides access to the new zinc finger gene editing system developed by Sigma for genetically modifying human iPS cells.
- 37. Svendsen (PI) (2/01/07 – 1/31/11) High Q Foundation for Huntington's Disease**
Mouse Neural Stem Cells Secreting Growth Factors for Huntington's Disease
This project will transplant mouse neural stem cells secreting various growth factors into a mouse model of HD to establish any protective effects.
- 38. Svendsen (PI) (2/01/06 – indefinite) National Gene Vector Laboratories**
Production of clinical grade lentivirus for ex vivo gene therapy using human neural stem cells and toxicology studies on rodents
- 39. Svendsen (PI) (5/01/08 – 4/31/11) ALSA**
Using iPS cells to generate ALS patient specific stem cell lines
This grant will generate iPS cells from patients with ALS and determine their ability to make functional motor neurons *in vitro*.
- 40. Svendsen (PI) (5/01/05 – 5/01/10) T32 NIH/NIA**
Stem Cell Research Training Program
The first stem cell training program awarded by NIH. Aims to educate post-doctoral fellows in all aspects of stem cell biology.
- 41. Suzuki (PI), Svendsen (CoPI) (6/01/08 – 5/31/10) NIH/NINDS R21NS061049**
Stem cell therapy targeting skeletal muscles for ALS
Role: Co-Investigator

- 42. Svendsen (PI) (5/01/08 – 4/31/10) NIH/NINDS R21NS060047**
Directing the fate of stem cells with engineered gradients of FGF-2
Research grant to establish the importance of growth factor gradients for the differentiation of human stem cells.
- 43. Svendsen (PI) (03/01/08 – 02/28/11) ALSA1854 Award**
The ALS Association (ALSA)
Using iPS Cells to Generate ALS Patient Specific Stem Cell Lines
This study will generate iPS cells from patients with ALS and establish the survival and differentiation of motor neurons derived from them in culture.
- 44. Svendsen (PI) (7/01/07 – 6/30/12) NIH/NINDS P01NS57778-02**
Stem Cell and Growth Factor Therapy for ALS – Project 2
RO1 grant as part of the P01 to establish optimal conditions for the transplantation and survival of neural stem cells secreting growth factors in a rat model of ALS.
- 45. Svendsen (PI) (7/01/07 – 6/30/12) NIH/NINDS P01NS57778-02**
Stem Cell and Growth Factor Therapy for ALS – Project 2
RO1 grant as part of the P01 to establish optimal conditions for the transplantation and survival of neural stem cells secreting growth factors in a rat model of ALS.
- 46. Svendsen (PI) (09/01/2009-08/30/12) NIH/NINDS 1RC2NS069422-01**
The Huntington's iPS cell consortium
This group will look for specific deficits in iPS cells derived from Huntington's patients. Role: PI
- 47. Town (PI), Svendsen (Co-I) (09/15/2010 – 09/14/2013) CIRM RM1-01735**
\$300,000
Stem Cell Transplantation Immunology Award 13
Role of HLA in neural stem cell rejection using humanized mice. The primary goal of this stem cell transplantation immunology award is to explore neural stem cell transplant rejection using next-generation 'humanized' mouse models.
- 48. Svendsen (PI) (11/01/2012 – 02/28/2013) CG1-99043**
\$6,825
California Institute for Regenerative Medicine (CIRM)
California ALS Summit 2012
At this conference, 55 senior scientists and clinicians will meet to discuss the goals to be achieved and identify new directions for ALS research in California. Another important focus of the meeting is to further improve collaborations between outstanding ALS scientists within and outside of California.
- 49. Svendsen (PI) (7/01/10 – 6/30/13)**
\$75,000 Donation
Gold Key/PHR Hotels & Resorts
Funding used to supplement ongoing ALS research within the Svendsen's lab.
- 50. Svendsen (PI) (7/01/10 – 6/30/13)**
\$25,000 Donation
American Academy of Neurology Fund
Funding used to supplement ongoing ALS research within the Svendsen's lab.
- 51. RP1-05741 Svendsen (PI) (07/01/2013-06/30/2014) (CIRM)**
\$300,000
The HD iPSC Consortium: Repeat Length Dependent Phenotypes for Assay Development

Skin cells from patients with have been reprogrammed to pluripotency and then differentiated into specific neuronal and glial cell types. In this current proposal we are going to be the core that generates 15 new HD induced pluripotent stem cell lines and distributes them to the other investigators associated with this grant.

**52. Department of Defense, Boulis (PI), Svendsen (Co-I) (09/01/11 – 08/31/14)
Department of Defense W81XWH-11-1-0816
\$313,774**

Overcoming the Practical Barriers to Spinal Cord Cell Transplantation for ALS

This proposal will generate pig iPS cell lines and assess how neurons generated from them differentiate and survive transplantation when compared to non-autologous lines.

**53. Svendsen (PI) (09/01/2012 – 08/31/14) NIH/NIA 1RF1AG042951-01
\$412,500**

An iPS cells Diseases-in-a-dish Model of Familial Alzheimer's

The major goals of this project are to culture skin fibroblasts from individuals bearing mutations in genes that cause the early onset familial form of AD reprogram to iPS cells, and then differentiate them into forebrain neurons to generate a 'disease-in-a-dish' model of human familial AD.

**54. Svendsen (PI) (04/01/11 – 10/31/14) CIRM RT2-02040
\$1,933,022**

Use of iPS Cells (iPSCs) to Develop Novel Tools for the Treatment of Spinal Muscular Atrophy

This proposal will establish novel high content screening techniques to assess new drug discovery for spinal muscular atrophy iPS cells.

Publications/Bibliography

Books

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Patents

1. A new model of the blood brain barrier- patent applied for Jan 01, 2007
2. Human iPS cells derived from a spinal muscular atrophy patient - patent issued 2012. Patent number P09194US03. This patent covers any new drug discovery for SMA using motor neurons derived from iPS cells.

Public Awareness of Science

Numerous talks to lay public and media on Parkinson's Disease, ALS, Stem Cells, Gene Therapy and the Future of Medicine. Appeared on many TV and radio programs in the UK and USA discussing the ethics and biology of stem cells.

Editor of the Encyclopedia of Stem Cell Research. This is an extensive description of stem cell research for both scientists and non-scientists.

Organizes high school outreach event at Cedars-Sinai to educate and engage students in regenerative medicine.

Invited Lectures since 2004 *(over 50 invited lectures prior to 2004)*

2004

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|-------------|---|
| January 25 | Verbier, Switzerland – <i>10th Verbier Neural Workshop</i>
Human neural stem cells for ALS and PD: replacement vs protection |
| February 18 | Lexington, KY – <i>University of Kentucky</i>
Combining Stem Cell and Gene Therapy to Treat Neurological Disorders |
| March 12 | Chicago, IL – <i>University of Chicago</i>
Chicago SFM Chapter Meeting |
| April 23 | New York, NY – <i>Cornell University</i>
Combining Stem Cell and Gene Therapy to Treat Neurological Disorders |
| June 13 | Rome, Italy – <i>Eight International Congress on Parkinson's Disease and Movement Disorders</i>
Trophic Factors |
| June 17 | Wurzburg, Germany – <i>Strategies in Tissue Engineering</i>
Engineering Human Neural Stem Cells to Release Growth Factors for Neurological Diseases |
| June 27 | Terni, Italy – <i>Fourth International Congress on Genetics and Regeneration in Neuroscience</i>
GDNF as a Therapy for Parkinson's Disease |

- July 19 Thousand Oaks, CA – *Amgen*
Potential Use of Human Stem Cells to Deliver GDNF in Animal Models of PD and ALS
- September 16 Ames, IA – *Iowa State University Stem Cell Biology: Development and Plasticity Conference*
Combining Stem Cell and Gene Therapy as a Potential Treatment for ALS & PD
- December 2 Philadelphia, PA – *15th International Symposium on ALS/MND*
Prospects for Stem Cell Therapy in Neurodegenerative Disease
- 2005**
- January 26 Breckenridge, CO – *Winter Conference on Brain Research (WCBR)*
Cells, Genes or Machines: What's Best for Treating Parkinson's Disease?
- February 19 Irvine, CA – *University of California-Irvine & the Phillip and Carol Traub Parkinson's Disease Center (2 talks)*
Stem Cells and Trophic Factors as Potential Treatments of Parkinson's Disease
- February 27 Kohala Coast, HI – *Rachidian Society 13th Annual Meeting (2 talks)*
Prospects of Stem Cell Therapy in Neurodegenerative Disease and GDNF Delivery Using Human Progenitor Cells in a Rat Model of ALS
- March 4 Palo Alto, CA – *Stanford University & PD Community Outreach (2 talks)*
Pumps, Genes and Stem Cells to Deliver GDNF for ALS & PD and GDNF Studies and Fetal Stem Cells as Delivery Vehicles
- March 5 Madison, WI – *Ninth Annual Parkinson's Disease & Movement Disorders Meeting (2 talks)*
Trophic Factor Delivery Using Pumps and Catheters is Not Viable as a Treatment for Parkinson's Disease and Stem Cells Are the Future for the Treatment of Parkinson's Disease
- March 17 London, UK – *Eisai Annual Symposium*
GDNF Secreting Stem Cells for Parkinson's Disease and ALS
- May 18 Minneapolis, MN – *University of Minnesota Stem Cell Institute Seminar*
Stem Cells for Modeling and Treating Human Neurological Diseases
- May 19 Cincinnati, OH – *University of Cincinnati Neuroscience Program*
Stem Cells for Modeling and Treating Human Neurological Diseases
- May 21 Seattle, WA – *American Society of Transplantation*
Cell Transplantation for Neurological Disorders
- August 26 Bogotá, Columbia – *Actual Trends in Medicine Symposium*
Stem-Cell Transplantation-State of the Art
- November 10 Washington, DC – *Ninth International Symposium of Parkinson Research (NPF)*
Neurogenesis and Stem Cells
- December 17 Ghent, Belgium – *Belgian Neurological Society*

Combining Stem Cell Factor Therapy for Parkinson's Disease and ALS

2006

- January 30 Washington, DC – *NIC Neuroscience Series Seminar*
Combining Stem Cell and Gene Therapy for Neurological Diseases
- February 25 Washington, DC – *World Parkinson's Congress*
The Future of Stem Cell Therapy
- April 24 Washington, DC – *FightSMA Annual Meeting*
State of Stem Cell Research
- April 25 Madison, WI – *Laboratory Robotics Interest Group: Automation & Stem Cells*
History and Progress of Stem Cell Research
- April 30 Ft. Lauderdale, FL – *The Association for Research in Vision and Ophthalmology Annual Meeting (ARVO)*
Ethical and Regulatory Issues in Bringing Stem Cells to the Clinic for Diseases of the Eye
- May 5 Philadelphia, PA – *51st World Organization Meeting (Achievement of Human Potential)*
Stem Cells and Brain Injury: Hype vs Hope
- May 19 Minneapolis, MN – *International Association of Rehabilitation Professionals 26th Annual Conference*
Stem Cells and the Future of Medicine
- May 21 Durham, NC – *Society for Neurological Surgeons*
Stem Cell Transplantation in ALS
- June 15 Lexington, KY – *Kentucky Spinal Cord and Head Injury Research Trust*
Combining Stem Cells and Gene Therapy for ALS
- September 8 Québec City, Québec – *ALS Symposium of the Adre-Delanbre Foundation*
Combining Growth Factor and Stem Cell Therapy for ALS
- September 19 Milwaukee, WI – *1246th Meeting Milwaukee Academy of Medicine*
Stem Cells: The Hype, the Reality, and the Promise
- November 7 Washington, DC – *National Academy of Sciences Emerging Issues in Human ES Cells Research Symposium*
Chimeras: New and Anticipated Scientific Advances
- November 17 Dallas, TX – *Gerontological Society of America (2 talks)*
Translational Research in Nonhuman Primate Models of Parkinson's Disease and Neurodegenerative Diseases, Genetic Risk, and Biotherapies.

2007

- January 27 Milwaukee, WI – *Stem Cell Research Update and Multiple Sclerosis*
Stem Cell Research as it Relates to MS
- February 23 Bangkok, Thailand – *Wisconsin Alumni Thailand Foundation and Bangkok International Hospital*
Human Embryonic Stem Cells for Heart Disease and Neurological Disorders: Where Are We Now?

- March 16 Wake Forest, NC
Human Stem Cells to Treat Diseases of the Nervous System
- April 5 Milwaukee, WI – *Medical College of Wisconsin*
Combining Stem Cell and Gene Therapy for Treating Diseases of the Nervous System
- April 18 Lexington, KY – *Lexington Conference: Translational Neuroscience*
Stem Cell Delivery of Trophic Factors
- May 4 Clearwater Beach, FL – *13th Annual ASNTR Conference*
Translational Neuroscience
- May 15 Ann Arbor, MI – *Stem Cells & Aging: Balancing Regeneration and Cancer*
Embryonic, Fetal and Adult Stem Cells for Brain Repair: With Great Power Comes Great Responsibility
- June 1 Boston, MA – *Stem Cells & CNS Regeneration*
Neural Stem Cells as Therapeutic Vectors in ALS
- July 13 Sheffield, UK – *Human Embryonic Stem Cells*
Progress Towards Cell Therapies
- July 16 Edinburgh, Scotland
Stem Cell Therapy for Parkinson's Disease and ALS
- August 20 Madison, WI – *International Society of Psychoneuroendocrinology (ISPNE)*
Stem Cells, Plasticity and the Brain
- September 6 La Ciotat, France – *Sixth INMED/TINS Conference*
Gene & Cell Therapy: How do we go forward?
- October 22 Chicago, IL – *Children's Memorial Research Center*
Neural Repair Club Talk
- November 5 San Diego, CA – *Society for Neuroscience Annual meeting*
Combining Stem Cell and Growth Factor Therapy for ALS: Where are We Now?
- November 7 San Diego, CA – *Society for Neuroscience Annual meeting*
Normal Stem Cells of the CNS and Other CNS Biology
- 2008**
- January 11 Atlanta, GA – *Emory University*
Combining Gene and Stem Cell Therapy for Neurological Diseases
- January 16 Tampa Bay, FL – *Accelerating ALS Research: Translating Basic Discoveries into Therapies for ALS*
Stem Cell Approaches
- March 8 Amelia Island, FL – *2009 Wisconsin Weekend Away*
Stem Cells and the New Regenerative Medicine for Patients: Hype of Hope?
- April 5 Baltimore, MD – *Annual Robert Packard Center for ALS Research Symposium*
Adult Stem Cells Releasing GDNF Delay Disease Onset in the ALS Rat
- April 22 Wausau, WI – *The Central Wisconsin Ethics of Stem Cell Research Conference*

- Stem Cell Research and the Treatment of Neurodegenerative Disorders**
- April 23 Minneapolis, MN – *2008 ALS Association – Minnesota Chapter*
Combined Delivery of Growth Factors and Astrocytes as a Potential Treatment for ALS
- May 6 Bethesda, MA – *NIH Challenges and Promises of Cell-Based Therapy*
Combining Stem Cell and Gene Therapy for Neurological Disorders
- May 9 Charlotte, NC – *2008 Parkinson's Disease Foundation "What's in the PD Pipeline"*
Stem Cells and Gene Therapy for Parkinson's Disease: Is the Cure on the Horizon?
- May 10 Brookfield, WI – *Wisconsin Chapter ALS Association*
Recent Developments in Using Stem Cells to Treat ALS
- May 18 Madison, WI – *Society of Neurological Surgeons Annual Meeting*
Basic Science Synergy: Stem Cell in the CNS
- May 20 Miami, FL – *International Society for Cellular Therapy 2008 Annual Meeting*
Cutting Edge Research and Future Directions
- May 29 Boston, MA – *American Society of Gene Therapy 11th Annual Meeting*
Using Stem Cells to Deliver Growth Factors in Neurodegenerative Diseases
- June 22 Chicago, IL – *MDS 12th International Congress of Parkinson's Disease*
Hot Topics in Experimental Therapeutics for Parkinson's Disease
- September 25 Montreal, Quebec – *Fourth Annual Symposium on ALS Foundation Andre-Delambre*
- October 7 New York, NY – *Columbia Medical Center: Human Stem Cells and ALS*
- October 9 Marshfield, WI – *Genetics: In the Service of Humanity*
- October 11 Irvine, CA – *Stem Cell Research & Parkinson's Disease Symposium*
- October 25 Wisconsin Dells, WI – *Wisconsin Neurological Society Annual Meeting*
Combining Stem Cell and Gene Therapy for Neurological Disorders
- November 5 Birmingham, UK – *19th International Symposium on ALS/MND*
- December 15 Los Angeles, CA – *CHDI Workshop*
Induced Pluripotent Stem Cells in Huntington's Disease Research
- 2009**
- January 25 Las Vegas, CA – *MDA National Clinic Directors' Conference*
Stem Cell Therapy
- January 30 Houston, TX – *Hervey Lecture Program -- Parkinson's Disease lecture as part of Grand Rounds*
Treating and Modeling Parkinson's Disease Using Stem Cells
- April 26 Washington, DC – *Fight SMA Annual Conference*
Biology and Clinical Application of Stem Cells to Motor Neuron Disease

- April 28 Seattle, WA – *American Academy of Neurology*
Induced Pluripotent Stem Cells (iPSCs) from a Patient with Spinal Muscular Atrophy: Implication for Neurology
- May 2 San Diego, CA – *International Society for Cellular Therapy (ISCT) Symposium*
Translation of Stem Cell Therapies: Best Practices and Regulatory Considerations
- May 9 Toronto, ON – *ALS Society of Canada 5th Annual ALS Research Forum*
Development of Stem Cell and Gene Therapies to Treat ALS
- May 10 Washington, DC – *ALS Associations 2009 National Advocacy Day*
Stem Cell Research Update
- May 11 Washington DC – *NIH Stem Cell Seminar Series*
Modeling and Treating Neurological Diseases with Stem Cells

2010

- September 28 San Francisco, CA – *2nd Annual Symposium on Stem Cell Translation*
- October 4 Cambridge, MA – *ALS TDI Leadership Summit*
- October 18 Cold Spring Harbor, NY – *Recent Advances in ALS Research & Drug Discovery*
- November 18 San Francisco, CA – *CIRM iPS Cell Banking Workshop*
- December 1 La Jolla, CA – *Translational Research Seminar Series*
Modeling and Treating Neurological Diseases with Stem Cells
- December 16 Washington, DC – *HD iPS Cell Consortium*

2011

- January 12 San Francisco, CA - *Advisory Committee*
- January 20 Irvine, CA – *UC, Irvine Seminar*
- January 25 Farmington, CT – *UConn Health Center*
Stem Cells for Treating and Modeling Neurological Disorders
- January 26 New York, NY – *ICSCN Workshop on Progress Towards Clinical Trials Using Stem Cells for ALS/MND*
- February 3-5 Las Vegas, NV – *10th Annual Symposium on Current Concepts in Spinal Disorders*
- February 7-9 Palm Springs, CA – *6th Annual Huntington's Disease Therapeutics Conference*
- April 15 Honolulu, HI – *Stem Cell/Neuroscience*
- September 14 San Francisco, CA – *CIRM Grant Meeting*
- September 22 Bethesda, MD – *NIGMS Repository Meeting*
- September 23 General de Montcalm, Quebec – *Symposium on ALS*
Human stem cells increase respiratory output in the S0D1 G93A rat model of ALS
- October 3-5 Pasadena, CA – *World Stem Cell Summit*
Stem Cells for Modeling Neurological Disorders
- October 12 New York, NY – *Sixth Annual Translational Stem Cell Research Conference*
- October 24 Indian Wells, CA – *MCT8 Symposium*
- November 4 Lafayette, CA – *ALS Consortium Meeting*

2012

- February 2 San Francisco, CA – *The J. David Gladstone Institute*
Astrocytes from Stem Cells: A New Way of Treating Neurological Disease
- March 4 Washington, DC – Drug Discovery Workshop
Stem cell approaches
- March 8 Baltimore, MD – *Packard Center 2012 Annual Symposium*
A Combined Gene & Stem Cell Treatment for ALS
- March 15 Santa Barbara, CA – Medicine in Motion Conference
Stem Cells: Today's Trojan Horse to treat Lou Gehrig's Disease (ALS)
- March 29-30 Washington, DC – *U24 NGA Workshop*
- May 9 Cardiff, UK – *Cardiff School of Biosciences Plenary Lecture Series*
The use of iPS cells to model neurological diseases
- June 28 San Francisco, CA – *NSD Meeting*
- July 10-11 Washington, DC – *NIH-FDA Stem Cell Meeting*
Effects of disease in pivotal safety evaluation
- July 26 San Francisco, CA – *CIRM Meeting*
- August 2 Cambridge, MA – *The Milton Wexler Celebration of Life*
- September 28 Bethesda, MD – *MIGMS HIGCR SAC Meeting*
- October 3 Milwaukee, WI – *Cell Biology, Neurobiology and Anatomy Department Seminar*
- December 3-5 San Francisco, CA – *CIRM United Kingdom House of Lords, Science and Technology Committee*
Models for Translation through Industry-Academic Relationships, Including Collaborations, Spin-Offs and Licensing: Perspectives on the State of RM Science

2013

- January 9-10 Los Angeles, CA – *2013 MCT8 Symposium*
Generating induced pluripotent stem cells from AHDS patients and assay screening
- March 21-22 San Francisco, CA – *CIRM Parkinson Workshop*
Using neural progenitor cells to deliver GDNF for PD: Lessons from ALS and a new GMP grade line
- April 11 Ames, IA – *Stupka Undergrad Symposium*
- May 22-23 New York City, NY – *NYSTEM, Keynote Speaker*
Stem cells to treat human diseases: Hype or Hope?
- May 29-31 Edinburgh, UK – *The Clinical Science of Regenerative Neurology*
- June 1-2 Sheffield, UK – *ENCALS*
- June 25-27 Waterville Valley, NH – *Gordon Research Conference*
“Modeling repeat disorders using induced pluripotent stem cells: Lessons from HD and ALS”
- June 28 New Orleans, LA – *Team Gleason ALS Summit*
iPS cells, Disease Mechanism and Drug Discovery
- July 11-12 Sonoma, CA – *National Science Foundation*

The Interface of Stem Cell Technology with the Applications of the Future

- July 23-34 Arlington, VA – *DARPA/NIH 6-Month Review Meeting*
Advances in stem cell differentiation
- August 14 Washington, DC – *NIH/NINDS EUREKA Meeting*
 Grants Review
- September 26 Boston, MA – *WYSS Institute*
 Open Discussion on Organs-on-Chip team
- September 27 Bethesda, MD – *NIGMS Human Genetic Cell Repository Scientific Advisory Committee Meeting*
- October 9 Baltimore, MD - *IPS Cell Drug Discovery Strategic Working Group Meeting*
- November 7-13 San Diego, CA – *23rd Neuropharmacology Conference*
Modeling amyotrophic lateral sclerosis (ALS) and Huntington’s Disease (HD) using iPS cells
- November 8 San Diego, CA – *Neurobiology of Disease Workshop*
Modeling Neurodegenerative Disease
- November 21-23 Los Angeles, CA – *Cell Stem Cell Symposium*
Using iPS cells to both model and treat motor neuron diseases
- December 6 Los Angeles, CA – *UCLA Neural Repair Seminars*
Neural repair and disease modeling using induced pluripotent stem cells

2014

- January 6-7 Bethesda, MD – *NINDS “Research Challenges and Opportunities for Parkinson’s Disease”*
Modeling Parkinson’s Disease Pathways: Forward and Reverse Translation
- January 8 Madison, WI – *Neural Regeneration Seminar Speaker*
- January 10-11 Fresno, CA – *2014 PAC 10/ALS Research Summit Conference*
From bench to bedside – where are we?
- January 14 Los Angeles, CA – *Cedars Sinai Board of Governors Young Presidents Organization*
Regenerative Medicine: Leading us into the Future
- January 21 Los Angeles, CA – *Board of Governors Annual Meeting, Keynote Speaker*
Regenerative Medicine: Leading us into the Future
- January 22 Los Angeles, CA – *Cedars Sinai Alumni Association, Keynote Speaker*
- January 23-24 Washington DC – *NIH iPS Cell Meeting*
NINDS HD iPSC Consortium Update; How to Mature a Neuron in a Dish; and C9ORF72 Phenotypes
- February 22 Pasadena, CA – *The James R. Klinenberg, MD Symposium on Rheumatic Diseases: Hot Topics in Rheumatology, Keynote Speaker*
Is Stem Cell Research Ready to Treat Human Disease?
- February 28 Irvine, CA – *University of Irvine, California Seminar Series Speaker:*
iPS Cells and Regenerative Medicine: Translation to the Clinic
- March 9 Long Beach, CA – *ASN 2014 Colloquium: American Society for Neurochemistry*

- Induced Pluripotent Stem Cells as a Source of Astrocytes for Treating ALS**
April 6-10 Squaw Creek, Olympic Valley, CA – *2014 Keystone Symposia on Stem Cells and Reprogramming*
- iPS Modeling of Spinal Muscular Atrophy**
April 16 Houston, TX – *Houston Methodist Neurological Institute, speaker and panelist*
- Stem Cells for Neurological Diseases**
June 10 San Francisco, CA – *UCSF 2014 Jonah Platt Stem Cell Lecture Series, speaker*
- Modeling neurological diseases using iPSC's. Are we ready for "big data"?**
June 23 Silver Spring, Maryland - *ACTTION Scientific Workshop: Transformative Strategies for the Development of New Pain Therapies, panelist*
- The role of aging in neurodegenerative diseases**
June 27 San Francisco, CA – *Stanford University Research Seminar Series, speaker*
- ALS trials with Neural Stem Cell transplantation**
July 7 San Francisco, CA – *CIRM Immune Tolerance Mini-Symposium, speaker*
- iPS Collection**
July 14 Baltimore, MD – *ALS iPSC Personalized Therapeutics Discovery and Big Data Meeting, speaker*
- Towards a combined Stem Cell and Gene Therapy Trial for ALS: Trying to Launch a Moon Shot**
July 29 San Francisco, CA – *CIRM Bridges Meeting, Keynote Speaker*
- Cellular Dynamics**
October 8 La Jolla, CA – *Stem Cells Meeting on the Mesa, speaker*
- Overview of workshop, Discussion Panel Personalized IPS stem cell approaches for ALS, Lead Round Table Discussion Co-ordination and opportunities for IPSC studies**
October 19 Philadelphia, PA – *ALSA Investigator Workshop, speaker*
- The Patient Perspective**
November 20 Palo Alto, CA – *CHI Annual Meeting, speaker*
- Neural Tissue Interactions and Stem Cells**
November 20-22 Los Angeles, CA – *Regenerative Medicine Symposium, chair, organizer*
- Big Data and the need for enhanced motor neuron protocols**
December 17 Herndon, VA – *The ALS Association Human Motor Neuron Differentiation Workshop, speaker*
- 2015**
- NINDS Consortium – Accomplishments, Lessons Learned, & Opportunities Summary**
January 8 Princeton, NJ – *CHDI Stem Cell Platform Conference, speaker*
- Studying the role of Monocarboxylate transporter 8 (Mct8) in the transport of thyroid hormones (THs) across the human blood**
January 13 Los Angeles, CA – *MCT8 Symposium 2015, speaker*

- brain barrier (BBB) using an induced pluripotent stem cell (iPSC)-based system**
- January 19 Mexico City, Mexico – *Instituto de Investigaciones Biomedicas, speaker*
- January 30 **Using stem cells to model and treat human aging and disease**
San Francisco, CA – *ALS PAC 10 and Research Network Meeting, chair, panelist*
- February 6 Singapore – *Innovations in Medicine Event, speaker*
- February 10 **Innovations in Regenerative Medicine**
Los Angeles, CA – *ALS Webinar, speaker*
- February 26 **Induced pluripotent stem cells to model and treat ALS: A new ALS Association Funded Core Facility at Cedars-Sinai**
Baltimore, MD – *Packard Center ALS Research Symposium, keynote speaker*
- March 5 **Using induced pluripotent stem cells to model and treat ALS: Hype or Hope?**
Chicago, IL – *Organs-on-Chips Scientific Symposium, keynote speaker*
- March 24 **Using Stem Cells in Organs-on-Chips to make advancements in personalized health.**
San Diego, CA – *Society of Toxicology, speaker*
- April 12 **In Vitro Microphysiological Systems - Developing Confidence in Predictive Ability**
Edinburgh, Scotland – *Annual BNA Festival of Neuroscience, speaker*
- April 16 **Modeling and treating human diseases using induced pluripotent stem cells**
Sheffield, UK – *SITraN, Sheffield Institute for Translational Neuroscience, speaker*
- April 17 **Modeling and treating human diseases using induced pluripotent stem cells**
Cambridge, UK – *Wellcome Trust – Medical Research Council, Cambridge Stem Cell Institute, speaker*