CURRICULUM VITAE

EVAN YALE SNYDER, M.D., PH.D., F.A.A.P

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University of California-San Diego (UCSD)
Sanford (San Diego) Consortium for Regenerative Medicine (SCRM)

Professor
Founding Director, Center for Stem Cells & Regenerative Medicine, *SBP*
Founding Director, Stem Cell Research Center & Core Facility, *SBP*
Founding Member, Scientific Steering Committee, *SCRM*
Founding Director, Richmond Family Laboratory for Research into Pediatric Brain Disorders, *SBP*
Human Genetics Program, *SBP*
Sanford Children's Health Research Center, *SBP*
Aging, Immunity, & Tumor Microenvironment Program, *SBP*
Center for Genetic Disorders & Aging Research, *SBP*
Director & Co-Founder, Stem Cell Training Program, *SBP*
Physician (Pediatrician, Pediatric Neurologist, Neonatologist) (*SBP, UCSD)*
Biomedical Sciences Graduate Program, *UCSD* – Genetics & Genomics Track
Steering Committee, Medical Scientist Training Program (MSTP) (MD-PhD Program), *UCSD*

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EDUCATION:

1973 B.A.	*University of Pennsylvania*, Philadelphia, PA (*Summa cum laude*; *Phi Beta Kappa;* Highest Honors, Psychology)
1974	*Oxford University*, Oxford, U.K. (M.Sc. Program in Psychology)
1974	Linguistics Institute of the Linguistics Society of America, Amherst, MA
1980 M.D.	*University of Pennsylvania School of Medicine*, Philadelphia, PA
1980 Ph.D.	*University of Pennsylvania*, Philadelphia, PA (Graduate Committee of Anatomy [Neuroscience]) (awardee, *Medical Scientist Training Program [MSTP]*, MD-PhD program, National Institutes of Health [NIH])
1980-1989	Postgraduate Medical Training, *Harvard Medical School*, Boston, MA.
1985-1991	Post-doctoral Research Training, Dept. of Genetics, *Harvard Medical School*, Boston, MA
2019 Diploma	Health Leadership Academy, *University of California-San Diego*, San Diego CA

INTERNSHIPS & RESIDENCIES:

1980-83	Resident in Pediatrics *Children's Hospital-Boston*, *Harvard Medical School*, Boston, MA (Chief: Mary Ellen Avery)
1983-84, 1986-87	Resident in Neurology (Pediatric Neurology) *Harvard Longwood Neurology Training Program*, *Harvard Medical School*, Boston, MA (Chief: Charles F. Barlow)
1984-85	Chief Medical Resident, *Children's Hospital-Boston*, *Harvard Medical School*, Boston, MA (Physicians-in-Chief: Mary Ellen Avery, David G. Nathan)
1987	Chief Neurology Resident, *Children's Hospital-Boston* *Harvard Medical School*, Boston, MA (Neurologist-in-Chief: Charles F. Barlow)

FELLOWSHIPS:

1985-86; 1988-91	Clinical Fellow & Junior Attending in Medicine (Neonatology, Newborn Intensive Care), Joint Program in Neonatology, *Children's Hospital-Boston*, *Harvard Medical School*, Boston, MA (Chiefs: Michael F. Epstein, Merton Bernfield)
1985-91	Postdoctoral Research Fellow Department of Genetics, *Harvard Medical School*, Boston, MA (Chairman: Phillip Leder; Advisor: Constance L. Cepko) ***[Concurrent with Clinical Residencies, Fellowships, & Attending Position]***

ACADEMIC APPOINTMENTS & POSITIONS:

1984-85	Chief Medical Resident, *Children's Hospital-Boston*; Instructor, *Harvard Medical Schoo*l, Dept. of Pediatrics, Boston, MA
1985-89	Fellow, Dept. of Pediatrics (Neonatology); Resident (equivalent to Pediatric Fellowship) Dept. of Neurology, *Children's Hospital-Boston*, *Harvard Medical School*, Boston MA
1989-2003-	Faculty (Attending) Physician in Pediatrics (Neonatology) & Neurology *Joint Program in Neonatology, Medicine, Children's Hospital-Boston* *Dept. of Neurology, Children's Hospital-Boston* *Harvard Medical School, Boston MA*
1992-1995	Instructor in Neurology (Neonatology) Depts. of Neurology & Pediatrics, *Harvard Medical School (HMS), Boston MA* ***[Independent Laboratory Established]***
1996-2003	Assistant Professor in Neurology (Neonatology) Depts. of Neurology, Pediatrics, & Neurosurgery, *Harvard Medical School, Boston*
2003-present	Professor Human Genetics Program, *SBP* Founding Director, Program in Stem Cell & Regenerative Biology, now called Center for Stem Cells & Regenerative Medicine, *SBP* Founding Director, Stem Cell Research Center & Stem Cell Core Facility, *SBP* Director & Co-Founder, Stem Cell Training Program, *SBP*

Founding Member, Center Leadership Team, Del E. Webb Center for Neuroscience, Stem Cells, & Aging, *SBP*
Sanford Burnham Prebys Leadership Team, SBP (committee absorbed into SPAG)
Sanford Burnham Prebys Scientific Program Advisory Group (SPAG) *(SBP)*
Sanford Burnham Prebys (SBP) Medical Discovery Institute, La Jolla CA
Molecular Pathology Graduate Program, University of California, San Diego (UCSD) (program dissolved 2009)
Biomedical Sciences Graduate Program, University of California, Dan Diego (UCSD)
Founding Director, *Southern California Stem Cell Consortium*
Founding Member, Scientific Steering (& Leadership) Committee, *San Diego (Sanford) Consortium for Regenerative Medicine (SCRM)*
Physician (Pediatrician, Pediatric Neurologist, Neonatologist) *(SBP)*
Director, Basic Science Training, Div. of Neonatology, Dept. of Pediatrics (2003-12)
Biomedical Sciences Graduate Program *(UCSD)*
Genetics & Genomics Track
Neurobiology of Disease Training Area
Pharmacology Training Program
Scientific Advisory Board & Steering Committee; also admissions committee, Medical Scientist Training Program (MSTP) *(UCSD)*

2008-present Professor, Sanford Child Health Research Center, *SBP*

2009-2021 Adjunct Professor, Dept. of Pediatrics, *University of South Dakota Sanford School of Medicine*

2020-present Physician, *California Medical Assistance Team / Emergency Medical Services Authority*

2021-present Adjunct Professor, Department Biology, *San Diego State University (SDSU)*, San Diego CA

LICENSES & CERTIFICATION:

1981 Diplomate, National Board of Medical Examiners (#200864)
1985 Board certified in General Pediatrics, American Board of Pediatrics (#32143) (lifelong)
1986 Permanent licensure, Registry of Medicine, Massachusetts (#55687)
1989-pesent Federal Drug Enforcement Administration (DEA) Controlled Substances Registration (#BS1837319) (Schedules 2, 2N, 3, 3N, 4, 5)
1989-present Commonwealth of Massachusetts Controlled Substances Registration (#MS 0405363) (Schedules 2, 3, 4, 5, 6)
1989-present National Provider Identification (NPI): #1629187323
1992 Board Certified in Neurology With Special Qualification in Child Neurology, American Board of Psychiatry & Neurology (#300853) (lifelong)
1993 Board Certified, Sub-Board in Perinatal-Neonatal Medicine (newborn critical care) (re-certified 2019) American Board of Pediatrics (#002737)
2003-present Permanent licensure, Registry of Medicine, California (#G86951)
2007-present Fellow of the American Academy of Pediatrics (#331618)
[(i) Section on Neonatal-Perinatal Medicine; (ii) Section on Neurology; (iii) Section on Advances in Therapeutics & Technology]
2020-present California Medical Assistance Team / Emergency Medical Services Authority

HOSPITAL APPOINTMENTS:

1989-2004 Assistant in Medicine (Newborn Medicine), Children's Hospital, Boston, MA
1989-2004 Neonatologist, Brigham & Women's Hospital, Boston, MA
1989-2004 Pediatrician, Beth Israel Hospital, Boston, MA
1992-2003 Pediatrician, Winchester Hospital, Winchester, MA

1992-2001	Assistant in Neurology (Neuroscience), Children's Hospital, Boston, MA
1997-2003	Pediatrician, Beverly Hospital, Beverly, MA
1998-2003	Pediatrician, South Shore Hospital, South Weymouth, MA
1998-2001	Assistant in Neurosurgery (Neuroscience Research), Children's Hospital, Boston, MA
2001-2003	Assistant in Neurology (Neuroscience Research), Beth Israel-Deaconess Medical Center (BIDMC), Boston MA
2003-2019	Faculty Physician (Neonatologist & Neurologist), UCSD, San Diego CA
2004-present	Neonatologist & Pediatric Neurologist, Rady Children's Hospital of San Diego, San Diego CA
2020-present	California Health Corps.; Disaster Healthcare Volunteers of California (DHV) San Diego County Medical Reserve Corps (MRC); California Medical Assistance Team (Cal-MAT); California Emergency Medical Services Authority (EMSA)

RESEARCH INTERESTS:

Molecular and cellular basis of neural development and plasticity
Neural progenitor and stem cell biology; pluripotent & somatic stem cell biology
Lineage commitment and reprogramming
Embryonic development (particularly of the nervous system)
Regenerative Medicine
Neural transplantation & neural repair; Tissue engineering; Neural circuit development & reconstruction
Gene therapy (particularly of the nervous system)
Oncogenesis from a developmental perspective
Cell-based clinical trials
Newborn medicine & intensive care; Neonatal neurology; Neurointensive Care; Neuroprotection
Brain death; Ethics of CNS life & death
Personalized medicine, "Disease-in-a-Dish" technology, & drug discovery, particularly in newborns and children
Disease modeling
Viral infection (especially of CNS & lung)
Prenatal/fetal therapy
Proteomic & genomic profiling
Bioengineering
Disease modeling; in vitro & animal models of disease (especially of CNS & lung)
Neuropsychiatric disorders
Neurodegenerative disorders
Neurodevelopmental disorders
Acute & chronic neurotrauma
Clinical translation
Biomedical ethics
Medical & scientific education
Health care and biomedical science policy & regulatory issues
Health care & disease disparity
Academic administration

BRIEF CAREER OVERVIEW & PERSONAL STATEMENT

I identify proudly as an academic physician-scientist (specifically, a pediatrician-scientist) and as a passionate "bridge" person striving to link the clinical and basic science worlds (while also educating and influencing governmental, industrial/commercial, patient advocacy, ethics, regulatory, journalistic, and policy-making groups).

I feel honored to be regarded as one of the "fathers of the stem cell field", having identified 3½ decades ago that cells in the nervous system – which came to be called "stem cells" – are a source of neural plasticity and that, contrary to the dogma of the time, the nervous system (particularly the pediatric nervous system) retains a resilience and an ability to respond in a self-homeostatic manner to injury and even disease. Such neural stem cells (NSCs) were, in fact, the first "solid organ stem cells" rigorously identified, isolated, and used therapeutically. We were arguably the first to isolate NSCs, including of human origin (hNSCs), that were engraftable and could mediate therapeutic actions. We were the first to demonstrate that solid organ stem cells could participate in development and organ reconstitution, mediate cell and gene replacement, home to injury (including to tumors as a novel anti-oncocidal gene therapy) – helping to give rise to the concept of cancer stem cells), and perform protective, trophic, pro-regenerative, and anti-inflammatory actions. In addition to unveiling a number of the fundamental general properties of stem cells that span organ systems (providing fodder for therapeutic and biological insights that helped give rise to the field of "Regenerative Medicine"), we pioneered the use of (and laid the translational groundwork for) stem cells in a broad range of neurologic conditions (subsequently emulated in other organ systems), many in clinical trials today. I am gratified when students-of-

the-field acknowledge that virtually every clinical trial ongoing today in cell-based Regenerative Medicine is predicated on basic science principles we unveiled.

Although, we introduced to Neurology and Medicine at large the concept that neural plasticity (as mediated by our discovery, the NSC) might be harnessed therapeutically, we typically made our points by using *pediatric neurological diseases* as the prototype for generating precepts that helped give birth to "Regenerative Medicine", ultimately impacting all organs and all ages.

We pioneered the use of combined therapies – not only the notion that stem cells themselves perform multi-faceted actions but that multiple modalities are required for therapeutic effect (e.g., cellular plus molecular therapies; cellular combined with bioengineering solutions; the use of multiple cell types, including in 3 dimensions). Indeed, we were the first to combine stem cells and biomaterials. We pioneered the notion that the stem cell could be the "glue" that held multiple therapeutic modalities together. We were the first to demonstrate that hNSCs could prove therapeutic (by multiple mechanisms) in large animal models of disease (including the first NSC transplants into adult and developing non-human primates.) More recently, we have used stem cells to model developmental processes and disease, with an eye to revealing fundamental underlying pathogenic and pathophysiological mechanisms (inherited, *de novo*, and acquired [e.g., stroke, neuropsychiatric disorders, dementia and cognitive disorders]), identifying novel drug targets, and discovering drugs against those targets. We have become particularly taken by the challenge of using stem cells (which have proven useful for monogenic diseases) to make inroads into the heretofore daunting polygenic multifactorial complex disorders, which constitute the preponderance of neurologic (particularly pediatric) conditions. Such models include those in 3-dimensions and composed of multiple cell types. We have unveiled a novel concept in Regenerative Medicine: that most neurological conditions are *not* those of cells per se but rather of networks – and coined the term *"network'opathy".* We have also recently published Regenerative Medicine's *1st biomarker* for patient stratification based on mechanism-of-action of a stem cell for a particular condition, laying the groundwork for biologically rational clinical trials. We have also taken a role in contributing to the call from the National Cancer Institute (NCI) for "next generation cancer models (NGCMs). We have used stem cell biology to create a new assay – called *"reprogram enablement"* which might identify for pre-emptive targeting the earliest oncogenic pathways for a given solid organ cancer.

In short, our work arguably helped launch the field of Regenerative Medicine. Interestingly, these basic investigations all derived from an abiding curiosity raised by my clinical experiences as a child neurologist, pediatrician, neonatologist, and neurointensivist (and, before that, a pediatric social worker): *what was the source of resilience and plasticity in the pediatric and developing brain* and might that molecular and cellular capacity (if identified and understood) be used to promote well-being (and, perhaps, turn neurology from predominantly a *diagnostic* (its reputation at the time) to an *interventional* discipline)? Also, recently, we have embraced the field of *personalized/precision medicine*, recognizing that we molecular stem cell biologists, who also work at the "beginning of human life" (as I do as a neonatologist and neonatal neurologist), have the unique opportunity to create a database based on single cell molecular 'omics and functional cell read-outs (what we have dubbed *"phen-omics")* that can be correlated in a prospective unbiased fashion) with constant recursive clinical correlation. We believe this approach will revolutionize the field of personalized medicine by throwing into relief prospectively informative and prognostic biomarkers and hence to mechanisms-of-disease and potential preemptive drug targets; pediatricians will be at the vanguard of this new approach. I have assumed the *Chairmanship of the SAB to NIH's/NIGMS's genetic disease biobank*; the majority of the diseases with which biobank deals have turned out to be neurologic. I think we can finally make some inroads in those most challenging of conditions.

I am extremely collaborative in my approach to science and medicine. Not only do I lead a number of committees and organizations, but with regard to my own personal lab work, I find it gratifying that some of my most noteworthy publications are the result of large collaborative, multi-institutional, multi-disciplinary, even multi-national, projects that I have shepherded to fruition (e.g., Flax et al, *Nat. Biotech,* 1998; Aboody et al, *PNAS*, 2000; Redmond et al, *PNAS*, 2007; Teng et al, *Science Transl Med*, 2012; Tobe et al, *PNAS*, 2017).

Although I am a *pediatric and neonatal* neurologist, my research as a stem cell biologist who has deep and ongoing clinical involvement has required me to become an "immigrant" in a wide-range of other (including adult) fields where I have come to serve (often in leadership capacities) in governmental and private

agencies dealing with the clinical and research aspects of these conditions: Parkinson's Disease, ALS, brain tumors, lysosomal storage diseases, MS, leukodystrophies, mitochondrial diseases, ataxia syndromes, hydrocephalus, spinal cord injury, stroke, traumatic brain injury, autism, dementias, arthritis, pulmonary disease, diabetes. I am often called upon to offer perspective on developments in these areas (recent examples would be *Science* 357:869-70, 2017 and the overview piece for the annual 2018 special issue of *Pediatric Research*). I have edited or co-edited a number of text books in this area (e.g., *Stem Cell Technologies in Neuroscience,* Springer Nature, New York NY, 2017). I was recently called upon by the FDA (September 27, 2023) to "teach" their *Cell, Tissue, & Gene Therapy Advisory Committee* on the basic principles underlying cell-based approaches to neurological disease so that they could make better informed decisions about granting approval to some cell-based therapies under consideration.

I am on the faculty of *UCSD's Biomedical Sciences Graduate Program in the Genetics and Genomics tract* and am the Steering Committee of UCSD's MD-PhD program.

I earned my M.D. and Ph.D. in neuroscience from the *University of Pennsylvania* (as an awardee of NIH's *Medical Scientist Training Program [MSTP]).* I also studied psychology, philosophy, and linguistics at the *University of Oxford* (Oxford, UK). I received all of my medical post-graduate training (in pediatrics, neurology, and neonatal-perinatal medicine) at *Children's Hospital-Boston, Harvard Medical School* (MA, USA) as well as a basic science research post-doctoral fellowship in the *Department of Genetics* at *Harvard Medical School*, after which I became an attending physician in the *Department of Pediatrics (Division of Newborn Medicine)* and *Department of Neurology at Children's Hospital-Boston, Harvard Medical School*. Prior to that, I served as Chief Resident, first in Medicine and then in Neurology at *Boston Children's Hospital* where I learned that I also very much enjoyed academic medical education, administration, and outreach in leadership capacities. I am board-certified in pediatrics, neurology (child and adult), and newborn intensive care (neonatal/perinatal medicine) (I have been told that I was the first physician in the world to be so triple-boarded). I established my own independent research program at *Boston Children's Hospital, Harvard Medical School* and was appointed first as an instructor in neurology (neonatology) and then promoted to assistant professor where I helped launch the stem cell and regenerative medicine fields, as described above.

In 2003, after 23 years at Harvard, in the midst of the growing excitement over stem cells, I was recruited to Southern California (where a stem cell "safe haven" bill had just been passed) -- to *Sanford-Burnham Prebys Medical Discovery Institute (SBP)* and *University of California-San Diego (UCSD) (Department of Pediatrics)* (both in La Jolla) as a Full Professor (promoted directly from Assistant Professor at Harvard) and Founding Director of the *Center for Stem Cells & Regenerative Medicine*. I then inaugurated the Institute's *Stem Cell Research Center & Core Facility* (keeping it self-sustaining and "in the black" through grants and/or fee-for-service), initiated the *Southern California Stem Cell Consortium*, & helped found and design the *Sanford (San Diego) Consortium for Regenerative Medicine (SCRM)* (for which I now serve on the governing committee). These positions have required me to write grants and proposals that fund the activities of many investigators (including trainees) and projects. In the mid-2000's, I directed/co-directed one of NIH's first 6 Stem Cell Centers of Excellence and one of NIH's first 5 Stem Cell Training courses. I presently direct or co-direct 3 stem cell training programs, wherein the trainees include high schoolers, undergrads, grad students, post-docs, and clinical fellows. I was a member of the leadership team that gained passage of California Proposition 71 that established the *California Institute of Regenerative Medicine (CIRM),* served on the advisory committee to the president of CIRM, and now serve on the Scientific Advisory Board (SAB) of *Americans for Cures* and *Californians for Cures* which successfully sucessfully orchestrated renewal of CIRM's electoral mandate (Proposition 14), as well as advancing stem cell research and regenerative medicine statewide and nationwide.

I have sat on many national and international scientific and editorial boards, often in leadership positions. These boards have been in academia, on foundations, in government (both American and foreign), in patient advocacy groups, in physician and/or scientist groups, and in the private sector. For example, internationally, I served on and/or chaired the EU's panel to create a European hiPSC bank, have helped the Australian government select groups to launch clinical trials in the use of SCNT for treating mitochondrial disorders, helped the Italian government select grants targeting ALS -- and numerous other committees.

I am also a founding fellow of the *American Society for Therapy & Repair (ASNTR)*, and served a term as its President (also having received its *Sanberg award* for lifetime achievement in the field).

I was on the inaugural founding editorial board of *Cell Stem Cell* and *Current Protocols in Stem Cell Biology*, and hold leadership positions on others; for example, I am a section editor for *Experimental Neurology*.

I am often called upon to interface with lay and non-scientific professional groups and the press. I have organized and garnered extramural funding for many symposia and educational programs. I helped spearhead the ethics programs in San Diego, including organizing symposia and working groups and writing white papers (e.g., Snyder et al, *Nature Biotech*, 2006).

I was a founding member of the *FDA/NIH Stem Cell Working Group* to generate guidelines for human transplantation, and served nearly a decade on the *FDA's Biological Response Modifiers Advisory Committee* with emphasis on stem cells, as well as serving 2 terms as Chair of the *FDA's Cellular, Tissue, & Gene Therapy Advisory Committee* (a standing Advisory Committee to CBER, which evolved from those earlier above-mentioned committees that I helped inaugurate). I am now Chairman of the *Scientific Advisory Committee (SAC) of the Genetic Disease Biobank of the National Institute of General Medical Science (NIGMS) at NIH*. I have also been selected to be a member of the newly-formed *National Institute of Neurological Diseases (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC)* whose mission is to evaluate, advise, and support the distribution of a GMP grade human induced pluripotent stem cell line (hiPSCs) to entities working to obtain regulatory approval for clinical trials with hiPSCs.

I was invited to serve on the expert panel of the *Bipartisan Policy Center* (a non-partisan think tank and advisory committee to Congress, founded by former Senate majority leader Bill Frist, to help expedite the *rational* approval of novel cell-based therapies).

I have performed extensive amounts of NIH service, participating not only multiple study sections of every kind (R-level grants, F-level grants, COBREs, MRRCs, SBIRs, PPGs, Centers, Fogarty's), but also as an ad hoc member of *NIMH's Board of Scientific Counselors* and an external scientific consultant for *NIDDK's Intestinal Stem Cell Consortium*. Indeed, I have reached NIH's lifetime limit of grant review study sections on which a given reviewer may serve; hence "my number has been retired".

In addition to my scientific activities in stem cell biology, Regenerative Medicine, and developmental biology, I have always remained a practicing academic physician (neurologist, pediatrician, neonatologist), first at *Harvard Medical School (Boston Children's Hospital)* and then at *University of California, San Diego (UCSD)*. I have written and continue to write extensively in the clinical literature (including in textbooks – e.g., S*waiman's Pediatric Neurology*; *Polin's Neonatology*; a textbook we started entitled *Case Files in Neuroscience* – and in clinically-oriented journals, like *the New England Journal of Medicine*, e.g., for their *Clinical Implications of Basic Science* feature or the *Bench-to-Bedside* feature for *Nature Medicine* or invited opinion pieces and reviews for *Pediatric Research*), and routinely lead teaching sessions for clinical trainees in the translation of *bedside-to-bench* as well as *bench-to-bedside*. Indeed, back at Harvard, I helped co-found a novel educational program in the Division of Newborn Medicine bridging clinical and research experiences for trainees, the centerpiece of which was *Bedside-to-Bench Rounds*, a program I have continued at SBP and UCSD (and has continued at Harvard since I left). I headed the basic science teaching effort for the Division of Neonatology at UCSD, and sit on many UCSD committees responsible for bridging research and patient care (including serving on the steering, scientific advisory, & admissions committees for the *Medical Scientist Training Program [MSTP] MD-PhD program*. I have sat on the Research Advisory and Monitoring Committee for the Division of Neonatology, and, when it was active, the Research Advisory Committee to the Dept. of Pediatrics Chair. I have been an Associate for the *Fulbright Visiting Scholar Program*. I participate in, teach about, advise, and/or lead clinical research and clinical trials. (In fact, on the NIH study section evaluating SBIRs, on which I used to sit as a permanent member, I was entrusted with evaluating any grant that proposed a clinical trial).

Most recently, I have been engaged in the planning and imminent execution of clinical trials using stem cell derivatives for the following conditions: ALS, perinatal asphyxia and stroke, recurrent glioblastoma, neurogenic lysosomal storage diseases, and Parkinson's Disease. I am the PI on a recently-awarded $5MM

grant from the *California Institute of Regenerative Medicine (CIRM)* to launch a clinical trial on the use of human neural stem cells as a neuroprotective agent for perinatal hypoxic-ischemic cerebral injury. I am particularly proud of this trial, not because it will represent the first sanctioned used of NSCs in a baby, but because, in a sense, it represents bringing my career full circle. It will bring together all the concepts I have tried to pioneer over the years – harnessing fundamental developmental principles (which the stem cell represents), to treat a neurological problem in a developing system – and allow me, personally, to bring the concepts I discovered as a scientist at the bench to the bedside as a clinician, employing the regulatory skills I have learned in chairing FDA committees, to make a rationale impact.

As noted above, a recently funded focus of our group has been on *personalized/precision medicine*, particularly starting in the pediatric age group, and profiling not only "molecular 'omics", but functional read-outs ("phen-omics") (based on living stem cell derivatives). One of the results will be the first repository and database for premature newborns (including their developmental profile and a molecular "fingerprint" for the disorders and conditions to which they are prone)

To help address academic physician "burn-out" and ensure equity in rewards, compensation, and obligations for clinical and scholarly activities in medical school and teaching hospital departments, I led a team that devised an algorithm called the *"Academic RVU",* which we hope to develop into a tool for use nationally for the purpose -- as our tag-line says -- of "leading a successful academic medical department in a revenue-driven health care system".

I have held many leadership and organizational positions in many different arenas, including programs that entail budget management, management of large numbers of personnel and many "moving parts", and/or the planning of new buildings. I am a graduate and Diplomate of the select *Healthcare Leadership Academy* (an MBA-like program).

I do a good deal of organizing of scientific and clinical events, symposia, and courses. I founded and continue to direct the annual *Hot Topics in Stem Cell Biology* symposium, which, now in its 20th year, is a staple of the annual meeting of the *Society for Neuroscience* and among the most highly regarded stem cell events in the neurosciences. I was chosen to co-organize a Symposium on *"Cognitive-Behavioral Neurology: The Molecular & Cellular Basis of Developmental Cognitive & Behavioral Disorders"* for the *16th International Child Neurology Congress/49th Annual Child Neurology Society* joint meeting.

I am a Fellow of the *American Academy of Pediatrics (FAAP)* and was elected to the *Association of American Physicians (AAP)* and elected to be a Fellow to the *American Institute for Medical & Biological Engineering (AIMBE)*. In 2015, I received the Pioneer Award from the NIH Advanced Course in Frontiers in Stem Cells in Cancer. My biography was selected to be included in the textbook *Child Neurology: Its Origins, Founders, Growth & Evolution* (ed. Ashwal S), Elsevier/Academic Press, 2021).

I also have a long-standing track record of commitment to helping to ensure *diversity* in medicine and science. While at Harvard, I served on the training committee for the "Four Squares" Program which was dedicated to training Native Americans in a lab setting. For a number of years, I have participated both on the faculty and on the Advisory Board for an NIH Diversity Research Education Program (PI: Gerald Schatten) dedicated to grooming promising physician-scientists and other scientists from predominately under-represented and under-served communities in frontier technologies (including in the fields of NeuroAIDS, cancer, and addiction.) (Indeed, I received an NIH "Pioneer Award" from one of those efforts.) I am a co-investigator (with Dr. Schatten) on a grant from the National Institute of Drug Abuse (NIDA) to co-direct an annual course for training clinicians and scientists from underserved regions of the country. As a long-standing member of UCSD's MD-PhD admissions committee, I have helped ensure that we provide opportunities to under-represented minorities. The 3 above-mentioned CIRM training programs which I direct or co-direct are devoted to enhancing DEI and bringing URMs into STEM fields. I have reviewed for NIH's COBRE and Fogarty awards to fund scientists in underserved regions. I perform extensive public outreach, for example, founding the above-mentioned annual *Hot Topics in Stem Cell Biology*, serving on the SAB of *Americans for Cures*, and being appointed to the *World Health Organization (WHO)* Research Review Roster. I have always had great diversity in my own lab – as many women as men and investigators from countries worldwide and from a broad representation of ethnic, racial, socio-economic, and religious groups. Indeed, I have sought to attract under-

represented minorities to science, writing supplements to my NIH grants whenever possible. I have also had trainees in my lab with disabilities (including mental/emotional) and have always striven to make their access to training and productivity easy and comfortable.

I routinely teach in UCSD's course on scientific and medical ethics.

I volunteered for the *California Medical Assistance Team (Cal-MAT) and Emergency Medical Service Authority Health* during the COVID-19 pandemic to provide urgent medical care to an underserved community in California.

I have mentored >150 diverse trainees, have >300 publications, have delivered >750 invited talks, hold >30 patents, and have served on ~150 grant review study sections. I am among the top 15% most published and 10% most cited neonatologists in the world (as of 2021).

In short, I have energetically and passionately strived to be the quintessential *"bridge person"* in medicine/science – creating interfaces between basic, translational, and clinical research; patient care; training, education, out-reach, and communication; therapeutic development and regulation; ethics and health care delivery/availability/affordability/safety.

LAY INTERVIEWS WITH SNYDER

- (2012) https://www.youtube.com/watch?v=UtJz--QitfY
- (2022) https://www.youtube.com/watch?v=eRums0tqE34
- (2023) https://www.cellcomm.org/forum/interviews-with-experts/interview-with-evan-snyder

SUMMARY OF SOME CONTRIBUTIONS TO SCIENCE:

First to:

• Demonstrate the existence of isolatable, scalable, and engraftable NSCs (that integrate based on developmental and regional cues) — arguably the first solid organ stem cell discovered.

• Demonstrate the NSC's translational capabilities, including replacing cells; delivering therapeutic genes; rescuing endangered cells and altering pathological niches (introducing the "chaperone/paracrine" concept). Introduced the importance of not only secreted factors as being pivotal to the "chaperone effect" but also the passage of molecules cell-to-cell by contact (e.g., via gap junctions).

• Reveal and harness the NSC's penchant to "home" to pathology (tumors, infarcts/lesions, degeneration), coining the term "pathotropism", and using the molecular mechanism underlying that concept, create the 1st drug for directing the migration of therapeutic NSCs (which also represented the 1st bifunctional peptide based on chemical mutagenesis of a GPCR & the 1st synthetic agonist of CXCR4).

• Use NSCs to treat models of neurological diseases

• Devise the intraventricular route for stem cell transplantation into the CNS

• Use stem cells to unravel complex, polygenic diseases (including for drug discovery), introducing the "*molecular can-opener*" strategy by which we discovered the "network'opathic" underpinnings of bipolar and other cognitive disorders.

• Demonstrate cross-talk between the injured CNS and NSCs – which subsequently was seen to exist in all organs and their resident stem cells.

• Show the similarity between glioma cells and NSCs which helped give rise to the concept of cancer stem cells.

• Use proteomics to trace the emergence of the human neurectoderm from models of the epiblast (i.e., pluripotent human embryonic stem cells).

• Show that NSCs mediate multiple therapeutic actions simultaneously and can synergize with other modalities (e.g., bioengineering), proving that complex disorders require multimodal approaches. First to combine stem cells with biomaterials, helping to give rise to a novel branch of Regenerative Medicine.

• Introduce Regenerative Medicine's 1st biomarker for patient stratification. (Such concepts will help guide rationale clinical trials in the regenerative medicine space).

• Introduce the "reporter cell" concept wherein NSCs signal the pathophysiology of CNS perturbations.

• Pioneer advances in pluripotent cell use (e.g., introduced the strategy and metric of *"reprogram enablement"* for unraveling tumor initiation; introduced a unique cell type: the "induced conditional self-renewing progenitor cells").

• Demonstrate how cells from different organs coordinate their development to form the vertebrate body. (Neurovascular patterning in a model of the epiblast served as the prototype for this mechanism).

• Plan a clinical trial using NSCs in babies (for neuroprotection of the penumbra following perinatal hypoxic-ischemic injury, possibly supplanting hypothermia) (harnessing the developmental biology of the stem cell)

• Demonstrate a "back-door" route of SARS-CoV-2 viral entry into cells independent of receptor-mediated entry

• Demonstrate that developmentally-regulated surfactant present in the barrier layers of the cerebral ventricles, provides a heretofore unrecognized etiology for intraventricular hemorrhage in preterm babies (suggesting a possible prophylaxis)

AWARDS & HONORS:

1969 The Philadelphia Board of Education Merit-Based Full University Scholarship
1969 Citation of Merit, Commonwealth of Pennsylvania
1973 Phi Beta Kappa
1973 Summa Cum Laude with Highest Honors & Distinction in the Major, University of Pennyslvania
1973 Netzky Scholarship for study in Great Britain
1974 Linguistics Society of America Scholarship
1974 Medical Scientist Training Program Awardee, by NIH, at University of Pennsylvania
1975 William A. Jeffers Prize in Neurologic Research, University of Pennsylvania
1979 CIBA Foundation Award
1979 Mary Ellis Bell Award for Outstanding Research, University of Pennsylvania
1979 Excellence of Research Award, Eastern Research Forum
1979 Wilton R. Earle Award for Research, Tissue Culture Association & W. Alton Jones Cell Science Center
1979 Saul R. Korey Award for Research, American Academy of Neurology
1980 John G. Clark Prize for Meritorious Research, University of Pennsylvania
1980 Sigma Xi National Research Honor Society
1984 Chief Resident, Department of Medicine, Children's Hospital-Boston, Harvard Medical School
1986 Chief Resident, Department of Neurology, Children's Hospital-Boston, Harvard Medical School
1989 Farley Fellowship Award for Research, Children's Hospital-Boston & Harvard Medical School
1989 Clinical Investigator Development Award (CIDA), NINDS, NIH
1990 Young Investigator Award, Child Neurology Society
1990 Young Investigator Award, Eastern Society for Pediatric Research
1991 New Program Awardee, Mental Retardation Core, NICHD, NIH
1993 Nominee, Harvard Medical School Annual Teaching Award
1995 Elected Fellow of the American Society for Neural Transplantation
1997 Elected Councillor of the American Society for Neural Transplantation
1998 State-of-the-Art Lecturer, Society for Pediatric Research
1998 Child Neurology Society Visiting Scientist Awardee
1998 Keynote State-of-the-Art Address Selectee, Midwest Society for Pediatric Research
1999 William H. Tooley Visiting Lecturer, University of California, San Francisco, Dept. of Pediatrics
1999 Elected National Secretary of the American Society of Neural Transplanation & Repair
1999 Franklin Delano Roosevelt Grantee (from the March of Dimes)
1999 Alexis A. Boss Chair of Research of the Brain Tumor Society
2000 Pfizer Travelling Fellow, Institut de Recherches Cliniques de Montréal
2000 Arnold J. Rudolph Memorial Visiting Professorship, Baylor College of Medicine, Houston, TX
2000 Annual John Curran Neonatal Fellowship Lecturer, University of South Florida College of Medicine, Tampa, FL
2000 The Jerry Elliot Memorial Lecturer, New England Conference on Perinatal Research, Chatham, MA
2000 Outstanding Speaker Award, Advances in Clinical Chemistry, Education & New Technology, American Association of Clinical Chemistry (AACC)
2001 Annual Prize & Lectureship in Neurodegenerative Genetic Disease, Hospital for Sick Children in Toronto, Jacob's Ladder Foundation
2001 Grass Lecturer in the Neurosciences, Society for Neuroscience, University of Louisville, Kentucky
2001 State-of-the-Art Address, Academy of Pediatrics, Sections on Perinatal Pediatrics & Pediatric Neurology
2002 Keynote Speaker, Brain Tumor Society
2002 Keynote Speaker, International Multiple Sclerosis Society
2002 Keynote Scientific Speaker, Association of American Cancer Institutes
2002 State-of-the-Art Lecturer, Annual World Symposium on Lysosomal Storage Diseases
2003 Speaker, "Mini-Nobels", Stockholm, Sweden
2003 John W. & Marvelle M. Ridgeway Visiting Scholar, University of Missouri-Columbia School of Medicine
2004 Highman Lectureship, University of California-Davis
2004 Keynote Address, Inaugaral of the Children's Memorial Institute for Education & Research (CAMIER)

2004 Brain Cell Regeneration Annual Lectureship, Neurologlical Institute of New Jersey, University of Medicine & Denistry of New Jersey, Newark NJ
2004 Honoree for career contributions to children's neurological health, Children's Neurobiological Solutions, New York, October 7, 2004
2004 Joy Goodwin Lecturer, Auburn University, College of Veterinary Medicine
2005 The Molly & Bernard Sanberg Memorial Award in Recognition of Significant Contributions to the Field of Brain Repair, American Society for Neural Therapeutics & Repair
2005 Keynote Speaker, American Academy of Pediatrics, Biannual Intensive Review Course of Neonatal/Perinatal Medicine
2005 Keynote speaker, 13th Annual Western Perinatal Research Meeting
2005- Director (dual PI), NIH Human Embryonic Stem Cell Research Center grant
2006 27th Annual Reynolds Historical Lectureship, University of Alabama at Burmingham.
2006 Outstanding presentation award in basic stem cell research, Stem Cells & Regenerative Medicine 2006 Meeting, San Francisco, GeneExpression Systems
2006 MacKeith Basic Science Lecturer, American Association of Cerebral Palsy & Developmental Medicine
2006 Arthur & Mary Robinson Family Lecturer, University of Colorado Health Sciences Center
2006 James B. Sidbury Lectureship, Department of Pediatrics, Duke Children's Hospital & Health Center, Duke Medical School
2006 Henry Dunn Lectureship, Department of Pediatrics, University of British Columbia & British Columbia Children's Hospital
2007 Elected President (for 2008-09) of the American Society for Neural Therapy & Repair
2007 State-of-the-Art Lecturer, 33rd Annual New England Conference on Perinatal Research
2007 State-of-the-Art Lecturer, Section on Perinatal Pediatrics, American Academy of Pediatrics National Conference
2007 Elected Fellow of the American Academy of Pediatrics (F.A.A.P)
2007 Gardner Lectureship, Pennsylvania State University School of Medicine
2008 Selected by President of Israel to help craft future biomedical research in area of stem cells
2008 Forbes Magazine List of "12 Stem Cell Revolutionaries"
2008 Robert Gross Lectureship, Dept. of Pediatric Surgery, University of Texas Medical School–Houston
2008 C.N. (John) Liu Memorial Lectureship, Dept. of Cellular & Developmental Biology, University of Pennsylvania School of Medicine
2009 Hunt Wilson Lectureship, American Association of Neurological Surgeons (AANS)
2009 Co-recipient (as member of 4-Person Scientific Steering Committee of the Sanford Consortium for Regenerative Medicine) of the San Diego Chamber of Commerce Regional Unity Award
2009 25th annual Goldberg Family Lecturer, Dept. of Neurology & Center for Translational Neuromedicine, University of Rochester.
2009 Inaugural Merenstein Keynote Lectureship, American Academy of Pediatrics
2009 The LM Stephenson Lectureship (Annual Discovery Day Featured Speaker), Drexel University College of Medicine
2010 John S. Latta Lectureship, University of Nebraska Medical Center
2010 Brain Awareness Week Lecturer, St. Louis Univeristy School of Medicine
2010 Danny Thomas Visiting Professor & Lecturer, St. Judes Children's Research Hospital
2010 35th Annual Preston Robb Lecturer, Montreal Children's Hospital & McGill University, Montreal
2011 Appointed Acting Chair, FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2012 Appointed Chairman, FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2012 John K. Barlow Memorial Lectureship, Masssachusetts General Hospital, Dept. of Neurology, Harvard Medical School
2012 16th Annual Peter Tizard Memorial Lectureship of the Neonatal Society of the United Kingdom
2013- Non-Cardiac Topic-of-the-Year Speaker, 10th International Symposium on Stem Cell Therapy & Cardiovascular Innovation, Madrid, Spain: Stem cells & spinal cord repair.
2013 Co-Chair, 2013 World Stem Cell Summit
2015 Pioneer Award from the NIH Advanced Course in Frontiers in Stem Cells in Cancer

2015 Alumnus-of-the-Year & Inductee into "Wall-of-Fame", Northeast High School, Philadelphia, PA.
2015 "Rock Star of Innovation", CONNECT, San Diego.
2018 Elected to *Association of American Physicians*
2019 Admitted to and graduated from the select *Health Leadership Academy*
2019 Appointed Chairman, Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository for NIH
2020 Teaching Excellence, National Institute of Drug Addiction (NIDA), Frontiers in Addiction Research & Pregnancy Advanced Training Program.
2020 Listed as a "Top Doctor" (Neonatology).
2021 Elected to be a Fellow to the *American Institute for Medical and Biological Engineering (AIMBE)*
2021 Biography included in the textbook *Child Neurology: Its Origins, Founders, Growth & Evolution*, (ed. Ashwal S), Elsevier/Academic Press (2021)

COMMITTEES & LEADERSHIP POSITIONS – LOCAL, NATIONAL, & INTERNATIONAL:

1990-2003 Clinical Working Group, Joint Program in Neonatology, Harvard Medical School
Devised & implemented plan for management of neonatal intraventricular hemorrhage
1992-98 Co-Founding Director, Joint Program in Neonatology, Summer Student Research & Education Program, Harvard Medical School
1992-98 Developmental biology section/Developmental newborn medicine, Joint Program in Neonatology, Harvard Medical School
1993 Consultant, NIH, NICHD, Mental Retardation & Developmental Disabilities Branch Advisory on "Gene Therapy for Mental Retardation & Developmental Disabilities"
1994-1996 Ethics Committee, American Society of Neural Transplantation
1995 Concept Plan Reviewer, NIH, NINDS, Division of Stroke and Trauma, Advisory on "Development of Neuronal Precursor Cells for Transplantation after CNS Trauma"
1997 Milken Medical Foundation, White Paper Task Force
1997-1999- Founding Director, *New England Stem Cell Consortium*
1997-2001 Council, *American Society of Neural Transplanation*
1999-2001 Secretary, *American Society of Neural Transplanation & Repair*
1998-99 Awards Committee, Child Neurology Society
1999-2000 Gene therapy Advisory Board, *Hunter's Hope Foundation*
1999-2004 Scientific Advisory Board & Permanent Study Section Member, *The Myelin Project*
2000 Member, Stem Cell Working Group, FDA/NIH Committee on generating standards for human transplantation studies.
2000-2008 Recurrent ad hoc member, FDA's Cellular, Tissue, & Gene Therapies Advisory Committee
2000 Group Member, NIH, PULSE Task Force for Enhancing Efficacy of Cardiopulmonary Resuscitation: Neurology Preservation Group
2000 NCI/NINDS Progress Review Group on brain tumors
2001-2003Harvard Center for Neuroscience Research, Task Force A (Translational Neuroscience Core)
2001 NINDS Progress Review Group on stroke
2002-2006 Permanent member/reviewer, NICHD's Mental Retardation Research Subcommittee
2002-present Scientific Advisory Board, National Tay-Sachs & Allied Diseases Association
2001-2012 Scientific Co-Founder & Co-Chairman, Children's Neurobiological Solutions (CNS) Scientific Advisory Board & Board Member
2002-2009 Food & Drug Administration, Biological Response Modifiers Advisory Committee (BRMAC)
Consultant, Center for Biologics Evaluation & Research (CBER) – with emphasis on stem cells (Special government employee [SGE])
2002-2012 Scienfic Advisory Board & Permanent Study Section Member, National Brain Tumor Society
2002-2009 Chair, Stem Cell Biology Category, National Brain Tumor Society Grant Reviews
2001-2003 Founder & Director, Harvard Institutes of Medicine Neuroregeneration Consortium
2003-2004 Stoke Council, American Heart Association (membership # 99306185)

2000-2003 Neural disorders gene therapy scientific committee, American Society for Gene Therapy
2003-present Founding Director, Southern California Stem Cell Consortium
2003-present Co-Founder, Stem Cell Resource (an international repository for embryos for academic research)
2003-2017 Founding member, San Diego Research Ethics Consortium
2004-2007 Scientific Advisory Board & Permanent Study Section Member, Stem Cell Research Foundation of the American Health Assistance Foundation
2004-2007 Co-Director, NIH-sponsored Human Embryonic Stem Cell Trainining Course (hosted by The Sanford-Burnham Institute (in collaboration with The Children Hosptial of Orange County)
2004-present Scientific Planning Advisory Group (SPAG), Sanford Burnham Prebys Medical Discovery Institute (SBP)
2004 Co-organizer, Conference on Stem Cells as Therapeutic Treatment for Pediatric Neurological Disorders: Planning a Phase I Clinical Trial (sponsored by Children's Neurobiological Solutions & A-T Children's Project)
2004 Founder & Co-Organizer, Symposium Series on Public Policy & Bioethics, La Jolla CA –"When does human life begin: can ethical, legal, & biological definitions converge"?
2004-present Founder & Annual Organizer & Chairman, "Annual Christopher Reeve Satellite Symposium on 'Hot Topics' in Stem Cell Biology, *Society for Neuroscience*
2004 Co-organizer, 13th Annual Growth Factor & Signal Transduction Conference, Stem Cell Biology: Development & Plasticity, Ames, Iowa
2004 Society for Neuroscience Media Resource Directory member
2005-present Scientific Steering Committee, *San Diego (Sanford) Consortium for Regenerative Medicine (SCRM)*
2005 Co-Organizer/Co-chairman, Symposium Series on Public Policy & Bioethics, La Jolla CA – "Human embryonic stem cell research: Are there scientific solutions to the moral dilemmas?"
2005 Co-organizer/Co-Chairman, & Scientific Advisory Board, IBC International Conference on "Stem Cell Research Challenges", November 7-9, 2005.
2005-2012 Center for Ethics in Science & Technology, Media Expert
2005-2012 Fellow of the Ethics Center, UCSD
2006-2012 Executive/Leadership Team, Sanford-Burnham-Prebys Medical Discovery Institute (absorbed by SPAG)
2006 Scientific advisory committee, 1st International Stem Cells & Regenerative Medicine Meeting, "Molecular Embryology to Tissue Engineering & Therapeutics", GeneExpression Systems.
2006 Member, NIH Blueprint for Neuroscience Research (Neurodegeneration) Working Group
2006-2009 Member, Embryonic/somatic stem cell & tissue engineering committee, American Society for Gene Therapy
2006 International Scientific Advisory Board, 4th International Symposium on Neuroprotection and Neurorepair: Cerebral Ischemia and Stroke, May 3-6, 2006, Magdeburg, Germany:
2006 Editor, Special Issue on the Intersection between stem/progenitor cell biology and stroke/hypoxic-ischemic injury, *Experimental Neurology*
2006 Co-Editor, Special Issue on the ethical foundations of embryonic stem cell research, *Stem Cell Reviews*
2006 Invited symposium organizer & chair, Annual Meeting of the Child Neurology Society: "Future Therapy in Child Neurology", October 21, 2006, Pittsburgh, PA.
2006-2017 Co-Organizer, Co-Founder, & Co-Chair, Cell & Gene Meeting on the Mesa, annual international stem cell symposium and biotech partnering forum located in San Diego
2006-present California Institute for Regenerative Medicine (CIRM) Training-Grant-at-Burnham Study Section/Selection Committee & Scientific Advisory Board
2006-present Coordinator, CIRM Bridges internship program at Sanford Burnham Prebys
2007 Co-Organizer, American Society for Gene Therapy Annual Meeting Symposium on Stem Cells, May 30-June 1, 2007
2007 Co-Organizer, 2nd Annual Symposium, Stanford University, Center for Biomedical Ethics, Program on Stem Cells in Society, February 9, 2007.

2007 Co-Organizer, NIH, NIGMS Stem Cell workshop, March 12-13, 2007
2007 Co-Organizer, 2nd Annual Conference on the Commerical Implications of Stem Cell Research at the 14th International Molecular Medicine Tri-Conference March 2, 2007
2007 Organizer, American Chemical Society, 41st regional meeting, "Frontiers in Chemistry, Biopharmaceuticals & Biotechnology" Session on Stem Cell Research, October 10, 2007.
2007 Co-Organizer, Center for Ethics in Science & Technology, Stem Cell Ethics Conference, April 6, 2007, San Diego CA
2007-present Working Group Participant, Advisor, & White Paper Contributor, STEPS ("Stem Cell Therapies as an Emerging Paradigm in Stroke") program.
2007-2010 Scientific Advisory Committee, Neurosurgery Neuroscience Consortium (NNC), UCSD Division of Biological Sciences and Dept. of Neurosurgery, UCSD
2007-present PI & Director, CIRM-supported SBP Stem Cell Center & Oversight Committee
2007-present California Stem Cells Scientific Advisory Board
2008-2009 President, American Society for Neural Therapy & Repair (ASNTR)
2008-present UCSD Genetics Training Grant Retreat Committee
2008-2012 Scientific Advisory Board, Center for Stem Cell Biology & Regenerative Medicine, Thomas Jefferson University
2008-2012 Scientific Advisory Board, Texas A&M Health Science Center College of Medicine's Institute for Regenerative Medicine
2008-2009 International Advisory Board of the 2009 World Congress of the Tissue Engineering & Regenerative Medicine International Society (TERMIS)
2008-present BioTech Advisory Committee of the Reuben H. Fleet Science Center, San Diego CA
2008-present Scientist/Principal Investigator, Stanford Center for Children's Health Research
2007-2012 Embryonic/Somatic Stem Cell & Tissue Engineering Committee, American Society for Gene Therapy
2008-present Scientific Advisory Committee, Steering Committee, & Admissions Committee, NIH-sponsored Medical Scientist Training Program (MSTP) [MD-PhD Program], University of California, San Diego (UCSD), School of Medicine (SOM)
2008-present Scientific steering & advisory committee, California Institute for Regenerative Medicine (CIRM) post-doctoral training program at Sanford-Burnham Institute
2008-2009 Angelman Syndrome Foundation Roadmap Task Force
2008-2012 Chairman, The Scripps Research Institute Shared Stem Cell Research Lab Oversight Committee
2009-present Council, American Society for Neural Therapy & Repair (ASNTR)
2009 NCI Cancer Stem Cell Imaging Workshop Co-Organizer
2009 Organizer, Presidential Symposium, American Society For Neural Transplantation & Repair, "New techniques & tools for neural repair".
2009 American Academy of Neurology Abstract Review Committee
2009-2012 Full member, FDA Cell, Tissue, & Gene Therapy Advisory Committee
2009-2014 California Institute for Regenerative Medicine (CIRM) Presidential Scientific Advisory & Board & Leadership Committee
2010-present Founding member, Scientific Steering/Leadership Committee, San Diego (Sanford) Consortium for Regenerative Medicine (SCRM)
2009-present Advisory Committee, Howard Hughes (at UCSD) "Med-into-Grad" Program
2009-2014 Board of Trustees/Founding Member, Alliance for Regenerative Medicine (ARM)
2009-present California Institute for Regenerative Medicine (CIRM) Bridges Internship Program Scienific Advisory Committee (for SDSU and CSU-San Marcos).
2009-present External Scientific Advisory Board, University of Maryland School of Medicine, Dept. of Pediatrics Program Project on "Metabolic & Developmental Aspects of Mental Retardation".
2010 Program Committee, "Clinical Development of Stem Cell Therapetuics: Scientific, Regulatory, & Ethical Considerations", Drug Information Association, Bethesda, MD, April 12-13, 2010.
2010 Program organizing committee for stem cell sessions, 13th Annual Meeting of the American Society for Gene & Cell Therapy
2010 Reviewer, American Academy of Neurology Annual Meeting

2010	Program Organizing Committee, Symposium on Advancing Clinical Trials in Pediatric Populations, Children's Neurobiological Solutions.
2010-present	International Society for Stem Cell Research Inquiry Review Panel
2010	Co-organizer & Co-chair, Symposium on eliminating the barriers to clinical trials and treatments for pediatric neurobiological disorders, Children's Neurobiological Solutions, July 15-16, 2010, Washington, DC
2010-11	Organizing committee, 11th meeting of the International Society for Neural Therapy & Repair; organizer, Symposium on "Disease-in-a-Dish", Clearwater, FL
2011-12	Search Committee, Chairman of Neonatology, Dept. of Pediatrics, UCSD
2011	Advisory committee, Alliance for Regenerative Medicine (ARM) Investor & Partnering Forum
2011	Acting Chair, FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2011-2013	Steering Committee, NIH's LINCS (Library of Integrated Network-based Cellular Signatures) Program
2011-2021	*Cell Stem Cell,* translational stem cell advisory committee
2011	Chairman, FDA Intramural Scientific Site Visit Committee
2012-present	Search Committee, Sanford Consortium for Regenerative Medicine.
2012	Co-organizer, Sanford-Burnham Medical Research Institute 34th Annual Symposium, "Frontiers in Stem Cell Biology for Drug Discovery"
2012	Co-editor, Special Issue on Stem Cell Biology, *Experimental Neurology*
2012	Co-organizer, 2012 9th Annual World Stem Cell Summit, West Palm Beach, FL
2012-18	Space policy & review committee, Sanford-Consortium for Regenerative Medicine (SCRM)
2013	Co-organizer, Children's Neurobiological Solutions Workshop, January 11-13, 2013: "The Best Next Steps: Setting a Path for Advancing Pediatric Neurological Research"
2013	Advisor, 10th Stem Cell Summit, April 29-30, 2013, Boston MA
2013	Rapporteur & Expert evaluator, European Union (EU) & Innovative Medicines Initiative (IMI) (a public-private partnership between the EU & the European Federation of Pharmaceutical Industries & associations), Selection of the European Induced Pluripotent Stem Cell Bank
2013	Invited external reviewer, Institute for Regenerative Medicine (IRM) at the University of Pennsylvania, a university-wide, multi-school, multidisciplinary institute
2013	Co-Chair, Co-Organizer 2013 9th World Stem Cell Summit, San Diego, CA
2013	University of California-San Diego Health System, Perinatal Practices Committee
2013-2018	Scientific Advisory Board, GTC's 2014 Stem Cell conference
2013-present	Penn Medical School Mentor
2013-present	Advisory Board, UCSD Clinical and Translational Research Institute (CTRI) Education Division
2013	Outside Scientific Review Committee, University of Connecticut Stem Cell Research Oversight Committee
2014-present	Senior Mentor, National Center of Leadership in Academic Medicine (NCLAM) (UCSD faculty)
2014-present	Executive Committee of the Scientific Advisory Board for *Report Back to the Public*, stem cell informational network
2012-2014	Chairman (2 terms), FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2015	Ad hoc review member, National Institute of Mental Health, (NIMH), NIH, Board of Scientific Counselors (BSC)
2015	Chairman, European Union (EU) & Innovative Medicines Initiative (IMI) (a public-private partnership between the EU & the European Federation of Pharmaceutical Industries & associations), Interim Review of the European Induced Pluripotent Stem Cell Bank
2015-17	Brain Canada Platform Support Grant Competition Referee
2015-18	Research Committee, Child Neurology Society
2015-16	Expert panel, Bipartisan Policy Center (a bipartisan advisory committee to Congress to help expedite the rational approval of novel cell-based therapies)
2015	Chairman, *Fondazione Italiana di ricerca per la Sclerosi Laterale Amiotrofica (AriSLA)* grant review & international scientific advisory committee (Italian ALS society)
2015-20	Takeda-Sanford Innovation Alliance Joint Advisory Committee
2015-19	Research Working Group, Division of Neonatology, Dept. of Pediatrics, UCSD

2016-present Organizer, Monthly La Jolla Mesa Basic Scientist-Clinician Cross-talk Sessions
2016-2019 Program Committee, American Society for Neural Therapy & Repair
2016-present Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository for NIH
2016 NIH Fogarty Global Brain Disorders Review Committee
2016-2019 UCSD, Dept. of Pediatrics, Neonatology Research Monitoring & Advisory Committee
2016 Chairman, New York State Department of Health & the Empire State Stem Cell Board (NYSTEM) Peer Review Panel (Pluripotency, Chromatin and Epigenetics Panel)
2016 Lundbeckfonden Foundation European Brain Prize Selection Referee
2016 Associate for the Fulbright Visiting Scholar Program
2017 Member, UCSD Chairman of Neurosurgery Search Committee
2017-present External Scientific Consultant, NIH's Intestinal Stem Cell Consortium (ISSC) (NIDDK/NIAID)
2017-23 SAB member, Zhuhai Nobel Institute of Biomedicine (NIB), Zhuhai, China
2017-present SAB member, *Americans for Cures Foundation*
2018 Chairman & Expert Evaluator, European Union (EU) & Innovative Medicines Initiative (IMI), 2nd call for European Induced Pluripotent Stem Cell Bank
2018-2019 UCSD Dept. of Pediatrics Discovery Grants Review Committee
2018-present Course co-PI/co-Director National Institutes of Health (NIH)/National Institute of Drug Abuse (NIDA) Course on the *Frontiers in Addiction Research & Pregnancy*" (with Gerald Schatten)
2019-present Chairman, Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository for NIH
2020-present International Society for Stem Cell Research (ISSCR) abstract review committee
2020 Organizer, Symposium on "Cognitive-Behavioral Neurology: The Molecular & Cellular Basis of Developmental Cognitive & Behavioral Disorders", 16th International Child Neurology Congress/49th Annual Child Neurology Society joint meeting, October 21, 2020, San Diego, CA
2020-present SAB member, *Californians for Cures Foundation*
2020 Chosen chairman, Grant Review Panel for Investigator Initiated Research Projects & Innovative, Developmental, or Exploratory Activities for the New York State Department of Health & the Empire State Stem Cell Board's New York Stem Cell (NYSTEM) program *(session halted due to Pandemic)*
2020 Canadian Stem Cell Network Grant Program on Accelerating Clinical Translation; Fueling Biotechnology Partnerships; Innovation Research Program for Early Career Investigators, and Translation and Society Team Awards
2020 Co-organizer, Symposium on "Cognitive-Behavioral Neurology: The Molecular & Cellular Basis of Developmental Cognitive & Behavioral Disorders", 2020 Joint Meeting of the International Child Neurology Congress & Child Neurology Society, October 21, 2020.
2021 Moderator, NIH/National Human Genome Research Institute (NHGRI) workshop on the ethical, legal, & social implications (ELSI) of the creation & use of induced pluripotent stem cell (iPSC) lines.
2022-present Scientific Advisory Board, California Institute for Regenerative Medicine (CIRM) Training Program for undergraduates at CSU-San Marcos & CSU-Mira Mesa.
2022-present Member, National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC)
2022 World Health Organization's (WHO) Research Front Desk Pilot Technical Research Review Roster
2022 Harvard Medical School Ad Hoc promotions committee
2022 Co-organizer, Sanford Stem Cell Institute Symposium
2022 Australian Government National Health and Medical Research Council (NHMRC) Medical Research Future Fund (MRFF) 2022 Mitochondrial Donation Pilot Program Grant Opportunity Grant Assessment Committee (GAC)
2023-present SBP Graduate School Curriculum Committee
2023-present Fund-raising committee, Newborn Brain Society
2024-2025 Local organizer for annual International Meeting of the Newborn Brain Society

SCIENTIFIC/MEDICAL ADVISORY BOARDS:

1995-2003	Late Onset Tay Sachs Foundation
1997-1999-	Co-Founder & Co-Director, New England Stem Cell Consortium
1999-2004	Myelin Project
1999-2001	Fascio-Scapulo-Humoral Muscular Dystrophy Foundation
2001-2013	Founding Co-Chairman, Children's Neurobiological Solutions
2001-2004	Board of Directors, Children's Neurobiological Solutions
2001-2012	National Brain Tumor Society
2001-2004	Gene Therapy Advisory Board, Hunter's Hope
2001-2004	Neurological Diseases Subcomittee, American Society for Gene Therapy
2002-present	National Tay-Sachs & Allied Diseases Association
2002-2004	ViaCell, Inc.
2002-2010	RxGen, Inc.
2002	Massachusetts General Hospital Regeneration Unit
2002-2009	Chair, Stem Cell Biology Category, Brain Tumor Society
2002-2006	Baylor University Regeneration Center
2002-present	Editorial Board of the *Handbook of Stem Cells (Adult & Fetal stem cells)*
2003-present	Founder, Director, Coordinator: Southern California Stem Cell Consortium
2003-2008	Research Advisory Committee C, March of Dimes
2003-present	Scientific Program Advisory Group (*SPAG*), *Sanford Burnham Prebys Medical Discovery Institute (SBP)*
2004-present	Steering/Leadership Committee, *Sanford (San Diego) Consortium for Regenerative Medicine (SCRM)*
2004-2012	Executive Leadership Team, SBP (folded into *SPAG* – see above)
2004	Co-Chairman of the External Evaluation Team on your NIH SEPA proposal, 'Cancer, Stem Cells & Regenerative Medicine.
2004-2008	Scientific Advisory Board, Stem Cell Research Foundation of the American Health Assistance Foundation
2004-2017	Science Advisory Board, Genetics Policy Institute (GPI)
2004-present	Scientific Advisory Board, American Parkinson's Disease Association (APDA)
2005-2019	Research Task Force, Rady Children's Hospital Health Science Center of San Diego
2006-2008	Member, NIH Blueprint for Neuroscience Research (Neurodegeneration) Working Group
2006-2012	Scientific Advisory Board, Hospira, Inc.
2006-2009	Scientific Advisory Board, International Symposia on Neuroprotection & Neurorepair, Magdeburg, Germany.
2006-present	Fellow selection committee, California Institute for Regenerative Medicine Fellowships, SBP
2006-2012	Center Leadership Team, Del E. Webb Neuroscience, Aging, Stem Cell Research Center, SBP (incorporated in SBP's SPAG)
2006-2010	Scientific Advisory Committee, Cambridge HealthTech Institute
2006-2009	Scientific Advisory Board, StemMedica, Inc.
2006-2021	Member of Inaugural Founding Editorial Board, *Cell Stem Cell*s
2007-2019	Clinical Translational Science Administration Research Advisory Committee, University of California-San Diego School of Medicine
2007-present	Founding Editorial Board, *Current Protocols in Stem Cell Biology*
2007-2019	Scientific Advisory Committee, Neurosurgery Neuroscience Consortium (NNC), UCSD Division of Biological Sciences & Dept. of Neurosurgery, UCSD
2007-2010	California Stem Cells Scientific Advisory Board
2008-2010	Lifeboat Foundation Scientific Advisory Board
2008-2010	Scientific Advisory Board, Center for Stem Cell Biology & Regenerative Medicine, Thomas Jefferson University
2008-2010	Scientific Advisory Board, Texas A&M Health Science Center College of Medicine's Institute for Regenerative Medicine

2008-2012 NIH/NINDS -- Charter member – Clinical Neuroplasticity & Neurotransmitter (CNNT) study section
2007-2009 Embryonic/Somatic Stem Cell & Tissue Engineering Committee, American Society for Gene Therapy (ASGT)
2008-2012 FDA Cell, Tissue, & Gene Therapy Advisory Committee (CTGTAC)
2008-2012 Chairman, The Scripps Research Institute Shared Stem Cell Research Lab
2009-2012 California Institute for Regenerative Medicine (CIRM) Presidential Scientific Advisory Board & Leadership Committee
2010-2012t Jacob's Cure (for Canavan's and associated diseases)
2010-present International Society for Stem Cell Research Inquiry Review Panel
2011 Acting Chair, FDA Cellular, Tissue, & Gene Therapies Advisory Committee (CTGTAC)
2011-2013 Steering Committee, NIH's LINCS (Library of Integrated Network-based Cellular Signatures) Program
2011-2021 *Cell Stem Cell,* translational stem cell advisory committee
2011 Advisory Board, NIH course "Frontiers in Stem Cells in the Neurosciences"
2012-2016 HeadNorth Foundation for Spinal Cord Injury
2013 Advisor, Global Technology Community, 10th Stem Cell Summit, April 29-30, 2013, Boston MA
2013 External review review committee, Institute for Regenerative Medicine (IRM) at the University of Pennsylvania, a university-wide, multi-school, multidisciplinary institute
2013 Rapporteur & Expert evaluator, European Union (EU) – Innovative Medicines Initiative (IMI) – Selection of European Human Induced Pluripotent Stem Cell Bank
2013- Annual Stem Cell Summit (sponsored by GTC)
2013 Invited, International Scientific Committee, Agenzia di Ricerca per la Sclerosi Laterale Amiotrofica (AriSLA), the Italian Foundation for Research on ALS
2013- Advisory Board, UCSD Clinical and Translational Research Institute (CTRI) Education Division
2012-2014 Chairman, FDA Cellular, Tissue, & Gene Therapies Advisory Committee ((CTGTAC)
2014 Co-Director, NIH-Sponsored National Networking Course (to bring under-represented minorities into NeuroAIDS field)
2015-2016 Expert Panel, Bipartisan Policy Center (a bipartisan advisory committee to Congress to help expedite the rational approval of novel cell-based therapies)
2015 Chairman, *Fondazione Italiana di ricerca per la Sclerosi Laterale Amiotrofica (AriSLA)* grant review & international scientific advisory committee (Italian ALS society)
2015-2020 Takeda-Sanford Innovation Alliance Joint Advisory Committee
2016 Key Opinion Leader (KOL) – Intrexon/Histogen clinical trial planning
2016 Scientific Advisory Board, FloDeignSonics (acoustic-based cell separation)
2016 Chairman, New York State Department of Health & the Empire State Stem Cell Board (NYSTEM) Peer Review Panel (Pluripotency, Chromatin and Epigenetics Panel)
2017-present External Scientific Consultant, NIH's Intestinal Stem Cell Consortium (ISSC) (NIDDK/NIAID)
2017-present Director, Yokohama Medical College (Japan)-Sanford Burnham Prebys scientific exchange program
2017-23 SAB member, Zhuhai Nobel Institute of Biomedicine (NIB), Zhuhai, China
2017-present SAB member, *Americans for Cures Foundation*
2018 Founding Chief Scientific Officer, non-profit *International Academy for Translational Medicine*
2019 Graduate from the *Health Leadership Academy (HLA)* (UCSD)
2019-present Chairman, Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository for NIH
2021 NIH/National Human Genome Research Institute (NHGRI) workshop on the ethical, legan, & social implications (ELSI) of the creation & use of induced pluripotent stem cell (iPSC) lines.
2022-present Member, National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC)
2022 World Health Organization's (WHO) Research Front Desk Pilot Technical Research Review Roster
2022 Harvard Medical School Ad Hoc promotions committee

2022 Australian Government National Health and Medical Research Council (NHMRC) Medical Research Future Fund (MRFF) 2022 Mitochondrial Donation Pilot Program Grant Opportunity Grant Assessment Committee (GAC)

ELECTED/SELECTED NATIONAL/INTERNATIONAL PROFESSIONAL POSITIONS:

1997-1999 Councilor, American Society For Neural Transplantation
1996-2008 Ethics Committee, American Society for Neural Transplantation
1998-2002 Member, Awards Committee, Child Neurology Society
1999-2001 National Secretary, American Society of Neural Transplanation & Repair
2000-2004 Neural disorders gene therapy scientific committee, American Society for Gene Therapy
2002-2006 Permanent member/reviewer, NICHD's Mental Retardation Research Subcommittee
2002-present Scientific Advisory Committee, National Tay-Sachs & Allied Diseases Association
2002-2008 Chair, Stem Cell Biology Category, National Brain Tumor Society
2003-2008 Research Advisory Committee C, March of Dimes
2004-2016 Science Advisory Board, Genetics Policy Institute (GPI)
2004- 2008 Scientific Advisory Board, Stem Cell Research Foundation of the American Health Assistance Foundation
2004-2012 Section Editor, Developmental Biology*, Experimental Neurology*
2007-2009 Embryonic/Somatic Stem Cell & Tissue Engineering Committee, American Society for Gene Therapy (ASGT)
2007-2021 Inaugural Founding Editorial Board, *Cell Stem Cells*
2007-present Founding Editorial Board, *Current Protocols in Stem Cell Biology*
2008-2009 Elected President of the American Society for Neural Therapeutics & Repair (ASNTR)
2008-2012 Member, FDA Cell, Tissue, & Gene Therapy Advisory Committee
2010-present International Society for Stem Cell Research Inquiry Review Panel
2011 Acting Chair, FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2011-2013 Steering Committee, NIH's LINCS (Library of Integrated Network-based Cellular Signatures) Program
2011-2021 *Cell Stem Cell,* translational stem cell advisory committee
2012-present Section Editor, Development & Stem Cell Biology*, Experimental Neurology*
2013 Co-Chair, 2013 9th World Stem Cell Summit, San Diego, CA
2013 Translational Stem Cell Consortium Delegate, Centre for the Advancement of Sustainable Medical Innovation (CASMI)
2012-2014 Chairman, FDA Cellular, Tissue, & Gene Therapies Advisory Committee
2015 Ad hoc member, National Institute of Mental Health, (NIMH), NIH, Board of Scientific Counselors (BSC)
2015-2016 Expert panel, Bipartisan Policy Center (a bipartisan advisory committee to Congress to help expedite the rational approval of novel cell-based therapies)
2015 Chairman, *Fondazione Italiana di ricerca per la Sclerosi Laterale Amiotrofica (AriSLA)* grant review & international scientific advisory committee (Italian ALS society)
2015-present Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository at NIH (Chairman, starting 2019)
2016 Chairman, New York State Department of Health & the Empire State Stem Cell Board (NYSTEM) Peer Review Panel (Pluripotency, Chromatin and Epigenetics Panel)
2019-present Chairman, Scientific Advisory Committee (SAC) of the National Institute of General Medical Sciences (NIGMS) Human Genetic Cell Repository for NIH
2019 Diplomate of the *Health Leadership Academy (HLA)*
2020 Chairman, Grant Review Panel for Investigator Initiated Research Projects & Innovative, Developmental, or Exploratory Activities for the New York State Department of Health & the Empire State Stem Cell Board's New York Stem Cell (NYSTEM) program.
2021 Moderator, NIH/National Human Genome Research Institute (NHGRI) workshop on the ethical, legan, & social implications (ELSI) of the creation & use of induced pluripotent stem cell (iPSC) lines.

2022-present Member, National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC)
2022 World Health Organization's (WHO) Research Front Desk Pilot Technical Research Review Roster
2022 Australian Government National Health and Medical Research Council (NHMRC) Medical Research Future Fund (MRFF) 2022 Mitochondrial Donation Pilot Program Grant Opportunity Grant Assessment Committee (GAC)

EDITORIAL BOARD MEMBERSHIPS:

1978-80 Assistant contributing editor, *Diagnostic Services Newsletter*, University of Pennsylvania
1984-85 Contributing editor, *News from the Medical Services*, Boston

1997-present *Experimental Neurology* (Elsevier)
1998-2001 *inScight*, *On Line Science Magazine*
1999-2016 *Journal of Neuroscience Research*
2000-2003- *E-Biomed: The Journal of Regenerative Medicine*
2001-present *Journal of Molecular Neuroscience*
2001-present *NeuroMolecular Medicine*
2002-2007 *International Journal of Developmental Neuroscience*
2006-2010 *Restorative Neurology & Neuroscience*
2002-present *Handbook of Stem Cells*
2002-2012 *Stem Cells* (Wiley)
2004-2012 Section Editor, Developmental Biology*, Experimental Neurology*
2004-2018 *Stem Cell Reports & Reviews* (Springer)
2004-2012 *International Review of Neurobiology*
2004-present *Neurobiology of Disease* (Elsevier)
2004-present *Cell Transplantation* (Section Editor)
2005-present *Molecular Therapy* (Cell Press)
2006-2015 *Regenerative Medicine*
2006-2021 *Cell Stem Cells* (Cell Press) (member of the inaugural founding editorial board)
2011-present, translational stem cell advisory committee
2007-present *Current Protocols in Stem Cell Biology* (Wiley) (a founding editorial board member)
2010-2015 *Recent Patents in Regenerative Medicine*
2010-present *Cell Medicine*
2012-present Section Editor, Development & Stem Cell Biology, *Experimental Neurology*
2012-present *Experimental & Molecular Medicine(EMM)* (Nature Publishing Group)
2013-present Associate Editor, *Frontiers in Pediatrics (Neonatology section)*
2013-2021 *Editor, Frontiers in Neurology*
2023-present Associated Editor, *Frontiers in Neurology (Pediatric Neurology Section)*
2014-present *Enliven: Journal of Stem Cell Research & Regenerative Medicine*
2014-2020 *Journal of Clinical Medicine (JCM)*
2014-2016 *Stem Cell Research & Therapy*
2019-present *Stem Cell Translational Medicine (SCTM)*
2019-present *StemJournal* (Associate Editor/Section Editor)

SOCIETY MEMBERSHIPS:

Phi Beta Kappa
Sigma Xi National Research Honor Society
Fellow of the American Society for Neural Transplantation (Founding member) – renamed American Society for Neural Therapy & Repair
(Ethics Committee, American Society for Neural Transplantation, 1995)
(Councillor, 1997-1999)
(Secretary, 1999-2001)

(President, 2008-09
Charter member, Society of Regenerative Medicine
Medical/Scientific Advisory Committee, Late Onset Tay-Sachs Foundation
Children's Neurobiological Solutions (Founding member of scientific advisory board [SAB])
American Academy of Science
Child Neurology Society (1998-2002, Awards Committee; 2015-2018 Research Committee)
American Society for Cell & Gene Therapy (Stem Cell Committee)
Fellow of the American Academy of Pediatrics (FAAP) (inducted 2007)
Society for Neuroscience
Society for Developmental Biology
Physicians for Social Responsibility
Eastern Society for Pediatric Research (1989-2003)
Society for Pediatric Research
American Society for Neurochemistry
Epilepsy Association of Massachusetts Professional Providers Council
American Federation for Clinical Research
New England Stem Cell Consortium (Founding Director)
New England Society of Electron Microscopy
Dana-Farber/Harvard Cancer Center
Transverse Myelitis Association
Coalition for the Advancement of Medical Research (CAMR)
Southern California Stem Cell Consortium (Founding Director)
International Society for Stem Cell Research (ISSCR)
Genetics Policy Institute (GPI) (Scientific Advisory Board)
California Association of Neonatology
American Alliance for Regenerative Medicine (ARM) (Founding member & Board of Trustees)
Sanford Consortium for Regenerative Medicine (Founding member; Founding Scientific Steering/Leadership Committee member)
International Child Neurology Association
Association of American Physicians (AAP) (elected and inducted, 2018)
American Institute for Medical & Biological Engineering (AIMBE) (elected & inducted, 2021)
Newborn Brain Society

JOURNALS FOR WHICH HAVE SERVED AS A REVIEWER:

Science
Science Translational Medicine
Nature
New England Journal of Medicine
Neuron
Nature Medicine
Nature Biotechnology
Nature Neuroscience
Nature Methods
Nature Cell Biology
Nature Communications
Nature Reviews-Neuroscience
Cell Stem Cell – Inaugural Founding Editorial board member
Cell Reports
Proceedings of the National Academy of Science USA
Lancet
Journal of Clinical Investigation

Journal of Neuroscience
Journal of Neuroscience Research -- Editorial board member
Molecular & Cellular Neuroscience
Stem Cells – Editorial board member (past)
Stem Cell Reports & Reviews – Editorial board member (past)
Molecular Therapy – Editorial board member
Journal of Cerebral Blood Flow & Metabolism
Current Protocols in Stem Cells – Founding Editorial Board Member
Annals of Neurology
Journal of Comparative Neurology
European Journal of Neuroscience
Journal of Neurobiology
Experimental Neurology – Section Editor, Stem Cell & Developmental Biology; Editorial board member
Journal of Molecular Neuroscience – Editorial Board Member
Pediatric Research
Pediatrics
Journal of Pediatrics
Developmental Dynamics
Neurobiology of Disease – Editorial Board member
Cell Transplantation – Editorial Board member
Molecular Medicine Today
Brain Research
Journal of Neurophysiology
American Journal of Pathology
Journal of Urology
Journal of Neuroscience Methods
Neurosurgery
Developmental Brain Research
American Journal of Pathology
Current Protocols in Neuroscience
Molecular Psychiatry (Nature Press)
Translational Psychiatry
Frontiers in Neurology – Editorial Board Member (past)
Frontiers in Pediatrics – Editorial Board Member

PERMANENT STUDY SECTION / GRANT REVIEW PANEL MEMBERSHIP

[Note: In 2021, reached NIH's mandated career maximum number of grant review study sections on which a given reviewer may participate].

2003-2007	NIH -- CHHD-C (Developmental Biology Subcommittee), National Institute of Child Health & Human Development Initital Review Group).
1999-2001	Child Neurology Society Awards Committee.
2003-2008	March of Dimes – Study Section/Research Adviorsy Committee C
2003-2008	Stem Cell Research Foundation
1999-2004	Myelin Project
2002-2009	National Brain Tumor Society (Chair, Stem Cell Section)
2001-2013	Children's Neurobiological Solutions (Founding Co-Chair Scientific Advisory Board)
2004-present	American Parkinson's Disease Association
2006-2012	Neurosurgery Neuroscience Consortium (NNC), UCSD Division of Biological Sciences and Dept. of Neurosurgery, UCSD
2008-2012	NIH – Charter member – Clinical Neuroplasticity & Neurotransmitter (CNNT) study section

2008-2014 Member, Acting Chair, 9/11; 2-term Chairman, 2012-2014) FDA -- Cellular, Tissue, & Gene Therapies Advisory Committee
2012-2021 NIH – Recurring, Molecular & Cellular Substrates of Complex Brain Disorders Special Emphasis Panel ZRG1 MDCN-P(57)
2014-2021 NIH – Recurring Special Emphasis Panel–ZRG1 F03B-D(20)L–NIH Biophysical, Physiological, Pharmacological & Bioengineering Neuroscience Fellowship applications
2012-2021 NIH – Recurring ad hoc (because term-limited) – Clinical Neuroplasticity & Neurotransmitter (CNNT) study section
2002-present National Tay-Sachs & Allied Diseases Foundation
2016-2021 NIH – Permanent member, recurring Special Emphasis Panel (SEP) 2017/ZRG1-ETTN-P (13) B, Emerging Technologies & Training in Neurosciences (ETTN), SEP Division of Neuroscience, Development & Aging: "Small Business: Neuroscience Assay, Diagnostics, & Animal Model Development" to review SBIR/STTR applications.
2017-2021 NIH (NIGMS) Recurring Special Emphasis Panel (SEP) 2017/05 ZGM1 RCB-3 (C2) - COBRE Phase II (Centers of Biomedical Research Excellence) (P20).
2017-present NIH External Scientific Consultant evaluating NIH's (NIDDK/NIAID) Intestinal Stem Cell Consortium (ISSC)
2021-present National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC).

GRANTS & GRANTING AGENCIES FOR WHICH HAVE SERVED AS A REVIEWER (INCLUDING ADDITIONAL NIH SERVICE):

Reviewer (Temporary Member, Ad hoc, Special Emphasis Panel), NIH, NINDS, Neurological Sciences & Disorders (NSD)-A study section – 2002
NIAAA/NIH Stem Cell special emphasis study section (2002)
Panelist, NINDS, Stroke PRG (2002)
Reviewer (Temporary Member, Ad hoc, Special Emphasis Panel), NIH, NINDS, Neurological Sciences & Disorders (NSD)-B study section – *recurring reviewe*r
Reviewer (Ad hoc), NIH, NINDS – F31 NRSA applications
National Science Foundation
Division of Stroke & Trauma, NINDS, NIH, Concept Plan Reviewer, Advisory on "Development of Neuronal Precursor Cells for Transplantation after CNS Trauma"
Hereditary Disease Foundation
Retinitis Pigmentosa Foundation of Canada
American Paralysis Association/Christopher Reeve Foundation
Kentucky Spinal Cord and Head Injury Research Trust
Paralyzed Veterans of America/Spinal Cord Research Foundation
Comitato Promotore Telethon, Rome, Italy
Myelin Project (Scientific Advisory Board)
Canavan Research Fund
A-T Children's Project
National Brain Tumor Society – Chairman of Stem Cell Section
Permanent member & reviewer, NICHD's Mental Retardation Research Subcommittee (2002-2006)
Permanent member, Section on Developmental Biology, NICHD (2002-2006)
NINDS, Ad Hoc Reviewer, Molecular, Cellular & Developmental Neurosciences (MCDN-6)
Recombinant DNA Advisory Committee (RAC), National Institutes of Health, ad hoc reviewer (2003)
NICHHD Development Special Emphasis Panel ZHD1 MRG-C(27), Mental Retardation Research Center RFA, March 17, 2003
Association Francaise contre les Myopathies
Stem Cell Research Foundation of the American Health Assistance Foundation
NIH Neural Cell Fate (NCF) study section (ad hoc, 2005)
Keck Foundation

Special Emphasis Panel ZHL1 CSR-H (01) for NHLBI (2005)
Special Emphasis Panel/Scientific Review Group 2006/01 ZNS1 SRB-M for NINDS (2005)
NIH/NIBIB, ZEB1 OSR-C (A1) S Loan Repayment Proposals (LRP), (May 18, 2007)
NIH -- Special Emphasis Panel IRG/SRG: ZNS1 SRC (99) for NINDS (June, 2007)
NIH – Neurological Sciences & Disorders K (NINDS) – ad hoc – June 28, 2007
NIH -- CNNT (Clinical Neuroplasticity & Neurotransmitter) Study Section – ad hoc – Feb. & June 2008
NIH -- Ad Hoc Reviewer, Stimulus Package (ARRA) (2009)
NIH – Special Emphasis Panel, ZAG1 ZIJ-6 04 (Pathogenesis of Age-Dependent CNS Degeneration) (June 29, 2010)
NIMH – Special Emphasis Panel, ZMH1 SRC(99), NOT-MH-10-024: Competitive Revision Applications for a Repository Supporting Stem Cell Research Relevant to Mental Disorders (2010)
NIH – CNNT (Clinical Neuroplasticity & Neurotransmitter) Study Section – ad hoc (Oct. 1-2, 2012)
NIH Intramural Center for Tobacco Regulatory Science (ICTRS) (Oct. 22, 2012)
NIH – Molecular & Cellular Substrates of Complex Brain Disorders Special Emphasis Panel ZRG1 MDCN-P(57) (Nov. 5-8, 2012)
NIMH – 2013/01 ZMH1 ERB-C (03) S - Center for Genomic Studies on Mental Disorders (Nov. 5, 2012)
NINDS -- Transformative Research applications (TRA) (Jan. 25, 2013)
NIH – Molecular & Cellular Substrates of Complex Brain Disorders Special Emphasis Panel ZRG1 MDCN-P(57) (March 29, 2013)
Rapporteur & Expert Evaluator European Union (EU) – Innovative Medicines Initiative (IMI) – Selection of European Human Induced Pluripotent Stem Cell Bank (2013)
NIH – Molecular & Cellular Substrates of Complex Brain Disorders Special Emphasis Panel ZRG1 MDCN-P(57) (July 19, 2013)
NIEHS Special Emphasis Panel: Review Committee for Environmental Exposure and Neurodegenerative Diseases (Mar 18-19, 2014- Chapel Hill NC)
International Scientific Committee, Agenzia di Ricerca per la Sclerosi Laterale Amiotrofica (AriSLA), the Italian Foundation for Research on ALS – April 25, 2014 & October 27-28, 2014
American Parkinson's Disease Association – May 5, 2014
NINDS ZRG1 BDCN N91 S Special Emphasis Panel – May 12, 2014
Brain Canada Platform Support Grants Selection Committee – June 19, 2014
NIMH 2014/08 ZMH1 ERB-L (04) R - NIH BRAIN Initiative Review Panel – June 23, 2014
NIH ZRG1 F03B-D (Special Emphasis Panel-NRSA Fellowships) – June 26-27, 2014
NIH ZRG1 BDCN N03 (Special Emphasis Panel) – August 8, 2014
NIH ZRG1F03BD(20)L (Special Emphasis Panel-NRSA Fellowships – October 30-31, 2014
Ad hoc review member, Board of Scientific Counselors (BSC), National Institute of Mental Health, (NIMH), NIH, (February 3, 2015).
NIH ZRG1 F03B-D(20)L - Special Emphasis Panel-NIH Biophysical, Physiological, Pharmacological & Bioengineering Neuroscience Fellowship applications (March 2-3, 2015)
NIH ZRG1 BDCN-W (02) – Special Emphasis Panel – Brain Disorders and Clinical Neuroscience – Neuroblastomas, Glioblastomas, and Multiple Sclerosis and Viruses – (April 2, 2015)
American Parkinson's Disease Association (APDA), May 4, 2015.
NIH (NINDS) Scientific Review Group/Study Section 2015/10 Clinical Neuroplasticity and Neurotransmitters (CNNT) – June 11-12, 2015.
Expert evaluator, European Union (EU) – Innovative Medicines Initiative (IMI) – Selection of European Human Induced Pluripotent Stem Cell Bank (2015)
NIH (NIMH) 2015/08 ZMH1 ERB-L (06) R – BRAIN Initiative: Development & Validation of Novel Tools to Analyze Cell-Specific & Circuit-Specific Processes in the Brain – June 21-22, 2015
Chairman & Rapporteur, *Fondazione Italiana di ricerca per la Sclerosi Laterale Amiotrofica* grant review committee (Italian ALS society) (October 26-27, 2015)
NIH (NINDS) Scientific Review Group/Study Section 2016/10 Clinical Neuroplasticity and Neurotransmitters (CNNT) – October 28-29, 2015.
NIH (NIMH) – ZMH1 ERB-L (01) S -- Silvio O. Conte Centers for Basic or Translational Mental Health Research -- 2016/01 – November 10, 2015.

NIH Fogarty Global Brain Disorders (ZRG1BDCN N55) study section -- March 24-25, 2016.
Fondazione Italiana di ricerca per la Sclerosi Laterale Amiotrofica (AriSLA) grant review & international scientific advisory committee (Italian ALS society) (May 13, 2016)
American Parkinson's Disease Association – May 23, 2016
NIH 2016/10 CNNT (Clinical Neuroplasticity & Neurotransmitters) Study Section – June 16-17, 2016
Chairman, New York State Department of Health & the Empire State Stem Cell Board (NYSTEM) Peer Review Panel (Pluripotency, Chromatin and Epigenetics Panel) (September 28-30, 2016)
Cerebral Palsy Alliance Research Foundation (October 4, 2016)
NIH Special Emphasis Panel (SEP) 2017/ZRG1 ETTN-P (13) B, Emerging Technologies & Training in Neurosciences (ETTN), Division of Neuroscience, Development & Aging, "Small Business: Neuroscience Assay, Diagnostics, & Animal Model Development" – November 29, 2016
NIH Special Emphasis Panel (SEP) 2017/05 ZMH1 ERB-M (03) R - BRAIN Initiative: Development & Validation of Novel Tools to Analyze Cell-Specific & Circuit-Specific Processes in the Brain – February 22, 2017
NIH (NINDS) 2017/05 CNNT (Clinical Neuroplasticity & Neurotransmitters) Study Section – February 23-24, 2017.
NIH (NIGMS) Special Emphasis Panel (SEP) 2017/05 ZGM1 RCB-3 (C2) - COBRE Phase II (Centers of Biomedical Research Excellence) (P20) – March 8, 2017.
NIH Special Emphasis Panel (SEP) 2017/05 ZRG1 ETTN-P (13) B, Emerging Technologies & Training in Neurosciences (ETTN), Division of Neuroscience, Development & Aging: "Small Business: Neuroscience Assay, Diagnostics, & Animal Model Develop`ent" – April 3, 2017
American Parkinson's Disease Association – May 22, 2017
NIH (NINDS) 2017/05 CNNT (Clinical Neuroplasticity & Neurotransmitters) Study Section – June 22-23, 2017.
NIH Special Emphasis Panel (SEP) 2017/05 ZRG1 ETTN-P (13) B, Emerging Technologies & Training in Neurosciences (ETTN), Division of Neuroscience, Development & Aging: "Small Business: Neuroscience Assay, Diagnostics, & Animal Model Development" – July 13, 2017.
NIH (NIGMS) Special Emphasis Panel (SEP) 2017/05 ZGM1 RCB-3 (C2) - COBRE Phase II (Centers of Biomedical Research Excellence) (P20) – July 14, 2017.
NIH (NIMH) Special Emphasis Panel (SEP) "Continuation of the Center for Genomic Studies on Mental Disorders (U24)" – July 21, 2017.
NIH External Scientific Consultant to evaluate NIH's (NIDDK/NIAID) Intestinal Stem Cell Consortium (ISSC) – September 13, 2017.
NIH Special Emphasis Panel (SEP) ZRG1 MDCN-P(57), *Cellular & Molecular Biology of Complex Brain Disorders*, Division of Neuroscience, Development and Aging (DNDA) -- November 2-3, 2017.
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – December 5, 2017.
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2018/01 ZRG1 ETTN-P (90)) Neuroscience Diagnostics and Assay Development) Small Business Teleconference – December 19, 2017.
NIH – Special Emphasis Panel (SEP) (2018/01 ZRG1 BDCN-N (06) Pre & Postnatal Neurologic Disorders – December 19, 2017.
NIH -- Clinical Neuroplasticity and Neurotransmitters (CNNT) Study Section (2018/05) – February 22-23, 2018
NIH (NIGMS) Special Emphasis Panel (SEP) 2018/05 ZGM1 RCB-3 (2A) - COBRE Phase II (Centers of Biomedical Research Excellence) (P20) – March 1-2, 2018.
Expert evaluator, European Union (EU) – Innovative Medicines Initiative (IMI) – Selection of European Human Induced Pluripotent Stem Cell Bank – March 21-22, 2018 (Brussels)
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – March 30, 2018.
American Parkinson's Disease Association – May 17, 2018 – 32 hrs.
NIH – Special Emphasis Panel (SEP)/Scientific Review Group 2018/10 ZRG1 BDCN-W (05) M - Member Conflict: Neurodevelopment and Psychiatric Disorders – June 27-28, 2018
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – July 12-13, 2018.

NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2019/01 ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – December 6-7, 2018.
NIH (NIGMS) Special Emphasis Panel (SEP) 2019/05 ZGM1 RCB-3 (C2) - COBRE Phase II (Renewal of Centers of Biomedical Research Excellence) (P20) – March 7-8, 2019.
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2019/01 ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – March 20-21, 2019
American Parkinson's Disease Association (APDA) Grant Review – May 16, 2019
Ad hoc review member, Board of Scientific Counselors (BSC), National Institute of Mental Health, (NIMH), NIH, (May 28, 2019)
NIH (NIGMS) Special Emphasis Panel (SEP) 2019/05 ZGM1 RCB-3 (C2) - COBRE Phase II (Renewal of Centers of Biomedical Research Excellence) (P20) – July 9, 2019.
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2019/01 ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – July 15-16, 2019
NIMH – 2013/01 ZMH1 ERB-C (03) S - Center for Genomic Studies on Mental Disorders (Nov. 7, 2019)
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2019/01 ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – Nov. 14-15, 2019
NIH – Special Emphasis Panel (SEP) to review SBIR/STTR applications (2019/01 ZRG1 ETTN-P(13)) Neuroscience Assay, Diagnostics and Animal Model Development) – March 12-13, 2020
American Parkinson's Disease Association (APDA) Grant Review – May 16, 2020
Canadian Stem Cell Network Grant Program on Accelerating Clinical Translation; Fueling Biotechnology Partnerships; Innovation Research Program for Early Career Investigators, and Translation and Society Team Awards – June 29, 2020
NIGMS Review of COBRE Phase 1 Special Emphasis Panel/Scientific Review Group 2020/10 ZGM1 RCB-9 (C1) – July 10, 2020
NIH External Scientific Consultant to evaluate NIH's (NIDDK/NIAID) Intestinal Stem Cell Consortium (ISSC) – October 15, 2020.
American Parkinson's Disease Association (APDA) Grant Review – May 20, 2021
NIH External Scientific Consultant to evaluate NIH's (NIDDK/NIAID) Intestinal Stem Cell Consortium (ISSC) – March 22-23, 2022.
National Tay Sachs & Allied Disease (TSAD) Foundation grant reviews, April 2022.
American Parkinson's Disease Association (APDA) Grant Review – May 19, 2021.
National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC) – June 24, 2022.
Australian Government National Health and Medical Research Council (NHMRC) Medical Research Future Fund (MRFF) 2022 Mitochondrial Donation Pilot Program Grant Opportunity Grant Assessment – November 15, 2022
National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC) – November 18, 2022.
NIH External Scientific Consultant to evaluate NIH's (NIDDK/NIAID) Intestinal Stem Cell Consortium (ISSC) – March 22-23, 2023.
California Institute for Regenerative Medicine (CIRM) Training Program (pre-docs, post-docs, clinical fellows) – April 10-11, 2023
National Institute of Neurological Diseases & Stroke (NINDS) Human Cell & Data Repository GMP Biospecimen Review Access Committee (BRAC) – April 14, 2023
The Netherlands Organisation for Scientific Research (NWO), Gravitation Program – May 5, 2023
American Parkinson's Disease Association (APDA) Grant Review – May 18, 2023
National Tay Sachs & Allied Diseases (NTSAD) Foundation Grant Review – December 11, 2023

TRAINEES IN LABORATORY:

Booma Yandava	Post-MSC student)	4/1/92-97	MBA, CGBP KPMG LLP, consultants
Vu Nugyen	Harvard dental student	4/1-9/10/92	MD-PhD, U. Penn.; dermatologist, Carlsbad
Thomas Clancy	Harvard medical student	6/1-9/22/92; 6/28-8/31/93	Asst. Prof of Surgery, Harvard Medical School
Lori Pai	Harvard dental student	7/1/92-8/31/92	Oncologist, Tufts Medical Center
Andrew Ko	Hopkins medical student	6/1-9/10/92	Professor, Dept of Medicine, UCSF
Christa Norman	Wellsley Premedical student	6/1/92-8/31/92	MD, NYU Med School
Kevin Kim	Harvard dental student	9/1/92-12/31/92	MD, UVa Med School
Allegra Brosca	Premedical student	6/28/93-9/30/93	biotech
Gaelle Guillerm	Foreign medical student	6/28/93-9/30/93	Hematologist, Morvan Hospital, France
Jonathan Flax	Post-doctoral fellow	10/1/93-10/1/98	Prof., University of Arizona
Stephen Servoss	Harvard Med Student	6/1/94-6/1/95	Cardiologist, Boca Raton Regional Hospital
Kook In Park	Neonatologist on research sabbatical	9/14/94- 9/1/97	Professor, Yonsei University, S. Korea; Neonatologist
Carlos Rosario	Post-doctoral fellow	3/20/94-6/30/95	Neurologist, Santa Ana, CA
Sanjay Aurora	Post-doctoral fellow	7/1/94-12/31/98	Director, North Shore Newborn Nursery
Sahar Nissim	Harvard honors thesis student; Harvard MD-PhD student	6/1/94-6/1/96	Gastroenterologist; Prof; Brigham & Women's Hosp., Harvard Med. Sch.
Kurtis Auguste	Harvard honors thesis student; Ford Scholar; Harvard grad & UCSF med student	10/22/94-6/1/98	Prof., Dept. of Neurosurgery, UCSF Director, Pediatric Epilepsy Surgery Program Chief of Surgery, Benioff Children's Hosp
Shaoxiong Liu	Post-doctoral fellow	5/15/95- 7/1/98	Clinical Prof., Tufts Medical Center
Jason Comander	Harvard premedical stud.; Ford Scholar	9/11/95-2/1/96	Prof, Ophthamology, Harvard Med Sch.
Jamie Imitola M.D.	Post-Doc (jointly with S. Khoury)	9/98-2/03	Vice Chair for Research, Dept of Neuro; Director, Div of Translational Neuroimmunology, U. Conn
David Tsai	Harvard honors thesis student & Stanford MSc student	6/2/96- 10/1/97	Vinson & Elkins intellectual property litigator
Anne Marie Wills	Columbia P&S medical student	6/16-8/15/97	Neurologist, Mass Gen. Hosp, Harvard
Clemence Simonin	Medical student	7/3-9/30/97	M.D. Nancy, France
Lori Billinghurst	Kingston, ON med thesis student	6/9-8/15/97; 5/25-9/1/98	Pediatric Neurologist, Children's Hosp of Phila.
Kate Bower	Wellsley premed student	1/1/98- 6/1/00	Attending Neonatologist, Prof., Albany Med Sch
David Ramsey	Harvard honors thesis student	4/1/98-9/1/2000	Ophthamologist, Johns Hopkins
Erin Lavik	MIT grad student (co-advisor)	1/98-7/1/01	Assoc. Prof., Bioengineer, Case-Western
Amir Nashat	MIT grad student (co-advisor)	1/98-10/02	Venture Capital
Karen Aboody	Post-doc	7/1/98-6/30/01	Professor, City of Hope, CA
Jitka Ourednik	Post-doc	10/1/98-6/30/02	Research specialist, SBP
Vaclav Ourednik	Post-doc	10/1/98-6/30/02	Research specialist, SBP
Barbara Tate	Asst. Prof. on Sabbatical	7/1/99-6/30/02	CSO, Friedrich Ataxia Research Alliance
Y.D. (Ted) Teng	Post-doc	7/1/99-6/30/01	Assoc Prof, Harvard Med Sch; Head, Neural Stem Cell Lab, Dept. Neurosurg, BWH
Ken Masters	Pre-med student (Rice College)	6/15-8/25/99	MD, Sage Associates; health care & research for Native American communities
Daniel Wyshnowski	Masters student, Boston University	10/99-7/1/00	M.D., U. Mass, physician
J. Lille Tidwell	Wake Forest visiting grad student	5/30/00-9/1/00	U.S. Patent Office Examiner
Kadir Erkman	Brigham Neurosurgical resident	6/1/00-03	Neurosurgeon, Dartmouth-Hitchcock
Mahesh Lachyankar	Post-doc	6/1/00-7/1/02	Senior Scientist, Abbott Biores. Center
Mary K. White	Senior thesis student (Princeton)	6/1/00-4/30/01	Physician
Mark Parker	Post-Doc	7/1/01-03	Lecturer, Otology/Laryngology, Harvard Med; Asst Prof, Tufts Med; Director, Audiology, St. Elizabeth's Med Ctr
Eric Herlenius	Post-Doc	7/1/01-7/1/02	Prof. of Peds, Karolinska Inst., Stockholm; Dept Women's & Children's Health; Neonatologist; Group Leader, Neonatal Resp Research Group
Angeline Serra	Grad Student	1/15/02-6/07	Attachée for Science & Higher Ed at French Embassy in Malaysia
Jean Pyo Lee	Post-Doc & Staff Scientist	7/1/02-7/1/10	Assoc. Professor, UC-Irvine.
Franz-Josef Mueller	Post-Doc	3/02-6/06	Assoc. Prof, Zentrum fur Integrative Psychiatrie, Germany
Rajiv Saigal	Grad Student (shared with YD Teng)	6/02-6/09	Neurosurgeon, UCSF
Jianxue Li	Post-doc	1/03-2/05	Instructor, Harvard Medical School

Ryan M Fryer	Post-doc	1/03-12/03	Senior Principal Scientist, Boehringer-Ingelheim
Stephan Yip	Post-doc	11/03-6/03	Prof., Med., U. British Columbia
Souayah Nizar	Post-doc (part-time)	1/02-6/03	Prof. of Neurol, New Jersey Med. School
Xuejun Parsons	Post-Doc	4/1/03-6/30/07	CEO, San Diego Inst. Regen. Med.
Rudolfo Gonzalez	Grad student (UCSD)	4/1/03-1/8/08-	Senior Scientist, International Stem Cells, Inc.
Dawn Darling	Junior Faculty (UCSD)	7/1/04-6/30/05	Neonatologist, UK
Matt Singer	Industrial Fellow (Chemicon)	7/1/04-6/30/06	Stem cell project manager (Stemgent)
Angel Lee	Grad student (UCSD)	9/1/04-6/30/09	PhD, UCSD; Biotech
Andrew Crain	Grad student (UCSD)	7/1/06-3/15/12	Founder, CEO; Crain Enterprises LLD
Dustin Wakeman	Grad student (UCSD)	9/1/05- 2/28/10	Director of Development, Virscio
Prithi Rajan	Junior Faculty	7/1/05-2/1/08	Scientific Editor, *Cell Stem Cells* ➔ *NIH ScientificReview Officer*
Sophia Khaldoyanidi	Asst. Prof. (La Jolla Inst. Molec. Med.)	7/1/05-6/30/07	Prof. (Torrey Pines Institute)
Jennifer Katz-Keenan	Post-Doc	7/25/05-6/30/09	Senior Lecturer, Course Director, Old Dominion University
Rahul Jandial	Post-Doc (Neurosurg. Res.); PhD stud	7/1/05-4/29/08	Prof., City of Hope
Ilyas Singec	Post-Doc (Merck Scholar)	9/1/05 4/17/12	Director, Stem Cell Translation Lab, NIH/NCATS➔ CSO, Fluidigm
Nejmi Dilmac	Post-Doc	2/1/06-6/30/09	Sr. Research Scientist, NanoStem
Fred Wu	Post-Doc	4/07-12/07	Physician, Scripps Medical Center
Tsaiwei Olee	Post-Doc	10/06-6/16	Staff Scientist (retired)
Jeffrey Lindquist	Post-Doc	4/06-4/09	Senior Scientist, Medivation
Jochen Maurer	Post-Doc	7/07-6/09	Group Leader, Univ Med Ctr, Freiburg
Bjorn Tyrberg	Post-Doc	1/06-9/07	Assistant Prof. (SBP, Lake Nona)
Brian Tobe	Psychiatry resident/instructor	9/07-	Staff Psychiatrist/Researcher, Kaiser
Runquan Zhang	Grad student	10/09-7/14	Scientist, Arrowhead Pharmaceuticals
Stephanie Parsons	Post-Doc	3/10-6/11	Research Asst. Prof (SBP, Lake Nona)
Sherasi Das	Post-Doc	5/10-2/16	Biotech
Paola Bignone	Visiting Scientist	2/10-	Senior Scientist, Biotime
Gustavo Gutierrez	Post-Doc	3/11-3/12	Asst. Prof., Vrije Universiteit, Brussels
Walter Niles	Visting Scientist	2009-	same
Jeanne Carrol	Ped Resident, Asst. Prof, UCSD	2012-13; 12/16-7/17	Asst. Prof, Neonatology, Rady Childrens;UCSD
Cordula Deurr	Masters student	2012-13	PhD student
Junjie Hou	Post-Doc	2010-14	Faculty, Natl Lab of Biomacromolecules, CAS
Lisette Acevedo	Post-Doc	2009-15	Senior Manager, Clinical Science, Orexigen Therapeutics
Nick Glembotski	Intern	2009-10	Lab Manager, Scripps Health
Mya Thu	Senior scientist/Project Leader	2011-14	MBA, UCSD; CEO, MANTA Instr, Inc.
Wesleigh Georgiana	Post-Doc	6/11-5/14	Medical student, UCSD
Nitzy Bustamontes			Harvard Medical School
Richard Song	Neonatology Fellow, UCSD	6/10-6/13	UCSD Faculty, Div. Neonatology
Cameron Pernia	Grad Student, SBP	4/13-6/19	PhD
	Post-Doc, SBP	6/4/19-1/1/20	Post-Doc (Harvard Medical School)
Ray Solis	High School student	5/13-8/13	Gates Found. Millenium Scholarship (BS➔PhD)
Lina Mastrangelo	Post-doc	6/13-1/20	Senior Scientist
Anthony Orono	Masters student (UCSD)	6/14-2/16	PhD candidate, UC-Davis
Colleen Lopez	Masters Level Intern (CS-Santa Cruz)	9/14-8/15	Post-doc, Yale
Karen Gomes	Masters Level Intern (CS-Santa Cruz)	9/14-8/15	Scientist, Thermo Fisher Scientific
Jigar Patel	Masters Level Intern (CS-Chanel Isl)	9/14-8/15	Scientist II, Thermo Fisher Scientific
Neal Nathan	SENS Research Foundation Scholar	9/14-8/15; 5/17-7/18	Neurology resident (UCSD)
Celine-Lea Halioua	SENS Research Foundation Scholar	6/15-8/15; 6/16-8/16	PhD Candidate, University of Oxford
Rebeca Cavazos	UCSD Fellow in Neonatology	9/15-7/18	Prof, U of New Mexico
Michel Ragy	Asst Lecturer, MD, Minia Univ Hospital	11/15-7/19	Prof., Dermatologist, Egypt
Junka Kouyama	Med student, Yokohama City Univ.	11/15-2/16	Resident, Yokohama Hospital
Stephanie Allen	Visiting Researcher, Marketing Mgr	3/16-2/17	CEO, Allen Enterprises
Marcus Gay	High School Intern	3/16-9/16	Med student,
Brian Nguyen	Medical Student, UCSD	3/16-10/16	Resident,
Wenyi Zhu	SENS Research Foundation Scholar	5/16-7/16	Undergrad, Rutgers Univ (Sch of Pharmacy)
Alefi Kothambawala	SENS Research Foundation Scholar	5/16-7/16	Grad student
Aashka Patel	SENS post-baccalaureate scholar	5/16-7/16	Grad student
Simon Hartt	High School Summer Intern	6/16-7/16	Undergrad, Cornell University
Dilara Ozberak	Undergrad, Yditepe Univ.	6/16-8/16	Grad student
Janessa Law	UCSD Neonatology Fellow	7/16-8/18	Assoc. Prof., Dept of Peds., U of Washington
Era Taoufik	Fulbright Scholar, Hellenic Pasteur Inst	8/16-10/16	Prof., Hellenic Pasteur Inst

Garland Jackson	CIRM Bridges Intern-SDSU	8/16-7/17	Grad student, Biochem, UCSD
Ryan O'Donnell	CIRM MS Bridges Intern-CAL Poly	8/16-5/17	Account Manager, E&K Scientific Products
Rachel Mcvicar	CIRM Intern (SDSU); SBP grad stud	8/16-7/17; 7/1/19-	Same (CIRM Scholar)
Sandra Leibel	Asst. Prof., UCSD, Pediatrics	9/16-	Associate Prof, Pediatrics, UCSD (CIRM scholar)
Jason Adams	UCSD MSTP Undergrad	12/16-8/17	Resident
Jun Yang	Researcher, Keyclone Technologies	1/17-7/17	Same
Yanjun (Erin) Kong	Visiting Med Student Researcher	1/1/17-8/31/19	Same
Seiichiro Honda	Med Student, Yokohama City Univ.	4/17-7/17	Same
Dillon Chen	Ped Neuro Resident, UCSD	5/17-12/17	Attending, Asst Prof, UCSD
Kyung Hee Sohn	Visiting Scienist, Director, Hazardous Substance Analysis Div., Ministry of Food & Drug Safety, Rep of Korea	12/17-12/19	Same
Joshua Sampson	Undergrad, U. Michigan (SENS scholar)	5/1-9/1/19	Medical student
Ruslan Nuryyev	Grad student, SBP	7/1/19-	same
Isaura Villalba	CIRM intern	8/1/19-8/1/19	Fellow, Initiative for Maximizing Student Development
Heather Tolcher	SENS post-baccalaureate scholar	9/1/18-7/1/19	Univ Texas med student
Lori Broderick	Asst. Prof, Dept. of Peds, UCSD	10/1/19-6/30/20	Assoc. Prof., Peds., UCSD
Gwendolyn Clay	Pediatric resident	11/1/197/1/20	Rheumatology Fellow, Case-Western
Kristin Barbour	SENS Research Foundation Scholar	5/1/19-9/1/19	PhD student, U. California-Irvine
John Smithers	CIRM intern	7/1/19-6/30/20	Research Associate, ThermoFisher
Siri Deva Kumar	Undergrad intern, U. of East Anglica	6/1/19-9/1/19	PhD Candidate, U. of Newcastle
Carolyn Barnes	SENS Research Found Post-Bac Scholar	9/1/19-8/31/20	PhD candidate, MIT
Bethany Grimmig	Post-doc	11/1/19-6/1/22	Senior Scientist, Domina Therapeutics
Andres Espinoza	NCI intern (YES program)	11/15/19-	same
Easton Farrell	SENS Research Foundation Scholar	6/1/20-9/30/20	PhD candidate, U. Michigan
Gabrielle Klemme	SENS Research Foundation Scholar	6/1/20-9/30/20	Clinical research coordinator, Mayo Clinic
Anson Zhou	SENS Research Foundation Scholar	6/1/20-9/30/20	Grad student
Rithika Senthilkumar	SENS Research Foundation Scholar	6/1/20-9/30/20	Medical student, University of Pittsburgh
Murial Ross	SENS Research Foundation Scholar	6/15/20-9/30/20	PhD candidate, U. Washington
Matangi Kumar	SENS Research Foundation Scholar	6/30/20-12/31/20	PhD candidate, UC-Berkley
Anne Bush	CIRM intern	8/1/20-9/1/21	Project Scientist, Stemsontx
Asuka Alvarado	CIRM intern	8/1/20-9/1/21	Lab Manager (SBP/SCRM)
Ida Nikjeh-	NCI intern (YES scholar)	9/1/20-8/31/23	Undgergrad, UCLA
Jordan Gomez	NCI intern (YES scholar)	9/1/20-8/31/23	Undergrad, UCLA
Alexa Lauinger	SENS post-baccalaureate scholar	9/1/20-8/31/21	Med student, Carle Illinois College of Medicine
Frank Lovering	SDSU Masters Student	9/1/21-8/1/23	Biotech
Chandler Loshbaugh	CIRM intern	9/1/21-8/31/22	Med student
Andrelia Carmona	CIRM intern	9/1/21-8/31/22	Undergraduate, UCLA
Grace Ann Goetz	SENS intern	6/1/21-8/31/22	PhD student, Harvard-MIT Health Sci & Tech Program
Mohit Aspal	SENS Research Found Post-Bac Scholar	9/1/21-8/31/22	Med Student, Cornell
Jessica McNair	CIRM intern	9/1/22-8/31/23	Undergrad, CSU-SM
Gailan Constantino	CIRM intern	9/1/22-	Undergrad, CSU-SM
Emily Smith	CIRM intern	9/1/22-	NCI Intern (YES Scholar); Undergrad, UCSD
Maya Vasishth	UCSD Biomedical Sci PhD candidate	6/1/22-	same
Nikita Sajeev	SENS post-baccalaureate scholar	9/1/22-8/31/23	Medical student, Washington U.
Nandini Seth	SENS Research Foundation Scholar	6/1/23-8/31/23	Undergrad, UCSD
Temi Ogunyamoju	SENS Research Foundation Scholar	6/1/23-8/31/23	Undergrad, Caldwell U.
Rameen Farrukh	SENS post-baccalaureate scholar	9/1/23	same
Nikita Baumgarten	CIRM COMPASS intern (undergrad URMs)	9/1/23-	same
Kartik Sundaram	SENS post-baccalaureate scholar	11/1/23	same

FORMAL TEACHING:

1984-1985 Chief Medical Resident, Children's Hospital-Boston; served as chief educational officer for hospital; responsible for providing and/or arranging all educational activities and curricula for pediatric house staff

1987-1992 Introduction to Clinical Medicine, the Neonatal & Pediatric exams, Harvard Medical School

1990-2003	Lecturer, Neonatal Core Curriculum for Children's Hospital-Boston Pediatric house staff, Harvard Medical School
1992-1998	Co-Director and Co-Founder, Joint Program in Neonatology Summer Student Research & Education Program, Harvard Medical School
1993-1995 ('96- sub)	Tutor, Genetics, Embryology, & Reproduction course, New Pathway Program, Department of Genetics, Harvard Medical School
1996-2003	Lecturer, Graduate Course on Gene Therapy, Harvard Medical School
1996-2003	Lecturer, Perinatal asphyxia and neonatal seizures, Joint Program in Neonatology (Harvard Medical School)-sponsored continuing medical education out-reach lecture series for community-based pediatricians
1995-2003	Preceptor, Undergraduate Senior Honors Theses in Biology, Biology Concentration, Dept. of Molecular & Cellular Biology, Harvard College
1999-2003	Mentor, Four Directions Summer Research Program for Native American students
1999-2003	High school community/public service learning internship program
2003-present	Founder & Organizer, Annual Christopher Reeve Satellite Symposium on 'Hot Topics' in Stem Cell Biology, Society for Neuroscience
2004-2008	Co-Director, NIH Human embryonic stem cell course (sponsored by The Burnham Institute)
2004-2011	Co-Director, Burnham Institute-sponsored short courses in human stem cell biology (including embryonic stem cells)
2004-2010	Molecular Pathology Graduate Program, University of California, San Diego
2005-2006	UCSD School of Medicine "Modern Techniques of Biomedical Research" (MED260) (1 lecture/year)
2005-2019	Founding director/facilitator/instructor, *Bedside-to-Bench Rounds* (monthly), Neonatology Fellowship Training Program & Neonatology Clinical Training Program, Dept. of Peds., UCSD
2007-present	Biomedical Sciences Graduate Program, University of California, San Diego
2010-present	UCSD Pathology 225/Biomedical Sciences 277 ("Seminars in Molecular Pathology & Current Research Methods") Ph.D. Program (1 lecture/year)
2014	UCSD Course on Scientific Ethics – Ph.D. & Post-Doctoral Training Programs (1-2 panels/year)
2014	Senior Mentor, National Center of Leadership in Academic Medicine (NCLAM) (UCSD faculty)
2016-present	Lecturer, UCSD Stem Cell Course ("A realistic appraisal of cell-based therapies")
2017-present	Writing a competitive NIH grant (including mock study sections), Sanford Burnham Prebys Graduate School
2017-2019	Pediatric Resident's Core Lecture Series, UCSD
2017-present	Insights into scientific publishing, Sanford Burnham Prebys Graduate School
2023-present	Tutorial series for SBP grad school: monthly sessions of "Bedside-to-Bench Rounds: applying basic science concepts to clinical situations".
2023-present	UCSD Course on Scientific Ethics (1-2 sessions/year)

PH.D. THESIS COMMITTEES

- Erin Lavik, Massachusetts Institute of Technology – co-thesis advisor (with Robert Langer) (site of 50% of benchwork) & thesis committee member (1998-2000)
- Amir H. Nashat, Massachusetts Institute of Technology -- thesis committee member (2000)
- Manish Aghi, Harvard Medical School -- thesis committee member (2001)
- Rudolfo Gonzalez, Molecular Pathology, UCSD – thesis advisor/committee leader (2003-2008, PhD awarded).
- Angel Lee, Molecular Pathology, UCSD – thesis committee (2003-2009).
- Andrew Crain, Dept. of Biology, UCSD – thesis advisor/committee leader (2005-2012).
- Dustin Wakeman, Dept. of biology, UCSD – thesis advisor/committee leader (2005-2010).
- Rahual Jandial, Molecular Pathology, UCSD – thesis advisor/committee leader (2006-2008, PhD awarded).
- Joseph Russo – UCSD Bioengineering Ph.D. – thesis committee (2005-2010).
- Mila Komitovas – thesis opponent, Sahlgrenska Academy at Goteborg University (2005)

- Yalda Rahpeymai Bogestål – thesis opponent, Sahlgrenska Academy at Goteborg University (2006)
- Angeline Serra – Curie Institute, Paris – thesis committee member (2007, PhD awarded)
- Runquan Zhang – Sanford-Burnham Medical Research Institute graduate program – thesis co-advisor/committee co-leader (2008-2012) ("Novel synthetic ligands of CCR5 & CXCR4: biochemical charactertization & preclinical studies")
- Jonathan Hertz – Outside thesis examiner for a Ph.D. in Neuroscience, University of Miami ("Retinal Ganglion Cell Differentiation and Transplantation") December 6, 2012.
- Cameron Pernia – Thesis Advisor -- Sanford Burnham Prebys Medical Discovery Institute Graduate Program – 4/1/2013-6/3/19
- Sida Shao – Thesis committee – Dept. of Chemistry, The Scripps Research Institute (TSRI), La Jolla CA – 3/18/19
- Lucie Oriol – Chairman, Thesis Research Proposition Committee – Biomedical Sciences, University of California-San Diego (UCSD)
- Rachael McVicar – Thesis Advisor -- Sanford Burnham Prebys Medical Discovery Institute Graduate Program – 9/1/2018-present
- Ruslan Nuryyev – Thesis Advisor -- Sanford Burnham Prebys Medical Discovery Institute Graduate Program – 9/1/2018-present
- Joanna E. Krzyspiak – Thesis Committee – Albert Einstein Medical School, Dept. of Neuroscience – 11/22/19-9/20/21 ("Determining the optimal donor-cell parameters for cell-based cortical repair")
- Fanny J. Zhou – Chairman, Thesis Research Proposition Committee – Biomedical Sciences, University of California-San Diego (UCSD) – 11/9/2021 ("The Role of Hsf1 in Hematopoietic Stem Cell Aging")
- Anusha Vupputuri – Thesis Committee -- Indian Institute of Technology Kharagpur("Automated Quantification of Ischemic Stroke and its Core-Penumbra from Multiparametric Magnetic Resonance Imaging")
- Maya N Vasishth – Thesis advisor – UCSD Biomedical Sciences PhD candidate – 6/1/22-present

AWARDS, HONORS, & GRANTS TO *MEMBERS & TRAINEES* OF SNYDER LAB:

1999 Soma Weiss Research Award, Harvard Medical School -- to Juan Small (undergraduate student)
1999 Travel Award, American Society for Neural Transplantation & Repair -- to Karen Aboody (post-doc)
2000 Young Investigator Award, American Association of Neurological Surgeons & Congress of Neurological Surgeons -- to Karen Aboody (post-doc)
2000 NIH R43 CA 86768 (SBIR -- Phase 1) -- to Karen Aboody (post-doc)
2000 Parkinson's Action Network/Michael J. Fox Research Grant – to Vaclav Ourednik (post-doc)
2000 Young Investigator Award, Michael J. Fox Foundation – to Vaclav Ourednik (post-doc)
2000 Fidelity Investment Trust grant – to Barbara Tate (sabbatical trainee)
2001 Fidelity Investments Trust grant – to Barbara Tate (sabbatical trainee)
2001 Resident's Research Award, Congress of Neurological Surgeons -- to Kadir Erkman (post-doc)
2005 Admission to UCSD Cancer Training Program, Rodolfo Gonzalez (grad student)
2005 NIH, K08 Awardee, Xuejun Parsons (post-doctoral fellow)
2005 Admission to UCSD Genetics Training Program, Dustin Wakeman (grad student)
2005 Awardee, Fellowship, Canadian Institute of Health Research, Stephen Yip (post-doc)
2005 American Society for Neural Therapy & Repair Student Travel Award – Dustin Wakeman (grad student)
2007 AAN Foundation/ALS Association Clinician-Scientist Development Fellowship to Anne-Marie Wills (MGH, former student)
2007 Congress of Neurological Surgeons Award – Rahual Jandial (grad student)
2007 Fishman Postdoctoral Fellowship Award (Burnham Institute) – Jennifer Katz-Keaton (post-doc)
2007 Merck Foundation Scholar – Ilyas Singec (post-doc)
2007 Wallenberg Foundation of the Karolinska University (Stockholm) – Eric Herlenius (former post-doc/continued collaborator)

2007 Burnham Science Network Poster Symposium Award winner -- Jochen Maurer (post-doc)
2007 California Institute for Regenerative Medicine Fellowship Award – Jeff Lindquist (post-doc)
2008 Rahul Jandial – Awardee American Brain Tumor Association Fellowship
2008 Rahul Jandial -- Teaching Award recipient, Academic Senate, UCSD
2008 Fishman Postdoctoral Fellowship Award (Burnham Institute) – Jochen Maurer (post-doc)
2009 American Society for Neural Therapy & Repair Student Travel Award – Dustin Wakeman (grad student)
2009 California Bipolar Foundation Research Fellowship Award – Ilyas Singec (post-doc/Staff Fellow)
2010 American Society for Neural Therapy & Repair Student Travel Award – Dustin Wakeman (grad student)
2010 California Bipolar Foundation Research Fellowship Award – Ilyas Singec (post-doc/Staff Fellow)
2010 National Tay-Sachs & Allied Disease Foundation Award – Jean-Pyo Lee (Staff Scientist)
2010 California Institute for Regenerative Medicine Fellowship Award – Ilyas Singec (post-doc/Staff Fellow)
2012 American Society for Neural Therapy & Repair Student Travel Award – Runquan Zhang (post-doc)
2012 California Institute for Regenerative Medicine Fellowship Award – Brian Tobe (post-doc)
2014 American Society for Neural Therapy & Repair Student Travel Award – Cameron Pernia (grad student)
2014 Bill & Melinda Gates Foundation Millenium Scholarship (providing full tuition starting from undergraduate BS degree through PhD) – Ray Solis, high school rotation student
2015 Young Investigator Award, *Stem Cell Translational Medicine* (for best paper published in 2014) – Dustin Wakeman
2015 Ilyas Singec, appointed Director, hiPSC Core at NIH (NCATS)
2018 Sandra Leibel – Western Society for Pediatric Research (WSPR) Meade-Johnson Travel Award
2018 Sandra Leibel – UCSD Seed Funding award
2018 Janessa Law – Western Society for Pediatric Research (WSPR) Abbott Neonatology Award
2018 Janessa Law – American Society for Neural Therapy & Repair Travel Award
2018 Janessa Law – Thrasher Research Fund's Early Career Award
2018 Sandra Leibel – Inaugural UCSD Dept of Pediatrics Young Faculty Endowed Chair in Clinical Excellence
2020 Janessa Law – Abstract selected to be presented at the podium, Pediatric Academic Society Annual meeting
2022 Ruslan Nuryyev – *Melvin & Phyllis McCardle Clause Scholarship for research in* neurodegenerative diseases & aging
2022 Rachel McVicar – CIRM scholar
2022 Maya Vasishth – Competitive slot on NIH-funded UCSD Pharmcology T32 training grant
2023 Sandra Leibel – CIRM clinical scholar

BIBLIOGRAPHY

PRIMARY REPORTS

Snyder, E.Y., Kim, S.U., Hormonal requirements for neuronal survival in culture, *Neuroscience Letters* 13: 225-230 (1979).

Snyder, E.Y., Kim, S.U., Insulin: Is it a nerve survival factor?, *Brain Research* 196: 565-571 (1980).

Jarvis, W.R., Banko, S., **Snyder, E.Y.**, Baltimore, R.S., Pasturella Multocida osteomyelitis in dog bites, *American Journal of Diseases of Children* 135: 625-627 (1981).

Cepko, C., Turner, D., Price, J., Ryder, E., **Snyder, E.**, Retrovirus-mediated gene transfer and expression in the nervous system, in *Current Communications in Molecular Biology* (eds, Miller, J.,H., Calos, M.P.), Cold Spring Harbor, pp15-17 (1987).

Ryder, E.F., **Snyder, E.Y.**, Cepko, C.L., Establishment and characterization of multipotent neural cell lines using retrovirus vector-mediated oncogene transfer, *Journal of Neurobiology* (now called *Developmental Neurobiology)* 21: 356-375 (1990).

Turner, D.L., **Snyder, E.Y.,** Cepko, C.L., Cell lineage analysis in the embryonic mouse retina by retroviral vector-mediated gene transfer, *Neuron* 4: 833-845 (1990).

Snyder, E.Y., Deitcher, D.L., Walsh, C., Arnold-Aldea, S., Hartweig, E.A., Cepko, C.L., Multipotent neural cell lines can engraft and participate in development of mouse cerebellum, *Cell* 68: 33-51 (1992). **[Accompanied by editorial]**

Kitchen, D., **Snyder, E.Y.***, Gottlieb, D.I.*, Basic fibroblast growth factor (FGF) and epidermal growth factor (EGF) are mitogens for immortalized neural pregenitors *Journal of Neurobiology* 25: 797-807 (1994). **[*co-corresponding & senior authors]**

Snyder, E.Y., Taylor, R. M., Wolfe, J. H., Neural progenitor cell engraftment corrects lysosomal storage throughout the MPS VII mouse brain, *Nature* 374: 367-370 (1995). DOI: 10.1038/374367a0

Lacorazza, H.D., Flax, J.D., **Snyder, E.Y.**, Jendoubi, M., Expression of human β–hexosaminidase α-subunit gene (the gene defect of Tay-Sachs disease) in mouse brains upon engraftment of transduced progenitor cells, *Nature Medicine* 4: 424-429 (1996).

Lynch, W.P., **Snyder, E.Y.**, Qualtierre, L., Portis, J.L., Sharpe, A.H., Late virus replication events in microglia are required for neurovirulent retrovirus-induced spongiform neurodegeneration: evidence from neural progenitor-derived chimeric mouse brains, *Journal of Virology* 70: 8896-8907 (1996).

Taylor, R.M., **Snyder, E.Y.**, Widespread engraftment of neural progenitor & stem-like cells throughout the newborn mouse brain, *Transplantation Proceedings* 29: (1-2) 845-847 (1997).

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FILMS:

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PATENTS

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Canadian Patent #2,339,411: "Engraftable human neural stem cells (Filed 8/5/1999; issued 5/14/12)

European Patent #99942022.7: "Engraftable human neural stem cells" (Filed 8/5/99)

Engraftable neural progenitor and stem cells for brain tumor therapy (US Prov. No. 10/947,407)

Engraftable neural progenitor & stem cells for brain tumor therapy Plus Engraftable neural progenitor & stem cells as packaging/producer lines for viral vectors *in vivo* (US Provisional No. 09/168,350) (International Application No. PCT/US01/08273)

Method of treating Alzheimer's Disease with cell therapy (US Provisional No. 10/344,712 & 60/225,317; International Application No. PCT/US01/25629 (filed 8/14/2000).

Methods, compositions, & kits for promoting recovery from damage to the central nervous system (co-inventor: Seth Finkelstein, M.D.) (US No. 60/149,561) (International US00/22843)

United StatesPatent #2005/0233446 Al: "Defined media for stem cell culture" (Provisional #60/533,506 filed 12/31/2003; issued 10/20/2005) (also: US Prov. No. 11/027,395 & No. 11/435,991)

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International application number:
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US #8,071,378 B2: ZNF206: Novel regulator of embryonic stem cell self-renewal & pluripotency

United States Patent #10/204,160: "Systemic gene delivery vehicles for treatment of cancer" (filed 8/98; issued 3/08)

Neural stem cells to systemically treat tumors: Intravascular administration of non-hematopoietic cells (including neural stem cells) for treatment of cerebral and extra-cerebral tumors (US Provisional No. 60/189,720)

Engraftable neural progenitor and stem cells for brain tumor therapy (filed 9/22/04) (US No. 10/947,407)

Neural stem cells & use thereof for brain tumor therapy (expanded) (filed 10/12/06) (US No. 11/546,726)

United States Patent #7,393,526 B2: "Systemic gene delivery vehicles for treatment of tumors" (filed 11/5/03; issued 7/1/08).

Canadian Application No. 2,406,664: "Systemic gene delivery vehicles for treatment of cancer" (International filing date 3/15/01; issued 12/2/10)

European Appl. No.: 01920384.3: "Systemic Gene Delivery Vehicles for the Treatment of Tumors (International Filing Date: 3/15/01; Issued 10/24/12)

Japanese Patent. #2001-566711: "Systemic Gene Delivery Vehicles for the Treatment of Tumors" (Filed 3/15/01: Issued 8/1/11)

United Kingdom Patent #EP1267944 "Systemic gene delivery vehicles for the treatment of tumors" (Filed 3/15/01; Issued 5/29/13)

German Patent #601 48 036.8 "Systemische gentransfer-vehikel für die behandlung von tumoren" (Filed 3/15/01)

French Patent #EP1267944 "Vecteurs de transfert de genes systemiques utilises pour le traitement des tumeurs" (Filed 3/15/01; Issued 5/29/13)

US2008/0182328A1 (#12/004,299): "Mammalian Extra-embryonic Endoderm Cells and Methods of Isolation (Primitive endoderm derived from hESCs maintain the pluripotent state)" (filed 12/19/07; published 7/31/08)

US8,071,378 B2: ZNF206: A novel regulator of embryonic stem cell self-renewal & pluripotency. (filed 8/6/07; published 4/9/09; issued 12/6/11)

US2008/0182328A1 (#12/004,299): Mammalian extraembryonic endoderm cells & methods of isolation

US 2011/0002897 (12/813,174): Directed Differentiation of Stem Cells (Filed: 6/10/10; Published: 1/6/11) (formerly US Prov #61/186348)

US 61/606,183: A De-Novo Designed CXCR4 Synthetic Agonist Directs Targeted Human Neural Stem Cell Migration (filed: 3/2/12)

US10/227,561: Methods & compositions for targeting progenitor cell lines (filed 8/21/13 & 11/02/15) (US No. 13/972,695 & 14/930,505) (issued: 3/12/19)

US 62/856,631 (PCT /US20/35331): Machine-learning system for diagnosing disorders & diseases & determining drug responsiveness (filed: 03.06.2019)

Methodology for converting multipotent neural progenitor/stem cells to dopaminergic neurons (with E. Arenas) (WO 00/66713)

Methods for improving respiratory function and inhibitng muscular degeneration (US Provisional No. 60/189,241)

Generation of human neural crest stem cell lines & their utilization in human transplantation (US Provisonal No. 09/565,339; Canadian 2,409,713)

Methods and compositions for hair follicle generation (US Prov Appl: 63/347501); Filed 05/31/2022; Docket No. 22-026-01PR

US 63/481,149 (PCT/US2024/012581): Methods & compositions for treating perinatal hypoxic-ischemic brain injury (Filed January 23, 2023)

US 18/361,439: Methods and compositions for detecting cognitive disorder (Filed July 28, 2023)

Novel application of human airway surfactant, BPIFA1, as prophylactic antiviral against Respiratory Syncytial Virus (RSV) (Filed October 1, 2023)

New PCT Application No.

"TRADE SECRET" -- FOR LICENSING

New immortalized doral root ganglia (DRG) cell line demonstrating calcium influx in response to stimuli and response to capsaisin, to be used for analgesic drug testing

Engraftable, foreign gene expressing neural stem cells for generating animal models of CNS disease

INVITED ADDRESSES & SYMPOSIA CHAIRMANSHIPS

The Children's Hospital-Boston Alumni Symposium, June 6, 1990, Boston, MA. "Plasticity in the developing central nervous system".

Keasely Welch Honorary Symposium on Research, Department of Neurosurgery, Longwood Medical Area, Harvard Medical School, June 9, 1990, Boston , MA: "Neural Transplantation".

Program of Continuing Education, Department of Nursing and Division of Staff Education, Brigham and Women's Hospital, June 29, 1990, Boston, MA: "Perinatal asphyxia".

Department of Continuing Nursing Ediucation, Brigham and Women's Hospital, October 5, 1990, Boston, MA: "Management and assessment of the asphyxiated newborn".

Child Neurology Society Young Investigator Award Address, October 19, 1990, Atlanta, GA: "Evidence for extensive cellular plasticity in the developing mammalian brain: establishment, characterization, and transplantation of functional, multipotent clonal neural cell lines generated via retrovirus-mediated gene transfer".

Eastern Society for Pediatric Research Young Investigator Award Address, October 20, 1990, New York, NY: "Establishment, characterization and transplantation of functional, multpotent clonal cerebellar cell lines generated via retrovirus-mediated gene transfer".

Ross Conference on Developmental Basis of Neonatal Disease, November 11-14, 1990 Tempe AZ: discussant.

Kennedy Research Institute Lecture Series on Neural development, Johns Hopkins Medical Institutions, January 28, 1991, Baltimore, MD. "Use of retroviral vectors to study neural plasticity".

Keystone Symposia on Molecular and Cellular Biology, Symposium on Gene Transfer, Replacement, and Augmentation, April 5, 1992, Copper Mountain, CO: "Transplantation of multipotent immortalized neural cell lines into mouse brain".

Department of Neurology Annual Scientific Retreat, Children's Hospital and Harvard Medical School, May 17, 1992, Boston, MA: "Neural transplantation: An approach to cellular plasticity in the developing mammalian central nervous system".

Developmental Pediatrics Lecture Series, Children's Hospital-Boston, December 23, 1992, Boston, MA: "Neural transplantation: An approach to understanding and treating the abnormal central nervous system".

Symposium on "Strategies For Therapy of Genetic Disorders", Society for Pediatric Research Annual Meeting, May 4, 1993, Washington, D.C.: "Multipotent neural progenitor cell lines can engraft & participate in development of multiple structures at multiple stages throughout mouse neuraxis -- a potential strategy for research, therapy, & gene transfer into developing mammalian CNS."

University of Pennsylvania School of Medicine and Children's Hospital of Philadelphia, May 18, 1993, Philadelphia, PA: "Transplantation of multipotent neural progenitor cell lines into the central nervous system -- a potential research & therapeutic tool".

Rapporteur, Wenner-Gren Symposium on "Gene Transfer Strategies in the the Study of Brain Damage and Repair," June 3, 1993, Stockholm, Sweden: "Non-Neuronal Cells for Gene Delivery"

Wenner-Gren Symposium on "Gene Transfer Strategies in the Study of Brain Damage and Repair", June 4, 1993, Stockholm, Sweden: "Neuronal Gene Delivery: Immortalized cerebellar cells using v-myc".

Advisory Committee Meeting on "Gene Therapy for Mental Retardation & Developmental Disabilities: Prospects & Strategies", National Institutes of Health, National Institute of Child Health and Human Development, Mental Retardation and Developmental Disabilities Branch, July 8, 1993, Bethesda, MD: "Transplantation of immortalized neural progenitors for gene delivery and repair".

Robert Steel Foundation for Pediatric Cancer Research Symposium on "Stem Cells -- Their Propagation, Development and Application for Organ Reconstitution and Repair", Memorial Sloan-Kettering Cancer Center , October 14, 1993, New York, NY: "Immortalized neural progenitors can engraft & participate in dvelopment of multiple structures at multiple stages along the mouse neuraxis".

Lecture series on Gene Therapy, University of Pittsburgh School of Medicine, November 18, 1993, Pittsburgh, PA: "The use of immortalized neural progenitors for gene transfer into the mammalian brain".

Keystone Symposia on Molecular & Cellular Biology, “Symposium on Stem Cells”, February 6, 1994, Taos, NM: “Transplantation of immortalized neural progenitors -- developmental insights & potential for gene therapy & repair”

Department of Obstetrics & Gynecology, Brigham & Women’s Hospital, Harvard Medical School, Seminar Series on Fetal Interventions, Boston, MA, February 18, 1994: “The use of immortalized neural progenitors for gene therapy & repair of the developing mammalian brain”.

American Society for Neurochemistry 25th Annual Meeting Symposium on “Genetic Manipulation of the CNS: From Basic Research to Clinical Application”, March 6, 1994, Albuquerque, NM: “Immortalized neural progenitors for gene therapy & repair”.

Harvard Longwood Medical Area Child Neurology Resident’s Research Seminar Series, March 10, 1994, Boston, MA: “The biology and therapeutic potential of neural stem cells”.

Eunice K. Shriver Center for Mental Retardation, March 16, 1994, Waltham, MA: “Immortalized neural progenitors -- developmental insights & potential for gene therapy & repair”.

Seminar Series in “Human Genetics & Genome Research”, Department of Genetics at The Hospital for Sick Children and Department of Molecular & Medical Genetics, University of Toronto, April 4, 1994, Toronto, Ontario, Canada: “Immortalized neural progenitors for gene therapy, repair, & insights into development”.

American Paralysis Association Conference on “Activity-Dependent Plasticity: Enhancing Recovery after Spinal Cord Injury”, April 14, 1994, Beckman Center of the National Academies of Science & Engineering, Irvine, CA: “The therapeutic potential of immortalized neural progenitors in spinal cord injury.”

Program in Human Molecular Biology & Genetics, University of Utah, April 26, 1994, Salt Lake City, Utah: “Immortalized neural progenitors for gene therapy, repair, & insights into development”.

Association of American Physicians, American Society for Clinical Investigation, American Federation for Clinical Research, Clinical Research Meeting Theme Symposium: “Stem Cells in Cell Therapy”, April 29, 1994, Baltimore, MD: “Immortalized neural stem cells: insights into development; prospects for gene therapy & repair”

Chairperson, “Developmental Biology” Platform Session, Society for Pediatric Research & American Pediatric Society Annual Meeting, May 2, 1994, Seattle, WA.

American Society for Neural Transplantation, May 7, 1994, Clearwater, FLA: "Transplantation of β–glucuronidase-expressing immortalized neural progenitors for gene transfer into CNS of the Mucopolysaccaridosis VII mouse, a prototype of a genetic neurovisceral lysosomal storage disease”

Fifth International Symposium on Neual Transplantation, Symposium on “Gene Manipulation in Neural Transplantation”, Chatenay-Malabry (Paris), France, June 25, 1994: “Transplantation of immortalized neural progenitors for gene therapy, repair, & insights into development”.

Chairperson & Presenter, Symposium on “Neural Transplantation: Alternatives to Primary Fetal Tissue” at the XIXth Congress of the Collegium Internationale Neuro-psychopharmacologicum
(CINP) marking the Midpoint of the Decade of the Brain, July 1, 1994, Washington, D.C: “Transplantation of immortalized multipotent neural progenitors”.

Basic Science Research Seminar, Amgen, August 4, 1994, Twelve Oaks, CA: “ The use of immortalized neural progenitors for gene transfer, repair, and insights into development”.

The National Center for Advanced Medical Education, “Neonatology/Perinatology: Review and Update”, August 8, 1994, Chicago, IL: “Plasticity of the brain.”

Medical College of Pennsylvania, Spinal Cord Injury Research Group, August 17, 1994, Philadelphia, PA: “The therapeutic potential of neural progenitors in spinal cord disease.”

Technical Workshop on “New Trends in Cell Culture: Cell Lines by Immortalization”, Annual Meeting of the European Neuroscience Association, September 4, 1994, Vienna, Austria: “The generation, transplantation, and differentiation of multipotent immortalized neural progenitors”.

Cold Spring Harbor Conference on "Gene Therapy", September 24, 1994, Cold Spring Harbor, NY: "CNS precursor cells as gene delivery vehicles and mediators of repair".

"Workshop on Immortalization of Cells: New Opportunities to Perform Mechanistic Studies", University of Colorado Health Sciences Center, School of Medicine, Center for Vitamins & Cancer Research, October 14, 1994, Denver, CO: "Analysis and transplantation of immortalized neural progenitors".

University of Kentucky, College of Medicine, Chandler Medical Center, Department of Anatomy and Neurobiology Seminar Series, October 27, 1994, Lexington, KY: "Immortalized neural progenitors: insights into development; potential for gene therapy and repair".

New York Society of Electron Microscopists, November 29, 1994, New York, NY: "Transplantation of CNS progenitors & 'stem-like' cells: insights into plasticity; potential for gene therapy & repair"

Hereditary Disease Foundation Markham Workshop on "Gene-based Therapies for Dystonia, Parkinson's Disease, and Neurodegenerative Disorders," University of California, Los Angeles, Los Angeles, CA, February 24-26, 1995.

American Society for Neurochemistry, Symposium on "Neural Transplantation in Development and Repair", March 6, 1995, Santa Monica, CA: "CNS progenitor & 'stem-like' cells as gene delivery vehicles & mediators of repair".

California Institute of Technology, Division of Biology Seminar Series, March 7, 1995, Pasadena, CA: "Transplantation of clonal, multipotent neural stem-like cells to address developmental and therapeutic issues."

Keystone Symposium on Molecular & Cellular Biology, "Symposium on Gene Therapy & Molecular Medicine", March 28, 1995, Steamboat Springs, CO: "CNS progenitor & 'stem-like' cells as gene delivery vehicles & mediators of repair".

Mental Retardation Research Center Lecture, Kennedy-Krieger Institute, Johns Hopkins University, April 10, 1995, Baltimore MD: "Neural progenitor cell engraftment therapy for storage diseases and other neurodegenerative conditions"

American Paralysis Association (APA) Trustees Retreat on Research Dimensions Now And In The Year 2000, May 7, 1995, Westbrook, CT: "Current Trends in Research in Spinal Cord Dysfunction -- What Impact on APA's Mission".

International Conference on Gene Therapy for CNS Disorders, University of Pennsylvania School of Medicine, June 9, 1995, Philadelphia, PA: "CNS progenitor & 'stem-like' cells as gene delivery vehicles & mediators of repair".

Stem Cell Seminar Series, University of Massachusetts Medical Center, June 29, 1995, Worcester, MA: "Neural stem-like cells: Developmental insights; Potential for CNS gene therapy & repair".

Late Onset Tay-Sachs Foundation Annual Meeting, July 21, 1995, Boston, MA: "The promise of neural progenitors and stem cells for treating Tay Sachs and other neurogenetic diseases affecting the CNS."

Symposium on "Cellular and Molecular Treatments of Neurological Disease", September 8, 1995, Cambridge, MA: "Neural progenitor cell biology may provide insights into gene therapy and repair of the CNS".

Annual Scientific Retreat of the Division of Metabolism, Department of Medicine, Children's Hospital, Harvard Medical School, September 12, 1995, Boston, MA: "CNS 'stem-like' cells as gene delivery vehicles & mediators of repair in neurodegenerative metabolic diseases"

Colloques Medecine et Recherche, "Isolation, Characterization, and Utilization of CNS Stem Cells", Fondation Ipsen Pur La Recherche Therapeutique, September 18, 1995, Paris, France: "Differentiation and transplantation of multipotent stem-like cells: insights into development and therapeutic potential"

Laudat Conference, "Demyelination and Remyelination", INSERM, Alsace, France, September 27, 1995: "Potential for myelin repair by transplantation of multipotent stem-like cells".

Child Neurology Society, Symposium on "Treatment of Metabolic & Genetic Diseases", October 27, 1995, Baltimore, MD, "CNS progenitor & 'stem-like' cells as gene delivery vehicles & mediators of repair in neurodegenerative diseases"

Society for Neuroscience Satellite Symposium on "Novel Approaches to Gene Therapy in the CNS", November 11, 1995, San Diego, CA: "CNS progenitor & 'stem-like' cells as gene delivery vehicles & mediators of repair in neurodegenerative diseases"

Chairperson, Society for Neuroscience Annual Meeting, Platform Session, November 12, 1995, San Diego, CA: "Genetic Models of Human Neuropsychiatric Disorders".

New England Society for Electron Microscopy's Twenty-Ninth Annual Fall Symposium, December 6, 1995, Waltham, MA: "Transplantation of Neural Stem-like Cells: Insights into Development & Potential for Gene Therapy & Repair".

Sixth International Symposium on Neural Regeneration, December 8, 1995, Asilomar Conference Center, Pacific Grove, CA: "Transplantation of multipotent neural progenitor or stem cell-like cells for gene therapy and repair".

American College of Neuropsychopharmacology Panel Session on "The Gene as A Drug: Methods to Transfer Genes to the Brain and Potential Applications for Treatment of CNS Disorders", December 13, 1995, San Juan, Puerto Rico: "CNS progenitors & 'stem-like' cells as gene delivery vehicles & mediators of repair".

Australian Spinal Research Trust Conference on Advances in Spinal Dysfunction, February 28, 1996, Walter & Eliza Hall Institute of Medical Reserach, Royal Melbourne Hospital, Parville, Melbourne, Australia, "Neural stem-like cells: Developmental lessons with therapeutic potential".

American Society of Neurochemistry, Satellite Symposium on Gene Therapy for Neurological Disorders, March 2, 1996, Philadelphia, PA: "CNS cell transplantation: a novel therapy for storage diseases?".

Workshop on Research in the Chemical Senses, April 18, 1996, Sarassota, FL, "The biology underlying CNS progenitor and stem-like cell transplantation"

University of Pittsburgh School of Medicine, Dept. of Neurology Research Seminar Series, May 15, 1995, Pittsburgh, PA: "The biology and therapeutic potential of neural 'stem-like' cells".

Symposium on Gene Therapy and Tissue Transplantation, Third Annual Meeting of the American Society of Neurorehabilitation, June 7, 1996, Chicago, IL: "Is there a role for neural stem cells in neurorehabilitation?"

Child Neurology Society Annual Meeting, Breakfast Seminar on "Hope and Hype of Gene Therapy", September 28, 1996, Minneapolis, MN: "Somatic/progenitor cell gene therapy".

Spinal Cord Research Foundation's 20th Anniversary Spinal Cord Research Symposium, December 12, 1996, Washington, DC: " Transplantation of neural progenitor & stem-like cells: developmental insights may suggest new therapies for spinal cord & other CNS dysfunctions".

Winter Conference on Brain Research, "Cell fate determination: can stem cells be guided to specific neural phenotypes?", January 25, 1997, Breckenridge, CO: "Some multipotent neural stem-like cells may pursue an intrinsic "default" pathway to become neurons which can be altered by intercellular environmental cues".

National Institute of Neurologic Diseases & Stroke, Laboratory of Molecular Medicine & Neuroscience, Seminar series, February 11, 1997, Bethesda, MD: "How multipotent neural stem cells might make their fate choices; biologic lessons with therapeutic potential."

Beth Israel Seminars in Medicine, February 25, 1997, Boston, MA: "Neural progenitor and "stem-like" cells may hold potential for CNS gene therapy and repair"

University of Pennsylvania Seminar Series of the Institute of Neurologic Sciences and Neurorehabilitation Training Program, March 18, 1997, Philadelphia, PA: "Neural progenitor & 'stem-like' cells: Insights into development and potential for CNS gene therapy and repair".

Neursocience Gene Therapy Program and Gene Therapy for Brain Tumor Program, Massachusetts General Hospital, Harvard Medical School, April 7, 1997, Charlestown, MA: "Neural Progenitor Cells for Gene Therapy"

American Academy of Neurology Course on "Neurodevelopment from the laboratory to the clinic", April 18, 1997, Boston , MA: "Neural stem cells: developmental lessons with therapeutic potentials"

Gene Therapy Program, Harvard Institutes of Medicine, Harvard Medical School, April 28, 1997, Boston, MA: "The Potential Role of Neural Progenitor and Stem-like Cells in CNS Gene Therapy, Cell Replacement, & Repair"

Newton-Wellesley Parkinson Support Group, April 28, 1997, Newton, MA: "The potential of neural progenitors and stem cells for the treatment of neurodegenerative diseases such as Parkinson's Syndrome".

50th Perinatal & Developmental Medicine Symposium, Brain Injury in the Newborn, June 2-5, 1997, Aspen, CO: "Neural Stem Cells in Perinatal Brain Injury".

University of Kentucky Symposium on Therapy for Spinal Cord Injury and Head Trauma, June 21, 1997, Louisville, KY: "Neural Progenitor & 'Stem-Like' Cells May Hold Potential For CNS Gene Therapy & Repair"

Late Onset Tay-Sachs Foundation Annual Meeting, August 1, 1997, Philadelphia, PA: "Progress in the use of neural progenitor cells for the treatment lysosomal storage diseases."

National Spinal Cord Injury Association, Greater Boston Chapter, Annual Research Update, October 4, 1997, Boston, MA: "The potential of neural stem cells for gene therapy and repair in spinal injury."

North American Foundation Conference on Developmental Neurobiology: "Gene and Cell Therapeutic Approaches to Parkinson's and other Neurodegenerative Diseases", University of Hong Kong and Beijing Medical School, October 11, 1997, Beijing, People's Republic of China: "The biology of neural progenitors and stem-like cells may make them uniquely suited for the treatment of certain neurodegenerative diseases"

Workshop on the Reeler Mutant and other Mouse Models of Abnormal Neuronal Migtation, October 25, 1997, New Orleans, LA: "Neural Progenitor Transplantation into the Reeler Mouse Brain"

New England Stem Cell Consortium, November 4, 1997, Worcester, MA: "An introduction to neural stem cells"

Spinal Cord Injury Research Symposium, Medical Center at The Institute for Rehabilitation and Research (Baylor College of Medicine, University of Texas Houston Medical School, University of Texas Medical Branch in Galveston), November 7, 1997, Houston, TX: "Neural progenitor & stem-like cells: developmental insights may suggest strategies for cell replacement and gene therapy in spinal cord & other CNS dysfunctions".

Presidential Symposium on "Epilepsy Therapies for the 21st Century", Annual Meeting of the American Epilepsy Society, December 8, 1997. Boston, MA: "The Potential of Cell Transplantation as a Therapy for Epilepsy"

1998 University of Calgary Medical Scientist & Graduate Student Association Symposium on Regeneration and Cell Replacement in the Nervous System, April 3, 1998, Calgary, Canada: "Neural progenitor & 'stem-like' cells: Insights into development and potential for CNS gene therapy and repair".

Tufts University, New England Medical Center Clinical Genetics Seminar Series, April 20, 1998, Boston, MA: "Neural stem cells as unique vehicles for gene transfer to the central nervous system".

American Academy of Neurology, Course on Developmental Neurobiology: Bench to Bedside, Minneapolis, MI, April 27, 1998: "Neural stem cells: Developmental Insights with Therapeutic Potential".

State of the Art Speaker, Academic Pediatric Societies (Society for Pediatric Research) State of the Art Plenary Session on Brain Metabolism & Injury -- Neonatal Brain Injury, May 1, 1998, New Orleans, LA: "Neural Progenitors & Stem Cells: Developmental Insights May Suggest New Strategies for Gene Therapy & Repair of the Injured Newborn Brain"

Hunter's Hope Foundation Medical Symposium on Approaches to Krabbe's Disease & Related Leukodystrophies, May 8-10, 1998, Buffalo, NY: "Neural progenitors & stem cells as vehicles for gene delivery and cell replacement in 'global' neurodegenerative diseases".

Recent Accomplishments in Spinal Cord Injury Research: Progress Towards A Cure, Scientific Workshop at University of Virginia, Department of Neuroscience, May 12-15, 1998, Wintergreen and Charlottesville, VA: "The potential of neural progenitor and stem cells for gene and neural cell replacement in the dysfunctional spinal cord".

Child Neurology Society Visiting Scientist Awardee Address, and Keynote Address to the Midwestern Child Neurology Society, University of Wisconsin at Madison, June 5, 1998, Madison WI, "Neural Progenitors & Stem Cells: Developmental Insights May Suggest New Strategies for Gene Therapy & Repair of the CNS".

FASEB Summer Research Conference on the Neurobiology of Central Nervous System Injury, "Genetic Manipulations in Trauma & Stroke: Progenitor/Stem Cells", June 22, 1998, Namaste Conference Center, Wilsonville, OR: "Neural Progenitors & Stem Cells May Be Uniquely Suited for Gene Therapy & Repair Strategies for the Injured CNS".

International Organization on Glutaric Aciduria, August 10, 1998, Clearwater, FL: "Might nerual stem cells offer hope for neurodegenerative inborn errors of metabolism."

Myelin Project of Canada, August 16 & 17, 1998, Toronto, Canada: "Neural progenitors & stem cells as vehicles for gene delivery and cell replacement in 'global' neurodegenerative diseases"

Featured Keynote State-of-of-the-Art Address, Annual Meeting of the Midwestern Society Pediatric Research, September 17, 1998, Chicago, IL: "Neural stem cells: developmental insights might suggest novel strategies for gene therapy and repair of the CNS".

Cambridge Healthtech Institute, Symposium on "Acute Neuronal Injury: New Therapeutic Opportunities", September 23, 1998, Las Vegas, Nevada: "Neural stem cells might be responsive to and ideally suited for therapy of acute neuronal injury and neurodegeneration."

Cellular and Molecular Treatments Of Neurological Diseases, 2nd Conference On The Prospects Of Neural Transplantation, Gene Therapy, And Progenitor Cell Biology, October 10, 1998, Cambridge, MA: “Gene transfer strategies for lysosomal storage diseases and other genetic neurodegenerative conditions”.

Midwest Critical Care Symposium for Neonatology: Brain Injury in the Newborn, November 14, 1998, Cincinnati, OH: “Plasticity of the developing brain.”

American College of Neuropsychopharmacology Annual Meeting, Panel on “Repairing the Brain: New Strategies for Transplantation”, December 17, 1998: “Neural progenitor and stem cells for gene delivery and cell replacement in CNS disorders”.

American Association for the Advancement of Science (AAAS) (*Science*) Annual Science and Innovation Exposition, January 26, 1999, Annaheim, CA: Symposium on Neural Transplantation in Development and Disease: “Neural progenitors and stem cells: developmental insights suggest novel therapeutic strategies”.

International Oranization of Glutaric Acidemia, Annual Scientific Meeting, February 8, 1999, Strousberg, PA: "The potential role of neural stem cells in transplantation to the striatum for dystonia and other movement disorders."

Genzyme, February 12, 1999, Framingham, MA: "Neural stem cells for neurogenetic diseases".

Ataxia Telangiectasia Children's Project Annual Scientific Meeting, Presentation to the Directorship, February 17, 1999, Las Vegas, NV: "Can neural stem cells reverse the neurologic symptoms of AT?"

Institute for Head Trauma Research, Department of Neurosurgery, University of Pennsylvania School of Medicine, February 19, 1999, Philadelphia, PA: "Neural stem cells respond in a reparative fashion to CNS injury: basis for a therapeutic approach to head trauma"

International Workshop on the Study of Neural precursors and Their Application for Treatment of Inborn Errors of Metabolism with CNS Involvement, Genetic Approaches for the Treatment of Inherited Metabolic Deseases, Cell Science & Technology Agency of Japan, February 25, 1999, Tokyo, Japan: “The potential of neural stem cell transplantation in neurogenetic diseases.”

Department of Gene Therapy, Institute of DNA Medicine and Department of Pediatrics, Tokyo Jikei University School of Medicine, February 26, 1999, Tokyo, Japan: "Neural stem cells: developmental insights suggest novel therapeutic strategies”

Late Onset Tay-Sachs Foundation, March 21, 1999, Los Angeles, CA: “A possible role of neural transplantation in Tay-Sachs disease and other lysosomal storage diseases.”

Canavan Research Fund, March 24, 1999, Boston MA: “A role for neural stem cells in Canavan disease”

Project ALS, March 25, 1999, Boston MA: “Neural stem cells for motorneuron replacement in models of ALS”.

CNS/’99 Medical Symposium on the Clinical Applications of Gene Therapy for Canavan Disease and other Neurodegenerative Disorders, Thomas Jefferson University, April 10, 1999, Philadelphia, PA: “The unique role for neural stem cells in the neurogenetic disorders.”

American Academy of Neurology, Faculty Member, Half-Day Course, “Clinical Applications of Developmental Neurobiology”, Toronto, ON, Canada, April 20, 1999: “Neural stem cells: developmental insights might suggest novel therapeutic interventions”

Symposium on Human Embryonic Stem Cells: Scientific & Ethical Issues, Schepens Eye Research Institute, Harvard Medical School, April 28, 1999, Boston, MA: “The therapeutic ‘pay-off’ of stem cells for CNS disorders”

6th Annual William H. Tooley Visiting Lecturer, University of California, San Francisco, Department of Pediatrics, May 13, 1999, San Francisco, CA: "Neural Stem Cells: Developmental Insights May Suggest Novel Strategies for Gene Therapy & Repair of the Injured CNS"

Children's Research Institute, Children's National Medical Center, May 19, 1999, Washington, DC: “Neural stem cells: Developmental insights may suggest novel therapies for CNS disorders”

University of Massachusetts School of Medicine at Worcester, Departments of Neurology and Pediatrics, Division of Child Neurology, June 4, 1999, Worcester, MA: “Neural Stem Cells: Developmental May Suggest Novel Strategies for Gene Therapy and Repair of the Injured CNS”.

State University of New York (SUNY), Department of Pediatrics Grand Rounds, Winthrop Hospital, June 8, 1999, Long Island, N.Y.: “Neural stem cells: developmental insights might suggest novel strategies for gene therapy and repair of the CNS”

Children's Hospital, Boston, Division of Newborn Medicine, Clinical Conference, June 14, 1999, Boston, MA: "Neural stem cells: a paradigm for bedside-to-bench-and-back-again-to-bedside research"

"Workshop on New Technologies and ALS Research", Amyotrophic Lateral Sclerosis Association June 17, 1999, Cambridge, MA: "Neural stem cells for ALS".

Department of Neurosurgery, Children's Hospital, Boston & Brigham & Women's Hospital, Harvard Medical School, Boston, MA, June 24, 1999: "Neural stem cells may provide new strategies against CNS dysfunction".

3rd Annual Symposium on Advances in Laboratory Medicine: "Stem Cells: Messengers for New Therapies", Department of Paediatric Laboratory Medicine, University of Toronto and Hospital for Sick Children, June 25, 1999, Toronto, Ontario, Canada: "Neural Stem Cells – Therapeutic potential"

Notable Advances in ALS Research, Gracie Mansion, June 29, 1999, New York, NY: "The potential of neural stem cells in ALS"

Harvard Medical School & Children's Hospital-Boston Workshop on Gene Therapy, June 30, 1999, Cambridge, MA "Neural stem cells as vehicles for gene therapy and repair of the CNS."

Hereditary Disease Foundation Workshop on "Neural Progenitor Cells & Novel Regenerative Strategies", July 18-19, 1999, New York, NY.

National Institute of Neurological Diseases and Stroke (NINDS) Workshop on "Neural Stem Cells: Promoting Repair and Plasticity of the Nervous System," July 20-21, 1999, Bethesda, MD: "The fate of transplanted progenitor cells and their potential for the treatment of stroke, trauma and other diseases"

Round table on future treatments for Tay-Sachs Disease, Late Onset Tay-Sachs Foundation, July 22, 1999, Philadelphia, PA: "Possible future therapies for Tay-Sachs disease"

Muscular Dystrophy Association Worskshop on "The Potential Application of Advances in Stem Cell Research Toward Developing Therapies for Neuromuscular Disorders", July 30-31, 1999, Tucson, AZ: "Neural stem cells for spinal motoneuron replacement".

CMP, Inc./MIT Symposium on Stem Cells, August 25, 1999, Dedham, MA: "Neural stem cells"

Salk Institute "Route 28" Summits in Neurobiology -- a workshop on CNS repair for graduate students, postdoctoral fellows, and clinical residents, August 25-31, 1999, Port Ludlow, WA: "Therapeutic Potential of Neural Stem Cells"

Kennedy-Krieger Institute, Johns Hopkins University School of Medicine, Baltimore MD, September 23, 1999: "Neural stem cells: developmental insights might suggest novel therapies for CNS disease"

Mechanisms of Human Neurogenesis, Wyeth Neuroscience, September 9, 1999, Princeton, NJ: "The influence of degeneration and injury on the neurogenetic responses of stem cells"

Myelin Project Annual Conference on Remyelination, October 2, 1999, London, UK: "Neural stem cells".

Cambridge Healthtech Institute Conference on "Tissue Engineering, RegenerativeHealing & Stem Cell Biology", Pittsburgh, PA, October 4, 1999: "The potential of neural stem cells for brain reconstruction and repair".

Children's Hospital, Boston, Development Office, Boston, MA, October 6, 1999: "The therapeutic promise of neural stem cells for neurologic abnormalities of childhood"

The Novartis Foundation, Symposium on "Neural transplantation in neurodegenerative disease: current status and new directions", October 14, 1999, London, UK: "Transplantation of neural stem cells for neurodegenerative diseases".

Satellite Symposium at the Society for Neuroscience Meeting on "Gene Therapy Approaches to Neurodegenerative Disease", Miami Beach, FL, October 23, 1999: "Neural stem cells provide unique opportunities for gene therapy of the CNS"

Motorneuron Development Lab, Columbia University, November 4, 1999, New York, NY: "Motorneuron degeneation directs the migration and differentitation of neural stem cells towards their replacement"

Layton Bioscience Board of Trustees Annual Meeting, November 6, 1999, Philadelphia, PA: the potenital of engraftable neural stem cells for gene therapy and repair of the CNS"

A-T Children's Project Symposium on "Progress in Ataxia-Telangiectasia Research", Cold Spring Harbor, NY, November 10, 1999: "Is there a role for neural stem cell transplantation in AT?"

Brain Tumor Society Annual Scientific Meeting, Providence, RI, November 13, 1999: "Neural stem cells as mediators of therapy against brain tumors".

National Institute Neurological Diseases & Stroke, NIH, Symposium on Novel Approaches to Batten's Disease, Bethesda, MD, November 16-17, 1999: "Can neural stem cell biology play a role in addressing the neurological issue in Batten's disease?"

Massachusetts General Hospital, Department of Psychiatry, Psychosomatic Conference, Boston, MA, December 30, 1999: "Neural transplantation as a therapeutic approach to neuropsychiatric disease".

Hereditary Disease Foundation Workshop, "Huntington Disease: Fast Paths to a Cure", Santa Monica, CA, January 8-9, 2000.

Bloomberg Financial Network, Potential treatments for ALS, New York, NY, January 12, 2000: "Neural stem cells"

Grand Rounds, Department of Neurosurgery, Massachusetts General Hospital, January 13, 2000, Boston, MA: "Neural stem cells: Developmental insights suggest novel approaches to CNS repair"

Clinical Research Institute of Montreal, Center for Bioethics, University of Montreal, Montreal, Qe, Canada, January 17, 2000: "The tug between the therapeutic promise and ethical issues surrounding stem cells"

5th Meeting of the United Kingdom Glial Cell Club, Symposium: "From Stem Cells to Glia: Molecules & Mechanisms", University of London, London, UK, January 26, 2000: "A potential role for multipotent neural stem cells in widespread diseases of myelin".

Defense Advanced Research Projects Agency (DARPA) Workshop on Stem Cells, Cambridge, MA, February 9, 2000: "Neural stem cells".

Cold Spring Harbor Symposium on Therapeutic Approaches in Mouse Models of ALS, Banbury Center, Cold Spring Harbor Laboratories, NY, February 14, 2000: "Neural stem cells for cell and gene replacement in models of motorneuron degeneration"

University of Utah and the Society for Gynecologic Investigation Fetal Gene Therapy Round Table, Salt Lake City, February 16, 2000: "Neural stem cells for *in utero* gene therapy of CNS diseases".

Food & Drug Administration, Bethesda, MD, February 18, 2000: Neural stem cells for ALS.

The Annual John Curran Neonatal Fellowship Lecture, University of South Florida, College of Medicine, Department of Pediatrics, Division of Neonatology, Tampa General Hospital, Tampa FL, February 24, 2000: "Neural stem cells: developmental insights may suggest new strategies for repair of the injured newborn brain"

Grand Rounds, Dept. of Neurosurgery, University of South Florida, College of Medicine, February 25, 2000: "Translational developmental neurobiology: Neural stem cells and the neurosurgeon"

The Chicago Medical School, Finch University of Health Sciences, Department of Neuroscience Seminar Series, Chicago, IL, March 2, 2000: "Neural stem cells: developmental insights may suggest novel therapeutic strategies"

Society for Neuroscience, Chicago Chapter Annual Meeting, Symposium on Stem Cells, Chicago, IL, March 3, 2000: "Neural stem cells for CNS repair".

Biomedical Sciences Graduate Student Organization Sponsored Guest Lecture, Wright State University, March 7, 2000, Dayton, OH: "Neural stem cells for therapy of neural injury & neurodegeneration".

22nd Princeton Conference on Cerebrovascular Disease, "Neurogenesis & Plasticity Related to Stroke & Degenerative Disease", March 12, 2000, Redwood City, CA: "Ischemic CNS injury may direct neural stem cells towards repopulation".

Arnold J. Rudolph Memorial Visiting Professorship Lecture, Baylor College of Medicine, March 17, 2000, Houston, TX: "New strategies for gene therapy and repair of the injured newborn brain".

Neonatology-Neurology Combined Conference, Texas Children's Hospital, Baylor College of Medicine, March 17, 2000, Houston, TX: "Neural stem cells: Developmental insights may suggest novel therapies for repair the newborn brain".

Public Outreach Forum, American Society for Neurochemistry, "Multiple sclerosis; what's on the horizon for repairing the damage?", Chicago, IL,, March 26, 2000: "The multifaceted role of neural stem cells in potential repair strategies".

American Society for Neurochemistry, 31st Annual Meeting, Symposium on Neural recovery in the diseased and injured central nervous system: new insights, Chicago, IL, March 27, 2000: "Neural stem cells – the interface of multiple repair strategies"

Neurobiology Seminar Series, The Psychiatric Institute, Department of Psychiatry, Unversity of Illinois at Chicago, Chicago, IL, March 29, 2000: "The biology of neural stem cells makes them uniquely suited as multifaceted mediators of CNS repair".

Biotechnology Industry Organization (Bio) 2000 International Biotechnology Meeting & Exhibition, Scientific Symposium "Putting Genes & Cells to Work: Cell BasedTechnologies & Regenerative Medicine", Boston, MA, March 28, 2000: "Cell & GeneTherapies for CNS Repair".

Invited lecturer, Ataxia-Telangiectasia Families' Caregiver's Conference, April 14, 2000, Chicago, IL: "A realistic view of neural stem cells -- the promise & the work ahead".

FASEB and American Physiological Society (APS) Meeting "Experimental Biology 2000", Physiological Genomics Symposium on "Cell & genes & their applications for therapies for the brain", (APS CNS section), April 16, 2000, San Diego, CA: "Progenitor cells as therapeutic tools for CNS diseases".

Northeastern Ohio Medical College, Neuroscience Seminar Series, Youngstown, OH, April, 25, 2000: "The therapeutic promise of solid organ stem cells: evidence from neural stem cells as a prototype".

Boston Medical Center, Spine Trauma Update, May 2, 2000, Boston, MA: "Neural repair after the first 48 hours"

Neuroscience Research Seminar Series Speaker, Department of Neurology, Thomas Jefferson University Medical College, May 3, 2000, Philadelphia PA: "Neural stem cells may enable a paradigm shift in the approach to neurological disease & injury".

Gordon Research Conference on Myelin Biology & Demyelinating Disease 2000, Il Ciocca, Barga, Italy, May 8, 2000: "Neural stem cells in development and disease"

State of the Art Speaker, Academic Pediatric Societies (Society for Pediatric Research), State of the Art Plenary Session: "The Developing Brain & Human Disease", May 13, 2000, Boston, MA: "Neural Stem Cells: Developmental Insights May Suggest New Strategies for Repair of the Newborn Brain"

Wyeth-Ayerst & Genetics Institute Discovery Research Retreat on the topic of "Stem Cells", May 16, 2000, Newort, RI: "Neural stem cells".

Harvard Medical School, "Neurobiology of Disease": May 17, 2000, Boston MA: "Neural stem cells: implications for understanding and treating neurological disease".

NY Academy of Science Symposia Stem Cell Technology: "Time to Achieve its Therapeutic Potential", May 23, 2000, New York, NY: "Neural stem cells: Developmental insights might suggest novel strategies for CNS repair"

NIH, NINDS Director's Meeting, May 24, 2000, Bethesda MD: "The potential of neural stem cells in motorneuron and other spinal dysfunctions".

NIH, National Institute on Aging & National Institute of Arthritis & Musculoskeletal & Skin Diseases, Symposium on Stem Cells, June 1, 2000, Bethesday, MD: "Neural stem cells".

American Society of Gene Therapy, 3rd Annual Meeting, Scientific Program on Cell Therapy for Muscle & Brain, Denver Colorado, June 2, 2000: "Neural Stem Cells: Developmental Insights May Enable Novel Approaches to Gene Therapy & Repair of the CNS."

Society of University Neurosurgeons Annual Scientific Symposium, June 15, 2000, Boston, MA: " Neural stem cells: the neurosurgeon as translational developmental neurobiologist.

Forum of European Neurosience, Special Interest Symposium: "Prospects for Clinical Application of Neural Transplantation", June 28, 2000, Brighton UK: "Neural stem cells may promote a paradigm shift in the use of neural transplantation for neurodegenerative diseases".

Food & Drug Administration (FDA) Workshop on Potential Clinical Trials for Neural Stem Cells, July 13, 2000, Rockville, MD: "Therapeutic potential for human neural stem cells -- the 'universal donor cell approach'.

NIH Task Force, PULSE Neurology Preservation Group, Leesburg, VA, June 29-30, 2000: "Transplantation – stem cells and fetal tissue"

2nd Congresso Internazionale on La Genetica Nelle Neuroscienze, Session on Neuroregeneration, Terni, Italy, July 2-5, 2000: “Neural stem cells as tools for CNS repair”.

NCI/NINDS PRG on Brain Tumors, Leeesburg, VA, July 14-16, 2000: "Progenitor and stem cells: roles in the understanding and therapy of brain tumors".

Featured lecturer, United Leukodystrophy Association Scientific Retreat, Dekalb, IL, July 20, 2000 (lecture to scientists); July 21, 2000 (lecture to families of affected children): “The potential role of neural stem cells in the leukodystrophies”.

8th International Symposium on Pharmacology of Cerebral Ischemia, July 25, 2000, Marburg, Germany: “Stem cell therapy to reverse cerebral ischemic injury”.

Plenary Speaker, 52nd Annual Meeting of the American Association for Clinical Chemistry, July 26, 2000 San Francisco, CA: "Harnessing self-repair: strategies for reconstructing the brain, including the use of stem cells."

NICHD Conference on Brain Injury in Children, Aspen CO, August 25, 2000: "Neural stem cells: therapeutic insights into plasticity may suggest novel therapies for pediatric brain injury".

American Paraplegia Society Annual Meeting Symposium on “Transplantation-Based Approaches to Spinal Cord Injury, Las Vegas, Nevada, September 5, 2000: “Neural stem cells: Is there a role in spinal dysfunction?”

Featured speaker, National Tay-Sachs and Allied Diseases Organization, September 24, 2000, Brandeis University, Waltham MA: “A potential role for neural stem cells in lysosomal storage diseases”.

The Jerry Elliot Memorial Lecturer, New England Conference on Perinatal Research at Chatham, Chatham, MA, October 5, 2000: “Neural stem cells: developmental insights may suggest novel therapies for the newborn brain”.

Plenary Speaker, Session on Ethics & Professionalism in Emerging and Controversial Areas of Research, Annual Meeting of the Association of American Amedical Colleges’ (AAMC)’s) Group on Graduate Research, Education, and Training (GREAT), October 17, 2000, Savannah, Georgia: “Societal and ethical implication of advances in reproductive technology and genetics”.

Symposium on Stem Cells, Foundation for Fighting Blindness, November 17, 2000, Arlington, VA: “The biology of neural stem cells”.

Keynote Speaker, “Gene & Stem Cell Therapy”, 3rd International Conference on the Lacrimal Gland, Tear Film & Dry Eye Syndrome: Basic Science & Clinical Relevance, Maui, HI, November 18, 2000: “Neural stem cells: the state of the art & future directions”.

Seminar Series in Biology, Boston College School of Graduate Education, Chestnut Hill, MA, November 21, 2000: “Neural stem cells: developmental insights may suggest novel CNS therapies”.

First Annual Conference on Regenerative Medicine, Washington, D.C., December 4, 2000: "The biology of neural stem cells may make them particularly well-suited for regenerative medicine".

Plenary Speaker, 11th International Symposium on ALS/Motorneuron Disease, Arhus, Denmark, December 6, 2000: "A potential role for neural stem cells in motorneuron disease"

Keystone Symposium on "Gene Therapy", January 10, 2001, Keystone CO: "Neural stem cells as gene delivery vehicles to the CNS."

Seminar, Department of Physiology, Program in Cellular and Molecular Physiology, Tufts University School of Medicine, Boston, MA, January 22, 2001: “Neural stem cells: developmental insights suggest novel therapeutic strategies”.

7th Neural Workshop on “Molecular, Cellular and Clinical Aspects of Neurodegenerative Diseases”, January 28, 2001, Zermatt, Switzerland: “The biology of neural stem cells may make them uniquely suited for the treatment of Neruodegenerative Diseases.”

Honorary speaker, 100th Anniversary Symposium, Children's Hospital of Los Angeles, February 9, 2001: "Potential role of neural stem cells in pediatric disease."

Symposium of the Ernst Klenk Foundation on “Stem Cell Biology”, February 11, 2001, Cologne, Germany: “The biology of neural stem cells make them uniquely suited for the CNS gene therapy and repair”.

Salk Institute Sam Hersch Cereral Palsy Symposium, La Jolla, CA, February 27, 2001: “The role of neural stem cells in CNS regeneration”.

Guest lecturer, Cardiovascular Research Seminar Series, St. Elizabeth's Hospital, Brighton, MA, March 7, 2001: "Neural stem cells: developmental insights may offer new therapies for stroke and other neurologic disease"

Hippocratic Society, Harvard Medical School, Cambridge MA, March 10, 2001: "The ethics & biology of stem cell research".

Plenary lecturer, Symposium on "Mesenchymal and Non-hematopoietic Stem Cells", March 24, 2001, New Orleans, LA: "Neural stem cells and their role in CNS development and repair".

Engineering Tissue Growth Conference, March 29, 2001, Pittsburgh, PA, Neural Regeneration Session: "Neural stem cells may be ideally suited for CNS repair".

Keytstone Symposium on "The Molecular Basis of Neurodegenerative Diseases", April 2, 2001, Steamboat Springs, CO: "The unique response of neural stem cells to degenerative environments"

1st International Symposium on the Clinical Use of Cellular Products, Regensburg, Germany, March 30, 2001: "Neural stem cell transplantation" – Member of my lab sent to represent me

FASEB -- Experimental Biology/American Society of Investigative Pathology Maxi-Symposium, April 3, 2001, Orlando, FL,: "Neural stem cells: developmental lessons may suggest new therapeutic options"

Grass Lecturer in the Neurosciences, Society for Neuroscience, University of Louisville, April 19, 2001, Louisville, Kentucky: "Neural stem-like cells: Developmental lessons with therapeutic potential".

Guest speaker, National Tay-Sachs & Allied Diseases Association 23rd Annual Family Conference, Tampa, FL, April 20, 2001: "Could Nerual Stem Cells play a role in Tay Sachs and other neurogenetic diseases"

Grand Rounds, Departments of Neurology and Neurosurgery, Georgetown University Hospital, Washington DC, April 27, 2001: "Neural stem cells: developmental insights may teach therapeutic lessons"

Multiple Sclerosis Society, Beth Israel-Deaconess Medical Center, Patient Scientific Update, Boston, MA, April 28, 2001: "The potential and pitfalls of stem cells for MS".

Keynote speaker, Annual Meeting of the Association for Research in Ophthalmology & Vision Science (ARVO), Fort Lauderdale, FLA, April 29, 2001: "Neural stem cells: a repository for plasticity, a tool for neural regeneration".

John Hopkins University 1st Annual Somatic Cell Therapy Conference, May 6, 2001, Captiva Island, FL: "Growth Differentiation and Applications of Neural Stem Cells".

Stanford University Seminar Series on "Stem Cells & Gene Therapy", Department of Molecular Pharmacology, Palo Alta, CA, May 8, 2001: "Neural stem cells: a repository for plasticity, a tool for neural regeneration".

Grand Rounds, Harvard Longwood Area Neurology Program, Harvard Medical School, Boston, MA, June 6, 2001: "Neural stem cells: developmental insights might suggest therapeutic potentials"

Rett Syndrome Symposium, Rett Syndrome Research Foundation,Washington D.C., June 12, 2001: "The potential role of stem cells in strategies for CNS regeneration".

Annual Prize & Lectureship in Neurodegenerative Genetic Disease, Hospital for Sick Children in Toronto, Jacob's Ladder Foundation, Toronto, ON, June 13, 2001: "A potential role for neural stem cells in the treatment of neurodegenerative diseases".

Keynote Speaker, Symposium on Therapeutic and Drug Discovery Uses for Stem Cells and Related Technologies of Regenerative Medicine, London, UK, June 15, 2001: "Capitalising on the fast advancing science of neural stem cells and their potential application in brain repair.'

The Burnham Institute, La Jolla Cancer Research Center, June 19, 2001, La Jolla, CA: Neural stem cells: Developmental Insights Suggest Novel Therapeutic Interventions"

Massachusetts General Hospital, Harvard Medical School Dept. of Neurosurgery Grand Rounds, Boston, MA, September 13, 2001: "The role of neural stem cells in turning neurosurgery into 'translational developmental biology.'"

European Neonatal Societies Symposium on "New Frontiers in Neonatology: A Global Forum for Research & Science", Heidelberg, Germany, October 5, 2001: "The role of neural stem cells in treatment of neonatal brain disorders".

State-of-the-Art Address, Academy of Pediatrics, Sections on Perinatal Pediatrics & Pediatric Neurology, San Francisco, CA, October 21, 2001: "Will neural stem cells someday play a role in the NICU?"

The 4th Brain Research Interactive Sympsium, Satellite to the 2001 meeting of the Society for Neuroscience: “Stem cells in the mammalian brain”, San Diego CA, November 10, 2001,: “Cell therapy in models of CNS disease”

Association for Research in Nervous and Mental Disease, Annual Meeting devoted to Neural Stem & Progenitor Cells & Their Potential Application to Clinical Neuroscience, New York, NY, December 1, 2001: “Exogenous neural stem cells may augment self-repair in the host.”

Asilomar Conference on Neuroregeneration, Asilomar CA, December 15, 2001: “Neural stem cells in spinal cord dysfunction”

Annual Salk Institute Adler Symposium on Alzheimer’s Disease, La Jolla CA, January 28, 2002: “A potential role for neural stem cells in neurodegenerative conditions”

Thirty-first Critica1 Care Congress, San Diego, CA, January 28, 2002: “Neurointensive Care: Are there Future Prospects for Replacement Therapies? CNS Stem Cell Applications”.

Winter Conference on Brain Research, Snowmass, CO, January 29, 2002: “Stem Cells and CNS Repair”.

Speaker, Symposium on Stem Cells: “The 4 R’s of Stem Cell Therapeutics: Repair, Regenerate, Rejuvenate, Replace”, Biotechnology Industry Organization, CEO & Investor Conference, New York, NY, Februrary 20, 2002: “Reality testing in the stem cell field: the scientist’s view from the bench”.

Keynote Scientific Speaker, March of Dimes, Board of Trustess Meeting, New York, NY, March 21, 2002: “A potential role for neural stem cells in understanding and treating congenital neurological disorders”

Roundtable participant and speaker, “Adult neurogenesis after Stroke”, 23rd Princeton Conference on Cerebrovascular Disease, Coronado CA, February 23, 2002: “Injury consititutively switches developmental programs”.

Newton-Wellsely Parkinson Support Group, Newton-Wellsely Hospital, Newton MA, March 25, 2002: “Hope vs. hype of stem cells for Parkinson’s Disease”.

University of British Columbia, Neurology/Neurosurgery Grand Rounds, Vancouver, B.C., April 10, 2002, “The Biology of Neural Stem Cells”.

Academy of Medical Sciences, “Neurological Rehabilitation – Can we bring clinical practice closer to basic science?”, London UK, April 15, 2002: “Neurological Stem Cells”.

5th International Workshop on Maturation Phenomenon in Cerebral Ischemia, Banf, Canada, April 29, 2002: “Neural stem cells: a potential role in regeneration following ischemic injury”.

Annual Symposium BIO HEALTH 2002, Montreal, Quebec, Canada April 30, 2002: “Experiences in neuroregeneration research”.

FASEB, Stem Cell Symposium, April 21, 2002, New Orleans, LA: The developmental biology of stem cells”.

American Surgical Association Annual Presidential Symposium: “Stem Cells”, April 26, 2002, Virginia: “The biology of stem cells”.

United Jewish Federation, Women’s Division, Annual Topical Meeting, May 8, 2002, San Diego CA: “Stem cells – are they relevant to diseases that afflict the Jewish population?”

University of Michigan Alzheimer's Disease Research Center, the Nathan Shock Center, the Pepper Center/Institute of Gerontology, and the National Institute of Aging, Workshop on Neural Aging, Ann Arbor MI, May 14, 2002: "Harnessing neural stem cell biology for helping to reconstitute the aging CNS".

American Society for Gene Therapy, Meet the Expert Session, Boston MA June 6, 2002

American Society for Gene Therapy, Symposium on Gene Expression in the nervous system, Boston MA June 7, 2002: “Use of genes for understanding development – a cellular perspective.”

Panelist, NINDS Stroke PRG meeting, Denver CO, July 15-17, 2002.

Keynote Speaker, joint American & European Committees for Treatment and Research in Multiple Sclerosis (ACTRIMS/ECTRIMS), Baltimore MD, September 20, 2002: "Neural stem cells: Rebuilding the diseased brain how realistic is this approach?"

Keynote Scientific Speaker, Brain Tumor Society, Quincy, MA, September 21, 2002: "A possible role for neural stem cells in understanding and treating brain tumors"

Keynote Scientific Speaker, Association of American Cancer Institutes, 2002 Annual Meeting, Chicago, IL, September 27, 2002: "Is there a role for stem cell biology in addressing brain tumors?"

Second Annual Conference on Mesenchymal and Nonhematopoietic stem cells: focus on adult stem cells, New Orleans, LA, September 28, 2002: "Neural stem cells: Developmental insights with potential therapeutic lessons".

Discussant, National Multiple Sclerosis Society Interantional Symposium on Repair in the CNS: Mechanisms and Potential for Recovery of Function in MS and Related Disorders, Nice, France, October 5-7, 2002.

Featured Presentation, Strategic Research Institute Symposium on "Stem Cells and Regenerative Medicine", San Diego, CA, October 8, 2002: "Neural stem cells: developmental insights with potential therapeutic lessons".

State-of-the-Art Keynote Lecturer, Annual World Symposium on Lysosomal Storage Diseases, Baltimore MD, October 15, 2002: "Is there a potential for the use of neural stem cells for brain repair?"

Neurobiology of Disease Workshop, Society for Neuroscience Annual Meeting, Orlando, FL, November 2, 2002: Breakout Session: "Diseases and Injuries of the Developing Brain"

Myelin Project Annual Scientific Meeting, Miami, FL, November 9, 2002: "Is there a role for stem cells in the treatment and/or gene therapy for the leukodystrophies?"

Duke University Medical Center, Brain Tumor Seminar Series, Durham, NC, December 11, 2002: "The potential role for neural stem cells in treating and understanding brain tumors"

The Burnham Institute Symposium, "Stem cell technology: recent advances & prospects of commercialization", La Jolla, CA, January 23, 2003: "Neural stem cell therapies".

Department of Neurosurgery, Children's Hospital-San Diego, San Diego, CA, January 30, 2003: "Neurosurgery as translational developmental biology: stem cell biology as a case in point."

National Institute of Drug Abuse, NIH, Symposium on "Stem Cells – Opportunities for Drug Abuse Research, Gaithersburg, MD, February 10, 2003: "Certain aspects of the biology neural stem cells may sutit them for CNS restoration".

American Stroke Association, 28th International Stroke Conference, Plenary Session "The Beautiful Mind: New Cell Birth & Cell Transplantation Therapies", Phoenix AZ, February 13, 2003: "Cell transplantation: is this ready for prime time in stroke".

M.D. Anderson Cancer Center, University of Texas, First Course on Molecular Mechanisms in Brain Tumors, De Lago TX, February 14, 2003: "How the biology of neural stem cells may be applicable to an understanding and treatment of brain tumors"

Celgene, Inc., San Diego CA, February 18, 2003: "Neural stem cells: a prototype for understanding the potential and pitfalls of stem cell biology".

Stand Together, Spinal Cord Injury Advocacy group, *UNIVERSITY OF CALIFORNIA, SAN DIEGO,* La Jolla, CA, Sunday February 23, 2003: "Neural stem cells: developmental insights may suggest therapeutic options"

California Association of Neonatologists (CAN) & American Academy of Pediatrics (AAP) District IX Section on Perinatal Pediatrics, 9th Annual Conference, Current Topic & Controversies in Perinatal & Neonatal Medicine, Plenary Session of Perinatal Stroke, Thrombophilia, & Brain Injury, Los Angeles, CA, March 1, 2003: "The neurobiologists perspective – how the brain repairs itslef and how we may augment that".

Plenary Speaker, MIT & Harvard Hippocratic Societies, 2003 MIT-Harvard Conference on Neuroscience, Plenary Session on "Ethics & Public Policy", Cambridge, MA, March 2, 2003: "The ethics of research & clinical trials: stem cells as a case in point: Bringing stem cell biology to clinical practice: the biological, political, & ethical hurdles".

University of California, San Diego, Guest lecturer, Course in Fetal Physiology – RPR 237, San Diego CA, March 6, 2003: "Stem cell physiology/therapy".

GMP, Inc. Scientific Retreat, Ft. Lauderdale, FL, March 9, 2003: "Aspects of neural stem cell biology may well suit them for CNS repair".

Keynote Speaker, Annual Engineering Tissue Growth (ETG) Conference, March 20, 2003, Pittsburgh, PA: "Neural stem cells may be ideally suited for CNS repair".

St, Judes Children's Research Hospital, Brain Club Seminar Series, Memphis TN, April 2, 2003: "Neural stem cells: developmental insights may suggest therapeutic options".

John W. & Marvelle M. Ridgeway Visiting Scholar Lectureship, University of Missouri-Columbia School of Medicine, Columbia MO, April 3, 2003: "Certain qspects of neural stem cell biology may suit them for CNS restoration" and April 4, 2003: "Can the developmental biology of neural stem cells predict theapeutic utility?".

Joslin Clinic for Diabetes Research, Harvard Medical School, Boston, MA, April 10, 2003: "Neural stem cells as a prototypical progenitor population: developmental lessons may provide therapeutic insights"

International Symposium on Stem Cell Plasticity, Providence, RI, April 11, 2003: "Cross-talk between stem cells: a complexity that enriches therapeutic repertoires".

Harvard Center for Neural Regeneration, Invited faculty commentator on student journal club Boston, MA, May 6, 2003: "The role of neural stem cells in motor neuron replacement and differentiation".

3rd International Congress on Neuroprotection and Neurorepair, Magdeburgh, Germany, May 10, 2003: "Certain aspects of neural stem cells may be ideally suited for neural repair".

National Institute of Aging, NIH, "Stem Cells and Aging", Bethesda MD, May 12, 2003: "Stem cell-mediated neuroprotection in the diseases of aging".

Hunter's Hope, Annual Scientific Meeting, May 15, 2003, Buffalo NY: "The role of stem cells for the leukodystrophies"

Research Symposium, National Multiple Sclerosis Society, New York City Chapter, May 18, 2003, New York, NY: "The potential role of stem cells in demyelinating diseases".

Southern California Human Neural Stem Cell Workshop and Think Tank, University of California, Irvine, May 27, 2003, Irvine, CA: Talk #1: "Maintaining multipotency in neural stem cells" Talk #2: "Transplantation of neural stem cells".

University of Massachusetts 3rd Annual Neuroscience Symposium on "Frontiers in Neuroscience", June 3, 2003, Worcester, MA: "Certain aspects of neural stem cell biology may suit them for CNS restoration"

American Society of Gene Therapy 8th Annual Meeting, Workshop on Neural Disorders: Cellular therapies for neurological disorders, June 5, 2003, Washington DC: "Neural stem cell-mediated cross-talk may provide therapeutic opportunities: Brain tumors -- Low hanging fruit for the neural stem cell field".

The Burnham Institute 25th Annual Symposium, "Stem cell potency, differentiation, and regeneration", June 6, 2003, La Jolla CA: "Certain aspects of neural stem cell biology may suit them for CNS restoration".

Harvard Medical School Longwood Neurology Program Grand Rounds, June 11, 2003, Boston MA: ""Certain aspects of neural stem cell biology may suit them for CNS restoration".

Grand Rounds, Dept. of Neurosurgery, University of California, San Diego, June 19, 2003, San Diego, CA: "Neurosurgery as translational developmental biology -- the role of stem cells"

The MINT Investors Group, June 21, 2003, San Diego, CA: "The future of stem cells".

Sixth IBRO World Congress of Neuroscience, Satellite Symposium on "Neural Stem Cells and Brain Repair", Prague, Czech Republic, July 9, 2003: "Cross-talk between stem cells: implications fro development and repair."

United Leukodystrophy Foundation, DeKalb, IL, July 17, 2003: "Is there a role for stem cells in the treatment and/or gene therapy for the leukodystrophies?"

2003 University of North Carolina at Chapel Hill Cell and Molecular Biology Symposium: Directed Therapeutics: Today's Research, Tomorrow's Medicine, July 18, 2003, Chapel Hill, NC: "Neural stem cells may be well-suited for CNS repair".

14th Congress of the International Society of Neuropathology, Workshop on the "Biology of Neural Stem Cells", September 17, 2003, Turin, Italy: "Certain aspects of neural stem cell biology may suit them for CNS restoration".

The Royal Society, Scientific Discussion Meeting, "New Directions in Tissue Repair & Regeneration", September 25, 2003, London, UK, "Neural stem cells: developmental insights may suggest therapeutic options"

4th Annual European School for Neuroimmunology, Barcelona, Spain, October 1, 2003, "Neuroprotection in neurological disorders using cell therapy".

University of Wisonconsin-Madison Waisman Center 30th Anniversary Special Workshop on "Translating stem cells and growth factors into the clinic for Parkinson's Disease and ALS", Madison, WI, October 9, 2003: "The fundamental biology of neural stem cells may suggest therapeutic options for PD and ALS".

3rd Annual Conference on Mesenchymal & Non-Hematopoietic Stem Cells, New Orleans, LA,October 11, 2003: "Certain aspects of neural stem cell biology may suit them for CNS restoration".

Keynote Speaker, "Stem cells & Regenerative Medicine: Commercial Implications for the Pharmaceutical & Biotech Industries", Strategic Research Institute, Princeton, NJ, October 15, 2003, "Certain aspects of neural stem cell biology may suit them for CNS restoration".

Northern California Achievement Awards for College Scholarships Program, San Francisco, CA, October 21, 2003: "The future of stem cell biology".

The Margot Anderson Brain Restoration Foundation Symposium on "Advances in Brain Restoration", Campus of Rogue Valley Medical Center, Medford, OR, November 1, 2003: "Neural stem cell biology and CNS restoration".

Advanced Trauma Symposium, Children's Hospital and Health Center, San Diego, CA, November 6, 2003: "Neural stem cells".

American Society of Nephrology, Annual Meeting, Plenary Session on Stem Cell Biology, La Jolla CA, November 17, 2003: ""Neural stem cells: exemplar of translational developmental biology".

Grand Rounds, Department of Surgery, Children's Hospital-Boston, Harvard Medical School, Boston, MA, December 3, 2003: "Stem Cells: The Surgeon as Translational Developmental Biologist".

American Society of Hematology, Educational Session: Realistic view of therapeutic cloning and stem cell therapy, La Jolla CA, December 6, 2003: "Stem cells from and for the nervous system".

University of California-San Diego Department of Neuroscience Grand Rounds, La Jolla, CA, December 12, 2003: "Stem cell biology: only lessons from development will provide valid therapeutic insights".

Medical Scientist Training Program Seminar Series, School of Medicine, University of California, San Diego, January 13, 2004, San Diego, CA: "Neural stem cells: exemplar of translational developmental biology".

Sidney Kimmel Cancer Center Symposium on Genomics, Signaling & Tumor Targeting, San Diego, CA, February 17, 2004: "Certain aspects of neural stem cell biology may suit them for brain tumor targeting & CNS restoration".

Spinal cord injury clinical trials workshop, International Campaign for Cures of Spinal Cord Injury Paralysis, Vancouver, B.C., Canada, February 20-21, 2004.

Workshop on Plasticity and Repair in Neurodegenerative Disorders, UCLA and Keck School of Medicine University of Southern California, Lake Arrowhead, CA, February 22, 2004: "Neural stem cells may be well-suited for CNS repair".

Children's Neurobiological Solutions, Scientific Board Retreat, La Jolla, CA, February 27, 2004: "The value to the therapeutic and stem cell community of studying pediatric diseases".

The Society for Law & Medicine and The Thomas Jefferson School of Law Symposium on "Stem Cell Research: New Legal and Medical Frontiers, San Diego, CA, March 4, 2004: "Stem cells from the viewpoint of the biologist".

Issues In Neonatology – 2004, Garden City, Long Island, NY, March 18, 2004: "Neural stem cells may be well-suited for CNS repair".

National Institute of Mental Health (NIMH), National Institutes of Health (NIH) Workshop on Adult Neurogenesis: Defining Opportunities for Psychiatric Research, Washington DC, March 19, 2004: "Neural precursors and restoration of neural function".

University of Minnesotta, Neuroscience Seminar Series, Minneapolis MN, March 26, 2004: "Neural stem cells : developmental biology suggests therapeutic options".

Keynote Lecturer, Children's Research on Injury to the Brain, Children's Memorial Institute for Education & Research (CAMIER) and Children's Memorial Hospital and Feinbeg School of Medicine, Northwestern University, "New Perspectives on Pediatric Brain Injury", Chicago, IL, April 29, 2004: "Neural stem cells: developmental insights may suggest therapeutic strategies".

2nd International Meeting of the Stem Cell Network North Rhine Westphalia, Bonn, April 1, 2004: "Neural stem cells and brain repair".

Pediatric Academic Society State-of-the-Art Plenary Session: "Non-hematopoietic stem cell therapy", San Francisco, CA, May 4, 2004: "Neural stem cells: developmental insights may suggest theapeutic options".

2004 Highman Lectureship, University of California-Davis, Davis, CA, May 5, 2004: "The biology of neural stem cells may equip them for therapeutic use"

American Society for Neural Transplanation & Repair, Annual Meeting, Clearwater, FL, May 7, 2004: "Neuroinflammation's other face: Neuroinflammation's Other Face: Directed migration of human neural stem cells to sites of CNS injury by the SDF1α/CXCR4-dependent pathway

M.D. Anderson Cancer Center, University of Texas, 2nd Course on Molecular Mechanisms in Brain Tumors, Houston, Texas, May 14, 2004, "Neural stem cells: developmental programs and cross-talk"

Institute of Medicine, The National Academies, Committee on Spinal Cord Injury: Strategies in a Search for a Cure, "Technologies & Techniques that may Advance the Search for a Cure", Washington D.C., May 24, 2004: "Is there a role for stem cell treatments for patients with spinal cord injuries?"

Speaker, Biotechnology Industry Organization, "Ethics in Stem Cell & Regenerative Medicine: A Critical Update", June 7, 2004, San Francisco, CA: "Update on stem cell biology: the potential & challenges ahead".

Speaker, Biotechnology Industry Organization, "Regenerative biology in medicine", June 7, 2004, San Francisco, CA: " The role of stem cell biology in regenerative strategies: the CNS as a prototypical organ system".

Speaker, Biotechnology Industry Organization, "Stem cell research advancements & Opportunities", June 9, 2004, San Francisco, CA: "The potential for stem cell-mediated interventionjs in the nervous system"

Speaker & Co-Chairman, "Stem Cells as a Therapeutic Treatment for Pediatric Neurological Disorders: Planning a Phase I Clinical Trial", Children's Neurobiological Solutions & A-T Children's Project, June 16, 2004, Tarrytown, New York: "Stem cell biology as revealed in animal models of neurological disease in children".

Lecturer & Session Chairman, Ernest Schering Research Foundation, Workshop on "Opportunities & Challenges of the Therapies Targeting CNS Regeneration", Napa CA, June 18, 2004: "Neural stem cells for CNS repair: stateof the art and future directions".

Seminar Series, Chemicon, July 12, 2004, Temecula, CA: "Update on the challenges in translating stem cell biology".

Co-Director & Co-organizer, Conference Bioethics and public policy on stem cells, July 14, 2004, La Jolla CA, Center for Ethics & Technology: "Is it possible to say when human life begins? Can ethical, legal and biological coneptions of the human embryo converge?"

Biomedical Ethics Seminar Series, University of California, San Diego, San Diego CA, July 21, 2004: "Traversing an ethical minefiled: the continuing stem cell debate".

Stanford University Medical Center, Baxter Laboratory in Genetic Pharmacology, Palo Alto CA, August 3, 2004: "Reciprocal signalling: how stem cells alter the host in transplantation paradigms".

The Myelin Project, Annual scientific meeting, September 11, 2003, Nice, France: "Neuroinflammation's other face: guiding the behavior of neural stem cells within the injured and degenerating brain"

Symposium on Stem Cell Biology: Development and Plasticity, The Dept. of Biochemistry, Biophysics, and Molecular Biology and the Biotechnology Council of Iowa State University and The Cell Biology Program, Mayo Clinic Cancer Center, September 19, 2004, Ames, IO: "Neural stem cells: developmental insights may guide therapeutic options".

Panelist, The Law, Philosophy, & Culture Initiative of The Catholic University of America, Columbus School of Law with The Konrad Adenauer Foundation, Colloquium on Ethics, Public Policy & Law: The Stem Cell Debate in the United States of America

and the Federal Republic of Germany, Washington, DC, October 5, 2004: "The law of stem cell research in the United States and Germany".

Brain Cell Regeneration Annual Lectureship, Neurologlical Institute of New Jersey, University of Medicine & Denistry of New Jersey, Newark NJ, October 6, 2004: "Neural stem cells may be well suited for CNS repair".

Honoree for contributions to children's neurological health, Children's Neurobiological Solutions, New York, October 7, 2004: "The role of stem cells in children's neurological disease".

Graduate Student Association & The Science Policy Analysis Roundtable on "The Debate of State-Sponsored Stem Cell Research", University of California-San Diego, La Jolla, CA, October 11, 2004: "The promise of stem cell research and the importance of its support in the public sector".

"Perspectives on Science" Lecture Series to San Diego County High School Science Teachers, Point Loma Nazarene University, Point Loma, CA, October 12, 2004: "The potential and pitfalls of the stem cell as a therapeutic tool".

Stem Cell Research Symposium, Willie Brown Institute on Politics & Public Service, San Francisco, CA, October 12, 2004: "The therapeutic potential of "adult" (somatic) stem cells".

Symposium speaker, "Translational Research in Neuro-Oncology: From Bench to Bedside", Annual Meeting of the Child Neurology Society, Ottawa, Quebec, Canada, October 15, 2004: "The promise of neural stem cells for therapy of childhood brain tumors".

Panelist, Symposium on Stem Cell Biology, University of California-Irvine, Irvine, CA, October 20, 2004.

Keynote speaker, The basic sciences, 32nd Annual Meeting, Society of Neurosurgical Anesthesia & Critical Care in conjunction with the Annual Meeting of the American Society of Anesthesiology, San Diego, CA, October 22, 2004: "Stem cells".

Christopher Reeve/Society for Neuroscience, "Hot Topics" in Stem Cell Biology: "Stem Cell Update: Can Evolving Developmental Insights Inform Intelligent Therapeutic Translation & Its Limitations?", The Southern California Stem Cell Consortium, San Diego, CA, October 25, 2004: "Neuroinflammation's other face".

Harvard Club of San Diego, Symposium on "Stem Cell Research: A life in the Balance", San Diego, CA, October 28, 2004: "Scientific aspects of the stem cell debate".

Public Responsibility in Medicine & Research (PRIM&R) (Annual meeting, 30th) & the Applied Research Ethifcs National Association (19th Annual Meeting), 2004 Annual IRB (Internal Review Board), "Communication: The Cornerstone of An Ethical Research Environment", Workshop on "Stem Cells & Therapeutic Cloning: IRB Issues (Hot Spots I)": San Diego, CA, October 29, 2004: "Scientific issues".

Dept. of Bioengineering, University of California-San Diego, Lecture Series, San Diego, CA, October 29, 2004: "The biology of neural stem cells may well suit them for bioengineering approaches to nervous system repair".

Speaker, Young President's Organization, International Biotech Industry Round Table, San Diego, CA, November 11, 2004: "Current stem cell research".

Speaker, National Alliance for Autism Research, Integrating the clinical and basic sciences of autism: a developmental biology workshop, Ft. Lauderdale, FL, November 12, 2004: "The potential value of stem cells in exploring autism".

Basic Science Seminar Speaker, Chemicon, November 15, 2004, Temecula, CA: "The low-hanging fruit in the stem cell field".

Molecular Biology of the Cell, UCSD Graduate School, November 16, 2004, La Jolla, CA: "Stem cells: models for differentiation & therapeutic tools".

Plenary Session Speaker, 7th International Congress of the Cell Transplant Society, a section of the The Transplantation Society, November 19, 2004, Boston, MA: "Neural stem cells: developmental insights may suggest therapeutic options".

Basic Science Seminar Speaker, RheoGene, Inc., November 22, 2004, Norristown, PA: "Gene expression in stem cell biology".

Session Chairman and speaker, UK Foreign Office's Science & Technology Branch, in conjunction with The Saban Research Institute of Children's Hospital-Los Angeles and the University of Southern California: "Joint UK/California Symposium for Stem Cells, Tissue Engineering, & Regenerative Medicine", December 3, 2004, Los Angeles, CA: "Human ES Cells".

Joy Goodwin Lecturer, Auburn University, College of Veterinary Medicine, December 6, 2004, Auburn, AL: "Neural stem cells: developmental insights may suggest therapeutic options"

Lecturer, Joint Degree Program in Law, Health, & the Life Sciences, Consortium on Law & Values in Health, Environment, & the Life Sciences, University of Minnesota Law School, December 8, 2004, Minneapolis, MN: "The stem cell debate: good ethics depend on good facts".

Children's Hospital of Los Angeles & The Saban Research Institute, Bone Marrow Transplantation Research Immunology Division, Los Angeles, CA, December 16, 2004: "Neural stem cells: developmental insights may suggest therapeutic options".

Speaker, United States Army Neurotoxin Exposure Treatment Research Program Development of Inventory of Parkinson's Disease & Parkinsonism Treatment & Research Meeting Series, "Challenges Associated with Cell Differentiation", Tampa FL, January 7, 2005: "Do we really know what cells to replace? The possible need for non-neuronal cells in a chaperone role".

Keystone Symposium "Cental nervous system inflammaation: mechanisms, consequences, and therapeutic strategies", Snowbird, Utah, January 14, 2005: "Inflammation, stem cells, and neurogenesis".

California Research & Cures Coalition, Community Forum, San Diego, CA, January 18, 2005: "The science of stem cell biology and how to write grants to study it".

Panel Speaker, 38th Annual Winter Conference on Brain Research, "Panel: The Differentiation & Functional Potential of Embryonic Stem Cells", Breckenridge CO, January 27, 2005: "Do we really know all the cells to be replaced in a given neurological abnormality or their state of differentiation? The possible need for non-neuronal cells in a "chaperone" role."

Workshop Speaker, 38th Annual Winter Conference on Brain Research, "Workshop: Human embryonic stem cells: Will they ever cure anything?", Breckenridge CO, January 27, 2005: "Highlighting the biological quandaries prior to rationale stem cell translation".

Independent Citizen's Oversight Committee of California , Public Education Forum, February 3, 2005, San Diego CA: "ALS and stem cells".

Speaker, Model Systems Strategic Research Network, Workshop on Evidence in Stem Cell Biology, Arizona State University, Feburary 4, 2005, Tempe AZ: "Chimeras as a source of research in stem cell biology".

Keynote speaker, 13th Annual Western Perinatal Research Meeting, February 19, 2005, Banff, Alberta, Canada: "Neural stem cells: developmental insights may suggest therapeutic options".

Grand Rounds, Brigham & Women's Hospital, Dept. of Anesthesia, March 9, 2005, Boston, MA: "Neural stem cells may be well-suited for CNS repair".

Speaker, "Unlocking the mysisteries of the Pediatric Brain", Annual Research Retreat, Children's Neurobiological Solutions, March 11, 2005, Boston, MA: "Fourteen million children. One Goal. Unlocking the mysteries of the brain."

Keynote speaker, 2005 Annual Institutional Animal Care & Use Committee (IACUC) Conference, Public Responsibility in Medicine & Research (PRIM&R), Applied Research Ethics National Association (ARENA), March 14, 2005, San Diego, CA: "Laboratory Animals – The Real Leaders in Stem Cell Research".

Speaker, *Nature Medicine*, Institute of Molecular Medicine (UCSD), & Salk Institute, "Days of Molecular Medicine: Stem Cells & Human Disease", March 19, 2005, San Diego, CA: "Stem cells & Human Disease".

Seminar Speaker, Dept. of Neurobiology & Anatomy, University of Utah Medical School, April 1, 2005, Salt Lake City, UT: "Neural stem cells: developmental insights may suggest therapeutic options".

Plenary Speaker, Marion Brodie Smymposia Series, American Parkinson Disease Association & Parkinson's Disease Association of San Diego, April 6, 2005, San Diego, CA: "From Prop 71 & Beyond – New Hope for Parkinson's Families".

Plenary Speaker, 11th Annual Workshop of the Association of Professors of Human & Medical Genetics, Del Mar, CA, April 8, 2005: "Advances in stem cell research".

Keynote Speaker, *Stem Cells Research & Therapeutics*, San Diego, CA, April 11, 2005: "Regenerative therapy & tissue engineering".

Speaker, Council on Foundations, San Diego, CA, April 11, 2005: "The science and ethics of stem cells".

Keynote speaker, Colloquium for Science & Religion at Carthage College, "Stem Cell Research: Wrestling with the Future", Kenosha, WI, April 12, 2005: "Stem cell biology: good ethics depend on good facts".

Plenary speaker, University of California-Riverside, Stem Cell Workshop, April 18, 2005, Riverside, CA: "Areas of future research in the stem cell field: complexity and cross-talk".

State-of-the-Art Speaker, Chairman, American Society for Neural Transplanation & Repair, April 30, 2005, Clearwater FL: "Stem/progenitor cells in the nervous system: What is the next step?"

Keynote Speaker, Plenary Session: "Stem Cells Overview", Annual Meeting of the International Society for Cellular Therapy, Vancouver, BC, May 5, 2005: "Neural stem cells".

Keynote speaker, La Jolla Institute of Molecular Medicine, Annual Scientific Retreat, Borrego Springs, CA, May 12, 2005: "Stem cell cross-talk".

Guest Faculty, 1st International Orthopaedic Trauma Course, May 23, 2005, Capri, Italy: "Spinal cord injuries & stem cells".

Featured speaker, 4th Annual Symposium on Biopharmaceuticals, June 4, 2005, San Diego, CA: "The developmental role of stem cells may suggest novel therapeutic applications".

Panelist, Symposium Series on Public Policy & Bioethics, La Jolla CA, June 6-7, 2005: "Human embryonic stem cell research: Are there scientific solutions to the moral dilemmas?"

Keynote Speaker & Chairman, 9th International Conference on Neural Transplantation & Repair, Stem Cells & Progenitors, June 9, 2005, Taipei, Taiwan: Neural stem cells may be well-suited for CNS repair".

Speaker, Neuroscience Society in Goteborg, June13, 2005, Goteborg, Sweden: "The developmental role of stem cells may suggest novel therapeutic applications".

Opponent, Thesis of Mila Komitovas, Univeristy of Goteborg, June 14, 2005, Goteborg, Sweden: "Neurogenesis & gliogenesis after focal brain ischemia".

Chairman & Speaker, Session on Organogenesis, 3rd Annual Meeting of the International Society for Stem Cell Research, San Francisco CA, June 24, 2005: "Dynamics of global chromatin remodeling are pivotal for tracking human stem cell potency".

Meet-the-Expert, 3rd Annual Meeting of the International Society for Stem Cell Research, San Francisco CA, June 24, 2005: "The history and cautions in stem cell research".

Plenary speaker, International III Step: Linking Movement Science & Interventon; Session on "Learning, Adaptation, Recovery (Neural Systems Level, Perception-Action Considerations): "Consideration of developmental programs for neural restoration".
Moderator, Presentations on Perception-Action & Developmental Considerations for Recovery – What is the Human Clinical Evidence?
Panelist, Gordan Panel; University of Utah, Linking Movement Science & Interventon
University of Utah, Salt Lake City, July 18, 2005.

Lecturer, 2005 Biennial Conference, American Civil Liberties Union (ACLU), Issues Worskshop, Stem Cell Research: Implications for civil liberties, New Orleans LA, July 21, 2005.

Guest lecturer, Salute to Science Seminar Series, Midwest Research Institute, Kansas City, MO, August 2, 2005: "Stem Cells: Developmental principles should guide therapeutic strategies".

Lecturer, Wood's Hole (Marine Biological Laboratory) Course on "Pathogenesis of Neuroimmunolgocal Diseases", Woods Hole, MA, August 9, 2005: (1) "Stem cells" and (2) "CNS Repair".

Lecturer, University of California Neurotrauma Research Program, 6th Annual Meeting, Ojai, California, August 12, 2005: "An Introduction to Neural Stem Cells: Neural repair applications".

Speaker, Symposium on "Cell Transplants & Gene Therapy: Insights in Neural Repair" at the 20th Biennial Meeting of the International Society for Neurochemistry & the European Society for Neurochemistry, Innsbruck, Austria, August 23, 2005: "The developmental role of neural stem cells may suggest novel therapeutic applications".

Plenary Lecturer, 20th Biennial Meeting of the International Society for Neurochemistry & the European Society for Neurochemistry, Innsbruck, Austria, August 26, 2005: "Certain aspects of neural stem cell biology may suit them for CNS restoration".

Faculty Lecturer, 24th Annual Mead-Johnson Clinical Scholar Seminar Program, Chatham, MA, September 10 & 11, 2005: "Neural stem cells: developmental insights may suggest therapeutic options".

Keynote Speaker, University of California-Santa Barbara, Department of Molecular, Cellular and Developmental Biology and Neuroscience Research Institute, Annual Scientific Symposium, Santa Barbara, CA, September 15, 2001: "The developmental role of stem cells may suggest novel therapeutic applications".

Keynote Speaker, American Academy of Pediatrics, Biannual Intensive Review Course of Neonatal/Perinatal Medicine, San Diego, CA, September 18, 2005: "Stem cells and the pediatric patient: developmental insights will be the key".

Panelist, Joint Conference between National Institute of Drug Abuse (NIDA), National Institute of Aging (NIA), and the Food & Drug Administration (FDA), "Preparing stem cells for clinical trials", Baltimore, MD, September 27, 2005.

Speaker, Annual Meeting of The French Glial Club (Club des Cellule Gliales), "Targeting of stem cells in the nervous system: therapeutic prospect", Agelonde-Les Londe les Maaures, France, October 15, 2005: "Mobilization of neural precursors in the ischmeic brain".

Lecturer, Unite Mixte de Rescherlche INSERM U-711, Laboratoire de Biologie des Interactions Neurones/Glie, Hopital de Salpetrier, Paris, France, October 17, 2005: "The developmental role of stem cells may suggest novel therapeutic applications".

Speaker, "Faith, Science, & Ethics" symposium, San Diego Center for Ethics in Science & Technology and UCSD Center for Ethics & Spirituality, "Where are we in the stem cell debate?", San Diego, CA, October 20, 2005: "The science of stem cells: good ethics start with good facts".

Lecturer and Pre-Conference Workshop Chairman, IBC International Conference Drug Discovery Series, "Stem cell research challenges: Obstacles to overcome when entering the field of stem cell therapeutics", November 7, 2005, San Diego CA: "Assessing the genetic and epigentic stability of stem cells".

Panelist, Annual scientific meeting of The Preuss Foundation for Brain Tumor Research, Seminar on "Oncolytic viral therapies for brain tumors", November 7-9, 2005, La Jolla CA.

Panelist, Research Ethics Executive Committee conference on Science and the media, November 23, 2005, UCSD, La Jolla CA.

Lecturer, 6th International Congress on Neurorecovery, Institut pour la Recherche sur la Moelle Epiniere et l'Encephale (IME) with the Fondation Ipsen, "Overcoming the deficiencies through the optimization of undamagad neuronal network", December 1, 2005, Paris, France: "Can stem cells impact the central nervous system?".

Lecturer, 1st International Stem Cells & Regenerative Medicine Meeting, "Molecular Embryology to Tissue Engineering & Therapeutics", GeneExpression Systems, January 23, 2006, Burlingame CA: "Assessing the genetic and epigenetic stability of stem cells."

39th Annual Winter Conference on Brain Research, Workshop on "Translational neuroscience & Parkinson's Disease: obstacles to progress", January 26, 2006, Steamboat Springs, CO: "Stem cell-based therapies".

27th Annual Reynolds Historical Lectureship, University of Alabama at Burmingham, February 3, 2006, Burmingham, AL: "Neural stem cells may be well-suited for CNS repair".

2006 American Association for the Advancement of Science (AAAS) Annual Meeting, Symposium on "Stem Cells & Society: Assessing a Grand Challenge", February 17, 2006, St. Louis MO: "The stem cell: developmental insights suggest therapeutic options".

Lecturer & Faculty, First World Parkinson Congress, Symposium on "The future of stem cell therapy", Februrary 26, 2006, Washington DC: "The developmental role of stem cells may suggest novel therapeutic applications".

Speaker, Children's Neurobiological Solutions and AT Children's Project Workshop on: "Neurotrophic factors as therapeutic treatments for pediatric neurological disorders: moving the field forward", March 1, 2006, San Jose CA: "Stem cells and neurotrophic factors".

First International Conference on Cell Therapy & Regenerative Medicine, Instituto de Salud Carlos III (ISCIII), March 7, 2006, Madrid, Spain: "Cellular transplantation and brain injury".

Arthur & Mary Robinson Family Lecturer, University of Colorado Health Sciences Center, March 16, 2006, Denver CO: "The developmental role of stem cells may suggest novel therapeutic applications".

Human Medical Genetics Program, External Board, University of Colorado Health Sciences Center, March 16, 2006, Denver CO: "Relevance of stem cell biology to genetic disease".

Keynote Speaker, 7th Annual Frontiers in Neuroscience Research Day, Medical University of South Carolina, March 17, 2006, Charleston, SC: "Neural stem cells: Past, present, and future".

University Lecturer, The Society of University Neurosurgeons, March 20, 2006, San Diego CA: "Translational stem cell biology".

Lecturer, American Academy of Neurology's 58th Annual Meeting, "Genetics 101: Basic Principles & Recent Progress", April 1, 2006 : "Stem cells for genetically-based neurological disease".

University of California-San Francisco Seminars in Biomedical Sciences, April 5, 2006, San Francisco, CA: "Stem cells: cross-talk & developmental programs".

Keynote Speaker, 22nd Annual Mahoney Institute of Neurological Sciences Retreat, University of Pennsylvania, April 19, 2006, Philadelphia PA:

Annual IACUC lectureship for the graduate programs in Molecular & Cell Biology and in Neuroscience & Behavior, University of Massachusetts-Amherst, April 26, 2006, Amherst MA: "The developmental role of stem cells may suggest novel therapeutic applications".

Advisory speaker, Association of American Medical Colleges, Stem Cell Research Workshop, April 27, 2006, Washington, DC: "Defining the management of stem cell products"

Speaker, 2006 InterWest Partners Life Sciences Advisory Committee Meeting, April 29, 2006, Calistoga Ranch, CA: "CNS cell therapy".

Plenary Speaker & Session Chairman, 4th International Symposium on Neuroprotection and Neurorepair -- Focus 2006: Cerebral Ischemia and Stroke, May 5, 2006, Magdeburg, Germany: " Stem cells appear to exert homeostatic pressure in degenerative or injured CNS environments".

3RD International Meeting, Stem Cell Network North Rhine Westphalia, May 16, 2006, Halle Munsterland, Munster, Germany: "Neural stem cells".

James B. Sidbury Lectureship, Department of Pediatrics, Duke Children's Hospital & Health Center, Duke Medical School, May 23, 2006, Durham, NC: " The developmental role of stem cells may suggest novel therapeutic applications".

Faculty, 9th Annual Meeting of the American Society for Gene Therapy (ASGT) Scientific Symposium on "Embryonic Stem Cells & Tissue Engineering: How to Define Stem & Progenitor Cells for Tissue Repair", June 2, 2006, Baltimore, MD: "Defining the differentiation state of the stem cell best suited for CNS therapy".

Keynote Speaker, Annual Meeting, Children's Tumor Foundation's International Consortium for Molecular Biology of NF1, NF2, & Schwannomatosis, June 6, 2006, Aspen CO: "Can stem cells impact the central nervous system"

Moderator & Speaker, Stem Cell Research Update, Genetics Policy Institute, Stem Cell Policy & Advocacy Summit, Stanford University, June 10, 2006, Palo Alto CA: "Stem cell cross-talk suggests unique therapeutic possibilities".

Scientific Graduation Speaker, Dept. of Neurosurgery, University of California-San Diego, June 16, 2006, La Jolla, CA: "The future of stem cell-based interventions – the science, the ethics, the politics".

Speaker, Bi-annual Lysosomal Diseases and the Brain Conference, Children's Gaucher's Organization, June 25, 2006, Sacremento CA: "Stem cell research and the brain – relevance for lysosomal storage diseases".

Speaker, 50th Anniversary of the *Journal of Neurochemistry* Symposium, 7th Biennial Meeting of the Asian-Pacific Society for Neurochemistry, July 3, 2006, Singapore: "Understanding and harnessing stem cell biology: developmental programs and cross-talk".

Faculty, 24th Annual National Neurotrauma Symposium, Therapies & Trials, July 9, 2006, St. Louis, MO: "Harnessing stem cell biology: developmental programs & cross-talk".

Lecturer, Cold Spring Harbor Laboratory Course on "Mechanisms of Neural Differentiation & Brain tumors", July 10, 2006, Banbury Conference Center, Cold Spring Harbor, NY: "Cellular therapies against brain tumors".

Panelist, University of California Industry-University Cooperative Research Program, July 13, 2006, La Jolla CA: "Inter-Institutional Research Collaborations".

Speaker, Symposium on Stem Cells, 2006 1st World Transplant Congress, July 26, 2006, Boston MA: "Stem cell trafficking and niche establishment".

5th Annual Mt. Desert Island Stem Cell Symposium, "Comparative Models in Stem Cell Research: Perspectives on Cells & Disease", The Jackson Laboratory & Mt. Desert Island Biological Laboratory, August 12, 2006, Salisbury, ME: "Is there a role for stem cells in therapies against brain tumors?"

Keynote Speaker, Cambridge Healthtech Institute's 2nd Annual Back to the Science of Stem Cell Research CELLutions Summit, August 15, 2006, Boston MA: "Certain aspects of neural stem cell biology may suit them for CNS restoration".

Roundtable Participant, Center for the Future of Medicine, Policy Roundtable on Stem Cell Research, web-based, August 16-17, 2006.

Lecturer, Institut de France, Académie des Sciences, Colloque des L' Académie des Sciences: Thérapie cellulaire régénérative (Regenerative Cell Therapy), September 8, 2007, Paris, FR: "Stem cells appear to exert homeostatic pressure in degenerative or injured CNS environments."

Keynote Lecturer, 28th International Congress of Clinical Neurophysiology and the International Federation of Clinical Neurophysiology, September 12, 2006, Edinburgh, UK: "What can stem cells do now?"

MacKeith Basic Science Lecturer, 60th Annual Meeting of the American Academy for Cerebral Palsy & Developmental Medicine (AACPDM), September 14, 2006, Boston MA: "Stem cells: Developmental principles should guide interventions in neurological disease".

Keynote Speaker, 16th International Congress of Neuropathology, September 15, 2006, San Francisco CA: "Stem cell research: Insights & strategies for neurological disorders".

Invited symposium organizer, chair, and speaker, Annual Meeting of the Child Neurology Society: "Future Therapy in Child Neurology", October 21, 2006, Pittsburgh, PA: "Stem cell biology: Harnessing developmental programs to address disorders of the pediatric nervous system".

Annual Henry Dunn Lectureship, Department of Pediatrics, University of British Columbia and British Columbia Children's Hospital, October 27, 2006, Vancouver BC: "Stem cells: developmental principles should guide intereventions in pediatric disease".

Lecturer, 59th Annual Symposium on Cancer Research, "Stem Cells in Cancer & Regenerative Medicine", October 29, 2006, Houston, TX: "Neural transplantation".

Lecturer, EMBO (European Molecular Biology Organization) & SF (European Society Foundation) Joint Symposium on "Stem Cells in Tissue Engineering: Isolation, Culture, Characterization, & Applications", November 1, 2006, Sant Feliu de Guixols (Barcelona), Spain: "Neural stem cells for therapies".

Plenary Lecturer, 27th Annual Meeting of the American College of Toxicology, November 6, 2006, Indian Wells, CA: "Cross-talk between stem cells & the neurodegenerative environment".

Speaker, Health Education Series, Doris A. Howell Foundation for Women's Health Research, November 8, 2006, La Jolla CA: "A realistic look at stem cells & their potential".

Lecturer, Brain Disease Research Center, Ajou University, November 29, 2006, Seoul, Korea: "Understanding & harnessing stem cell biology: developmental programs & cross-talk".

Lecturer, Department of Neurosurgery, Seoul National University College of Medicine, November 29, 2006, Seoul, Korea: "Cross-talk between stem cells and the neurodegenerative environment".

Plenary Speaker, 2nd Annual Meeting of the Korean Society for Stem Cell Research, November 30, 2006, Seoul, Korea: "Understanding & harnessing stem cell biology: developmental programs & cross-talk".

Thesis Opponents's Public Introduction to the Field "The Role of the Complement System in Basal & Ischemia-Induced Neurogenesis", Sahlgrenska Academy at Goteborg University, December 8, 2006, Gothenburg, Sweden: "Cross-talk between stem cells and the injured CNS enviroment: Stem cells appear to exert homeostatic pressure in degenerative or injured CNS environments".

Seminar Speaker, Dept. of Medical Biochemistry, Sahlgrenska Academy at Goteborg University, December 8, 2006, Goteborg, Sweden: "Cross-talk between stem cells and the injured CNS enviroment: Stem cells appear to exert homeostatic pressure in degenerative or injured CNS environments".

Grand Rounds, Department of Pediatrics, University of California-San Diego, and Rady Children's Hospital of San Diego, December 15, 2006, San Diego, CA: "Cross-talk between stem cells and the injured CNS enviroment: Stem cells appear to exert homeostatic pressure indegenerative or injured CNS environments".

Speaker, "Stem cells & multiple sclerosis – prospects & strategies", an International Summit on Stem Cell Research in Multiple Sclerosis co-sponsored by the National Multiple Sclerosis Society & Multiple Sclerosis International Federation, January 17, 2007, San Francisco CA: "Neural stem cells & their application for cell-replacement therapy & gene delivery."

Speaker, National Institutes of Health (MIH), National Science Foundation (NSF) & Multi-Agency Tissue Engineering Science (MATES) Working Group sponsored Workshop on Stem Cell Research for Regenerative Medicine & Tissue Engineering, February 1, 2007, Arlington VA: "Neural Stem Cells: Stem cells exert homeostatic pressure in degenerative or injured CNS environments".

Speaker, Second Annual Symposium: "Stem cell research hits the road", Stanford University, Center for Biomedical Ethics, Program on Stem Cells in Society, February 9, 2007, Palo Alto CA: "Which disease, When? Going where the science leads us".

Speaker, Institute for Cancer Genetics, Columbia University, February 13, 2007, New York NY: "Homeostatic pressure exerted by stem cells in degenerative or injured CNS environments: zinc fingers and epigenetics get added to the mix".

Lecturer, The Values Institute, University of San Diego, February 19, 2006, San Diego CA: "Which disease, When? Going where the science leads us".

Chairman & Panelist, Networking Neural Regeneration, 2nd Annual Conference on the Commerical Implications of Stem Cell Research at the 14th International Molecular Medicine Tri-Conference, March 2, 2007, San Francisco CA: "The Clinical Perspective: Which disease, When? Going where the science leads us -- Low Hanging Fruit in the Neural Realm of the Stem Cell Field".

Session Chairman & Speaker, 2nd NIH/National Institute of General Medical Science Workshop on Human Embryonic Stem Cell Research: Recent Progress & Future Directions, Gene Regulation & Epigenetic Control, March 13, 2007, Bethesda MD: "Global chromatin state & its modifications – a useful tool for monitoring human embryonic & somatic stem cell potency & stability".

Speaker, Children's Hospital of Orange County Stem Cell Symposium: "Stem Cell Therapies for Pediatric Diseases & Injuries: A critical Evaluation", March 15, 2007, Anaheim CA: "Overview & Alternatives".

Speaker, Alzheimer's Disease: Update on Research, Treatment, & Care, UCSD School of Medicine, April 12, 2007, San Diego CA: "Stem cells & AD".

Speaker, CONNECT Frontiers in Science Lecture Series, April 26, 2007, San Diego CA: "Stem cells and the neurodegenerative environment; going where the science leads us".

Lecturer, 59th Annual Meeting of the American Academy of Neurology, Basic Science Committee's Conference on the Future of Neuroscience:"Therapy of Genetic Disorders", May 4, 2007, Boston MA: "Stem cells may impact neurogenetic disorders through multiple mechanisms".

Panelist/Lecturer, Expert Advisory Board on Stroke Rehabilitation & Stroke Recovery Advisory Board, GE Healthcare, "Understanding the unmet needs in Stroke Rehabilitation", May 17, 2007, Boston MA; "Stem cell therapy for stroke recovery".

Panelist, Annual Meeting of the Society of American Business Editors & Writers, May 22, 2007, Anaheim CA: "Coverage of stem cells – the science, the politics, the money".

Speaker, Educational Session: Emerging Field Review: "Strategies for Stem Cell Therapies", 1oth Annual Meeting of the American Society of Gene Therapy, May 30, 2007, Seattle WA: "Understanding & harnessing stem cell biology: developmental programs & cross-talk".

Speaker/Faculty, Biosymposia Conference on "Stem Cells & CNS Regeneration", June 1, 2007, Boston MA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Lecturer, Hadassah International Symposium in Neurology Celebraint ghte 70th Anniversary of the Dept. of Neurology, June 4, 2007, Jerusalem, Israel: "Overview: Stem cell therapy".

Nominated Speaker, 7th Annual Millipore BioForum, "New Frontiers in Life Science Research", June 19, 2007, Tokyo, Japan: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Lecturer, Universite Pierre & Marie Curie, Laboratory of Jacques Mallet, June 24, 2007, Paris, France: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Speaker & Panelist, La Jolla Biotech Day, Spotlight on Science, July 26, 2007, San Diego CA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Lecturer & Faculty Member, 8th International Society for Neuroscience (ISN) Advanced School of Neurochemistry: "Neurodegenerative conditions: cause and cures", August 16, 2007, Vallodolid, Mexico: "The homeostatic pressure exerted by stem cells in degenerative and injured CNS environments".

Lecturer, Case Western Reserve University, National Center for Regenerative Medicine, Neural Engineering Center, Dept. of Biomedical Engineering, September 7, 2007, Cleveland OH: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Speaker, New Horizons in Stem Cell Research Seminar Series, University of California-Irvine Sue & Bill Gross Stem Cell Research Center, September 12, 2007, Irvine CA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Faculty speaker, Young Scientists Workshop, University of California-Santa Barbara Neuroscience Research Institute & Children's Neurobiological Solutions, September 17, 2007, Solvang, CA: "Stem cells may benefit pediatric neurodegenerative diseases". (Faculty member Sept. 16-19, 2007).

State-of-the-Art Lecturer, 33rd Annual New Englang Conference on Perinatal Research, October 1, 2007, Pleasant Bay, Chatham, MA: "Stem cells: Cross-talk and developmental programs suggest therapeutic options for pediatric disease".

Chairperson & Speaker, 41st Wesetern Regional Meeting of the American Chemical Society (ACS), Frontiers in Chemistry, Biopharmaceuticals, & Biotechnology, Technical Session: Stem Cell Research, October 10, 2007, San Diego CA: "Introduction to stem cell biology for chemists".

Symposium Speaker, Stem Cell Therapy in Neuromuscular Disorders, 54th Annual Meeting of the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM), October 18, 2007,Phoenix AZ: "Human stem cell therapy: With great promise comes great responsibility".

Session Chairperson, 2nd Annual Stem Cell Meeting on the Mesa, Panel on Technologies: New Methods & Advances in Technology, October 19, 2007, La Jolla, CA.

Lecturer, State of the Art Series: "Hypoxic-Ischemic Encephalopathy: From Theory to Reality & Back Again", 2007 Section on Perinatal Pediatrics Annual Program, American Academy of Pediatrics National Conference, October 26, 2007, San Francisco, CA: " The future state: does stem cell therapy have potential to improve outcomes in HIE?"

Speaker & White Paper Contributer, STEPS (Stem Cell Therapies as an Emerging Paradigm in Stroke) Program, "Bridging basic & clinical science for cellular & neurogenic factor therapy in treating stroke", October 27, 2007, Arlington, VA:"Combining stem cell & gene therapies".

Chairperson, 4th Annual Christopher Reeve Symposium: "Hot Topics in Stem Cell Biology", November 5, 2007, San Diego, CA.

Owen Gardner Memorial Lecturer, Milton S. Hershey Medical Center, Pennsylvania State University, November 28, 2007, Hershey PA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Lecturer, Seminar Series, Eli & Edythe Broad Center of Regenerative Medicine Stem Cell Research & Jonsson Comprehensive Cancer Center, University of California, Los Angeles (UCLA), December 6, 2007, Los Angeles CA: "Homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Speaker/Discussant, National Cancer Institute, Workshop on the Biology of Brain Metastasis, January 31-February 1, 2008, Bethesda MD: " Stem cell biology and brain metastases".

Discussant, Adler Foundation Symposium on Alzheimer's Disease, Salk Institute, February 4-6, 2008, La Jolla, CA: "Exogenous stem cells".

Speaker & Discussant, Pediatric Static Brain Injury Workshop: Plasticity & Regenerative Therapy, Texas Children's Hospital & Children's Neurobiological Solutions Foundation, February 11-12, 2008, Houston TX: "Repair & treatment using neural progenitor cells" & "Repair & treatment using novel cell therapies".

Speaker, Session on Stem Cells & Regenerative Medicine, Combined Annual Meeting of the American Society for Blood & Marrow Transplantation (ASBMT) & the Center for International Blood & Marrow Transplant Research (CIBMTR), February 16, 2008, San Diego CA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Colloquium Speaker, “New Aproaches to the Therapy of CNS Storage Disorders”, 39th Annual Meeting of the American Society for Neurochemistry, March 3, 2008, San Antonio TX: “Therapeutic horizons: Is there a role for neural stem cells against lysosomal stoarge diseases”.

Lecturer, NIH Human Embryonic Stem Cell Course, Children’s Hospital of Orange County, March 10, 2008, Annaheim CA: “Stem cell transplantation”.

Speaker, 15th Annual Meeting of the American Society for Neural Therapy & Repair, Session on Stem Cell & Development, May 2, 2008, Clearwater FL: “Co-patterning of neuroectoderm & vascular endothelium at the earliest stages of embryogenesis as modeled by human embryonic stem cells”.

Featured Speaker, Reuben H. Fleet Science Center, May 8, 2008, San Diego, CA: “Introduction to stem cells”.

Keynote Speaker, 2008 Annual meeting of the Society for Neuroscience, Oregon Chapter, May 9, 2008, Troutdale, Oregon: “The homeostatic pressure exerted by stem cells in degenerative & injured CNS environments”.

Panelist, “Wrestling with Creation”, President’s Conference “Facing Tomorrow” on the Occasion of the 60th Anniversary of the Birth of the State of Israel, May 14, 2008, Jerusalem, Israel: “The application of stem cells in disease”

Speaker, Stem Cell Mini-Symposium, Hadassah Medical Organization & The Hadassah Human Embryonic Stem Cell Research Center & The Goldyn Savad Institute of Gene Therapy, May 14, 2008, Jerusalem, Israel: “The homeostatic pressure exerted by stem cells in degenerative & injured CNS environments – developmental programs”.

Speaker/Panelist, The Fishman Fund & The Samuel & Rebecca Astor Judaica Library, “A Community Effort to Treat Childhood Diseases”, May 22, 2008, San Diego CA: “ Stem cells & childhood disease”.

Speaker, 1st Annual Symposium of the Stem Cell & Regenerative Medicine Center of Thomas Jefferson University, June 11, 2008, Philadelphia PA: "Stem Cell Biology & Its Role in Intrinsic Developmental & Regenerative Programs; Cross-Talk in Stem Cell Biology"

Panelist, in conjunction with the Annual Meeting of the International Society for Stem Cell Research, Millipore-sponsored panel discussion on “Opinions on iPS cells and their future in stem cell research”, June 12, 2008, Philadelphia PA.

Seminar Speaker, College of Medicine, University of Illinois at Chicago, Department of Anatomy & Cell Biology, June 18, 2008, Chicago, Ill: “ The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments – Cross-talk in stem cell biology”.

Plenary Speaker & Chairman, 2008 European Union meeting of the Tissue Engineering & Regenerative Medicine International Society (TERMIS), June 25, 2008, Porto, Portugal: “New developments in neural tissue engineering”.

Plenary Lecturer, 48th Annual Meeting of the Teratology Society, Symposium on “The embryonic stem cell & beyond”, July 1, 2008, Monterey CA: “The homeostatic presure exerted by stem cells in degenerative or injured CNS environments”.

Faculty lecturer, Gordon Research Conference. “Signal transduction by engineered extracellular matrices”, July 10, 2008, Bates College, Lewiston ME: “Cross-talk in stem cell biology”.

Faculty lecturer, Cold Spring Harbor Laboratory Course on “Mechanisms of neural differentiation & Brain Tumors, Cold Spring Harbor, August 4, 2008, Long Island, NY: “Some fundamental aspects of stem cell biology that might inform tumor pathophysiology"

Keynote Speaker, Inaugural Peter Eriksson Memorial Symposium on Novel Strategies for Brain & Spinal Cord Repair, August 11, 2008, Sahigrenska Academy at University of Gothenburg, Gothenburg, Sweden: “Cross-talk in stem cell biology – an important basis for functional restoration.”

Keynote Speaker, Annual Retreat, Medical Scientist Training Program (MSTP), University of California-San Diego, School of Medicine, August 16, 2008, Big Bear Lake, CA: “Bridging a clinical & basic science research career”.

Robert Gross Lectureship, Department of Pediatric Surgery, The University of Texas Medical School – Houston, August 21, 2008, Houston, TX: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments – Cross-talk & developmental programs”

C.N. John Liu Memorial Lectureship, Dept. of Cellular & Developmental Biology, University of Pennsylvania School of Medicine, September 9, 2008, Philadelphia, PA: “Cross-talk & developmental programs in stem cell biology”.

Plenary Lecturer, 10th International Conference on Neural Transplantation & Repair, September 12, 2008, Freiburg, Germany: "Brain repair mechanisms; The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Lecturer, NIH human embryonic stem cell course, Scripps Research Institute, September 16, 2008, La Jolla, CA: "Stem cell transplantation".

Speaker, Merck Research Laboratories Symposium on CNS Regeneration & Repair, September 18, 2008, Boston, MA: "Cross-talk & Developmental Programs in Stem Cell Biology".

Keynote Speaker, Annual Fetus & Newborn Conference State of the Art Care, October 23, 2008, San Diego, CA: "Developments in Stem Cell Research: Neonatal Implications".

Speaker, Canavan Research Summit 2008, October 25, 2008, White Plains, NY: " By virtue of their multiple actions, stem cells may play a role in neurogenetic diseases of childhood".

Speaker, 1st Annual Sanford Children's Health Research Center Scientific Symposium, October 31, 2008, Sioux Falls, SD: "Cross-talk & developmental programs – a key to translational stem cell biology".

Faculty, Innovations in Pediatric Medicine, sponsored by Morgan Stanley Children's Hospital of New York-Presbyterian Columbia University Medical Center and Columbia University College of Physicians & Surgeons, November 8, 2008, New York, NY: Stem cell therapeutics for childhood neurological diseases".

Speaker, University of Connecticut Stem Cell Institute, December 10, 2008, Farmington, CT: "Cross-talk & developmental programs in stem cell biology".

Leading Edge Lecturer, City of Hope, January 9, 2009, Duarte CA: "Cross-talk & developmental programs in stem cell biology".

Lecturer/Speaker, Annual Meeting of the Pediatric Orthopaedic Society of North American, Symposium on Stem Cells in Pediatric Orthopaedics: Bench to Bedside, February 28, 2009, Las Vegas NV: " Cross-talk in stem cell biology – the pivotal component in regenerative medicine".

Speaker, "Issues in Neonatology, 2009", Harvard Medical School Department of Continuing Education, March 26, 2009, Boston MA: "Cross-talk & developmental programs in stem cell biology."

Speaker. Presidential Plenary Session on "Progress Towards Development of Stem Cell-Based Therapeutics", 2009 Annual Clinical Genetics Meeting of the American College of Medical Genetics. March 29, 2009, Tampa, Fl: "Cross-talk & developmental programs in stem cell biology."

Keynote Speaker, Public Responsibility in Medicine & Research (PRIM&R) 2009 IACUC Annual Conference: "Our Public Responsibility to Animals & Society", March 31, 2009, San Diego, CA: "Cross-talk & developmental programs in stem cell biology"

Speaker, National Tay-Sachs & Allied Diseases Association Science Symposium: New Topics in LSD Therapies, April 2, 2009, Quincy MA: "Is there a role for stem cells in neurogenetic diseases of childhood?"

Speaker, FASEB-2009, American Association of Anatomists, Stem Cell Mini-Meeting, Session on "Biology & Potential Therapeutic Applications of Stem/Progenitor Cells", April 21, 2009, New Orleans LA: "The homeostatic pressure exerted by stem cells in degenerative or injured CNS environments".

Speaker, University of California-Riverside, Stem Cell Seminar Series, April 23, 2009, Riverside CA: "Cross-talk in stem cell biology & developmental programs".

Public Forum Speaker, International Society for Cellular Therapy (ISCT), May 4, 2009, San Diego CA: "Application of stem cells for disease".

Plenary speaker & Chair of Plenary Session on Neural Stem Cells, Annual International Society for Cellular Therapy (ISCT), May 6, 2009, San Diego CA: "Basic up-to-date overview: cross-talk & developmental programs in stem cell biology"

Hunt Wilson Lectureship, 2009 Annual Meeting of the American Association of Neurological Surgeons (AANS), May 4, 2009, San Diego, CA: "Cross-talk & developmental programs – a key to stem cell-mediated approaches to CNS pathology".

Speaker, Symposium on "Stem Cells & Immunity in Glioma Therapy", Cedars-Sinai Medical Center, May 8, 2009, Los Angeles, CA: "Cross-talk & developmental programs in stem cell biology".

Lecturer, Meade-Johnson 74th Perinatal & Development Medicine Symposium, "Stem Cells: A Niche for the Neonate", May 29 & 30, 2009, Aspen CO: Lecture #1 – "Stem cell biology & its relationship to CNS disease & repair"; Lecture #2 – "The potential of stem cell-based interventions for babies with hypoxic-ischmeic brain injury".

Speaker, 2nd Annual Chicago Symposium on Translational Neuroscience, University of Chicago, Dept of Neurology & Program in Pathobiology & Translational Neuroscience, June 2, 2009, Chicago IL: "Cross-talk & developmental programs in stem cell biology -- a key to translational neuroscience".

Panelist, Ethical Issues in Scicnce & Medicine, President's Circle Event, June 28, 2009, La Jolla CA

Speaker, Symposium on "Neuronal Regeneration/Degeneration:Response to Injury in Developing & Mature Nervous Systems", 24th International Symposium on Cerebral Blood Flow, Metabolism, & Function & 9th International Conference on Quantification of Brain Function with PET, July 1, 2009, Chicago IL: "What is critical for advancing regenerative therapies in the immature brain?"

Speaker, UCSD Biomedical Ethics Seminar Series, July 22, 2009, San Diego, CA: "New developments and ethical challenges in stem cell research".

Keynote Lecturer, 2nd World Congress of the Tissue Engineering & Regenerative Medicine International Society in conjunction with the 2009 Seoul Stem Cell Symposium, September 2, 2009, Seoul, Korea: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

25th annual Goldberg Family Lecturer, Dept. of Neurology & Center for Translational Neuromedicine, University of Rochester, September 25, 2009, Rochester NY": "Cross-talk & developmental programs – a key to stem cell-mediated approaches to CNS pathology".

The LM Stephenson Lectureship (Annual Discovery Day Featured Speaker), Drexel University College of Medicine, October 7, 2009, Philadelphia, PA: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine"

Inaugural Gerald Merenstein Keynote Speaker, 2009 American Academy of Pediatrics National Conference & Exhibition (NCE), October 16, 2009, Washington DC: "Cross-talk & developmental programs – a key to stem cell-mediated approaches to neurological abnormalities of the newborn".

Chairman, Nanosymposium on Stroke, 2009 Annual Meeting of the Society for Neuroscience, October 18, 2009, Chicago IL.

Speaker, 2nd Annual Israeli Presidential Conference: *Facing Tomorrow 2009*, Panel on: "Breaking through Tomorrow: Science Pushes the Limits of the Imagination", October 22, 2009, Jerusalem, Israel: "Health care & regenerative medicine".

Speaker, University of Florida-Gainsville, Dept. of Pediatrics & McKnight Brain Institute, October 29, Gainsville FL: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

Keynote Speaker, Late Onset Tay-Sachs Disease Research & Education Foundation, November 1, 2009, Los Angeles CA: "Is there a role for stem cells in neurogenetic diseases?"

Chairman, Session on Epigenetics, 4th Annual Stem Cell Meeting on the Mesa, November 11, 2009, La Jolla CA.

Speaker, Hot Topics in Neonatology, December 7, 2009, Washington DC: "Cross-talk in stem cell biology & developmental programs".

Keynote Speaker, American Academy of Pediatrics NeoPrep Course, February 6, 2010, Newport Beach CA: "The future role of stem cell biology in newborn care".

Panelist, Leadership, Legacy, Life Organization (Leaders Building Legacies for Life), March 12, 2010, San Diego, CA: "Stem cells – what does the future hold?"

Brain Awareness Week Lecturer, Brain Awareness Symposium, St. Louis University School of Medicine, March 18, 2010, St. Louis MO: "Cross-talk & developmental programs in stem cell biology".

Chairman, Session on Use of Large Animal Models in Stroke, "2nd Stem Cell Therapies as an Emerging Paradigm for Stroke (STEPS)" workshop on stroke therapeutics, March 20, 2010, Houston, TX.

Seminar Speaker, Dept. of Anatomy & Neurobiology, Medical College of Virginia, April 2, 2010, Richmond, VA: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

Chairman, Session on Movement Disorders, 34th Annual Meeting of the American Academy of Neurology, April 14, 2010, Toronto, ON, Canada.

John S. Latta Lectureship, University of Nebraska Medical Center, April 23, 2010, Omaha Nebraska: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

Chairman & Speaker, Session on Stem & Progenitor Cells, 17th Annual meeting of the American Society for Neural Therapeutics & Repair, April 30, 2010, Clearwater, FL: *Talk #1*: "Communication via gap junctions underlies early functional & beneficial interactions between grafted neural stem cells & the host"; *Talk #2*: "Lineage mapping of glioblastoma suggests a polyclonal, non-hierarchical stem cell origin influenced by a pharmacologically reversible neurogenic-to-gliogenic switch."

Speaker, Pediatric Academic Societies, Symposium on Stem Cell Therapies for Diseases of Childhood, May 3, 2010, Vancouver, BC, Canada: "Neural Stem Cells in the Repair of Hypoxic-Ischemic Brain Injury"

Keynote/Plenary speaker, International Child Neurology Congress (ICNC), May 6, 2010, Cairo, Egypt: "Neural Stem Cells for CNS Repair & Neurodegenerative Diseases in the Pediatric Population."

Lecturer, "Emerging Field Review: Progress Towards Using ES/iPS Cells for Regenerative Medicine", 13th Annual Meeting of the American Society of Gene & Cell Therapy, May 19, 2010, Washington, D.C.: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

Chairman & Speaker, Symposium on "Stem Cells & Malignancy", 13th Annual Meeting of the American Society of Gene & Cell Therapy, May 21, 2010, Washington, D.C.: " 'Lineage-mapping' the development of a brain tumor".

Faculty Speaker, Annual Meeting of the American Society of Clinical Oncology, Educational Session on "Stem Cells in Neuro-Oncology", June 6, 2010, Chicago, IL: "Using stem cells to treat brain tumors".

Visiting Professor, Danny Thomas Lecture Series, St. Judes Children's Research Hospital, June 18, 2010, Memphis TN: "Cross-talk & developmental programs in stem cell biology – a key to regenerative medicine".

Speaker, California ALS Research Network, 1st Annual ALS Summit, June 27, 2010, San Francisco, CA: "Biologic & therapeutic lessons from the study & implantation of exogenous neural stem cells in animal models of motor neuron degeneration".

Co-chair, Symposium on Eliminating the barriers to clinical trials and treatments for pediatric neurobiological disorders, July 15-16, 2010, Washington, DC

Lecturer, Cold Spring Harbor Laboratories Course on "Mechanisms of neural differentiation & brain tumors", July 25, 2010, Cold Spring Harbor Labs Banbury Campus, Lloyd Harbor, NY: "Using our growing knowledge of fundamental stem cell biology to understand brain tumor development & behavior".

Lecturer, Doris Howell Foundation Lecture Series, August 5, 2010, La Jolla, CA: "A Realistic Look at Stem Cells & Their Potential; Stem Cell Biology – A Key to Regenerative Medicine".

Speaker, Department of Neuroscience Grand Rounds, University of California, San Diego, August 20, 2010, La Jolla, CA: An update on stem cells: Cross-talk & Developmental Programs in Stem Cell Biology -- A Key to Regenerative Neuroscience".

Faculty Speaker, "Perspectives of Stem Cells: 1st Meeting on Stem Cell Research of the Instituto de Quimica", University of Sao Paulo, September 21, 2010, Sao Paulo, Brazil: "Cross-talk & Developmental Programs in Stem Cell Biology -- A Key to Regenerative Medicine".

Keynote/Opening Speaker, 1st Stem Cell Symposium with International Participation, Ondokuz Mayis University (co-sponsored by Samsun Stem Cell Society, Hematology Specialty Society, & Society of Regenerative Medicine), September 29, 2010, Samsun, Turkey: "Cross-talk & Developmental Programs in Stem Cell Biology -- A Key to Regenerative Medicine".

Presidential Lecturer/Keynote Speaker, 6th International Symposium of Neuroprotection & Neurorepair, October 4, 2010, Rostock-Warnemünde, Germany: "Cross-talk & developmental programs in stem cell biology -- a key to translational neuroscience".

Speaker & Moderator, 2010 World Stem Cell Summit, Session of "Spinal Cord Injury, Paralysis, and MS", October 6, 2010, Detroit, MI: "The Multiple Actions of Stem Cells in Spinal Cord Dysfunction".

Guest Speaker, HeadNorth Foundation for Chronic Spinal Cord Injury Scientific Advisory Board Meeting, October 21, 2010, San Diego CA: "Restoring the future? The potential role of stem cells in chronic spinal cord injury"

Guest Speaker, Cerebral Palsy: Review & Update 2010, Children's Hospital-Boston & Harvard Medical School, October 25, 2010, Boston MA: "Stem cell treatment for CP: State of the Art".

Panelist, National Institutes of Heath Meeting: "Using Stem Cells to Model Psychiatric Disorders", October 26, 2010, Bethesda, MD: "Scalable, efficient, rapid, & uniform neural induction of human pluripotent cells for high-throughput drug screening & comprehensive proteomic profiling of neuropsychiatric disorders".

Visting Faculty Speaker, Santa Clara Valley Medical Center Newborn Intensive Care Unit 5th Annual Neonatal Conference: Critical Issues in Neonatal, Perinatal, & Pediatric Care, November 6, 2010, San Jose CA: "Cross-Talk & Developmental Programs – A Key to the Potential Role of Stem Cell Biology in Neonatal, Perinatal, & Pediatric Therapeutics"

Faculty/Speaker, 77th Perinatal & Developmental Medicine Symposium, American Academy of Pediatrics, Section on Perinatal Pediatrics, November 13, 2010, Marco Island, FL: Basic Science Lecture: "Cross-Talk & Developmental Programs in Stem Cell Biology -- A key To Regenerative Medicine"; Clinical Science Lecture: "Stem Cell Biology & Its Relationship to CNS Development, Disease, & Repair".

Speaker, California Institute for Regenerative Medicine Bridges Program, California State University–San Marcos; Department of Biological Sciences, December 2, 2010, San Marcos, CA: "Cross-Talk & Developmental Programs in Stem Cell Biology -- A Key to Regenerative Medicine".

Chairman, Moderator, Organizer, Speaker, Panel on "Disease-in-a-dish – Will it Translate?", 5th Annual Stem Cells on the Mesa Symposium, Sanford Consortium for Regenerative Medicine, December 7, 2010, San Diego, CA.

35th Annual Preston Robb Lecturer, Division of Pediatric Neurology & Montreal Children's Hospital-McGill University Health Center, December 8 & 9, 2010, Montreal, Canada: Lecture #1: Is there a role for stem cell biology in future pediatric therapeutics?"; Lecture #2: "Cross-talk & developmental programs in stem cell biology – a key to translational neuroscience"

Keynote Speaker, 2011 University of Toronto Neuroinflammation Symposium & End-Multiple Sclerosis Research Retreat, February 4, 2011, Toronto, Ontario, Canada: Lecture #1: "A stem cell primer: Neural stem cells for CNS repair & regeneration"; Lecture #2: "Disorders of myelin from the perspective of a stem cell-ologist".

Panelist/Speaker, The Preuss Foundation Seminar on "Glioma Biology: Recent Advances at the Edge of Discovery", March 10, 2011, La Jolla, CA.

NIH-funded Symposium on "Frontiers in Stem Cells in Cancer", Howard University, March 17, 2011, Washington, D.C.: "Cross-Talk & Developmental Programs in Stem Cell Biology – The Key to Regenerative Medicine".

Panelist, Special Symposium around awarding of the Kyoto Prize to Shinya Yamanaka, "The Promises & Challenges of iPSC", April 6, 2011, La Jolla CA: "Disease-in-a-Dish – Using iPSCs to Model Diseases for the Purpose of Drug Discovery: Potential & Pitfalls".

Lecturer, 3rd Bi-annual Shanghai Neonatal Forum, "Brain Damage & preterm infant management in NICU", Children's Hospital of Fudan University, April 9, 2011, Shanghai, China: "Potential Role of Stem Cells in Understanding & Treating Brain Damage in the Newborn & Pediatric Population".

Lecturer, Reuben H. Fleet Science Center Lecture Series, April 12, 2011, San Diego CA: "The Biology of Stem Cells: Is this Nature's Tool Kit for Constructing & Maintaining the Body? And Can We Learn to Use It?"

Faculty speaker, 1st Annual Stem Cell Therapies for Neurological Disorders: Overcoming the Current Barriers to Clinical Translation, sponsored by Cedars-Sinai Medical Center & the Genetics Policy Institute, April 30, 2011, Los Angeles, CA: "The Multiple Actions of Stem Cells in Spinal Cord Dysfunction".

Chairman, organizer, speaker, Symposium on "Disease-in-a-Dish", 11th Meeting of the International Society for Neural Therapy & Repair, May 7, 2011, Clearwater, FL: "The ability of stem cells to model pathophysiology in vitro & facilitate drug discovery may represent an under-recognized contribution to neural therapeutics".

Speaker, Symposium on Cancer Therapeutics, 11th Meeting of the International Society for Neural Therapy & Repair, May 7, 2011, Clearwater, FL: "Mapping the lineage relationships of glioblastoma suggests a stem cell origin influenced by non-autonomous factors & a neurogenic-to-gliogenic switch"

Keynote speaker, 17th Annual Kentucky Spinal Cord & Head Injury Research Trust Symposium, May 19, 2011, Louisville, Kentucky: "Cross-talk & developmental programs in stem cell biology – a key to translational neuroscience (focusing on spinal dysfunction)".

Speaker, Canavan Research Summit 2011, June 4, 2011, Harrison, NY: "The intriguing role that gap junction coupling might play in stem cellmediated rescue of degenerating neural cells" and "Disease-in-a-Dish Biology & Technology".

Speaker, Annual Paul F. Glenn Symposium on the Biology of Aging, "Stem Cell Research & Aging", June 15, 2011, Santa Barbara, CA: "Is There a Role for Stem Cell Biology in Addressing Neurodegenerative Conditions?"

Lecturer, 29th Annual National Neurotrauma Symposium, Session on "Reconstructing the Injured Brain & Spinal Cord with Stem Cells - State of the Science," July 13, 2011, Hollywood Beach, FL: Strategies for Enhancing Neural Stem Cell Efficacy in the Host CNS.

Speaker, 23rd Annual Usha Mahajani Symposium On Molecular Medicine, "Stem Cells in Cancer", The Salk Institute, September 16, 2011, La Jolla, CA: "Mapping the lineage relationships of glioblastoma suggests a stem cell origin influenced by non-autonomous factors & a neurogenic-to-gliogenic switch".

Moderator & Speaker, 7th Annual 2011 World Stem Cell Summit, Session: "Stem Cell Translational Report: ALS, Parkinson's & Other Neurological Diseases", October 5, 2011, Pasadena, CA: "Is there a role for stem cell biology in addressing neurodegenerative conditions?

Scientific Keynote Speaker, San Diego Superior Court Judges Retreat, October 16, 2011, Palm Springs, CA: "The Biology of Stem Cells: Nature's "Tool Kit" for Constructing & Maintaining the Body Can We Learn to Use It?"

Plenary Speaker, 4th Annual Meeting of the Australasian Society for Stem Cell Research, October 23, 2011, Leura, Blue Mountains, New South Wales, Australia: "Stem Cells & Neurodegenerative Diseases: Prospects for Therapies".

Lecturer, Santa Clara Valley Medical Center Department of Pediatrics, 6th Annual Perinatal/Neonatal Conference, November 3, 2011, San Jose CA: "Cross-Talk & Developmental Programs – A Key to the Potential Role of Stem Cell Biology in Perinatal Practice".

Lecturer, *Days of Molecular Medicine 2011* co-sponsored by *Science Translational Medicine* (American Association for the Advancement of Science [AAAS] & the Karolinska Institute, "Re-Engineering Regenerative Medicine", November 11, 2011, Hong Kong, China: "Cross-talk & developmental programs in stem cell biology – a key to translational neuroscience"

Lecturer, National Human Genome Research Institute & National Center for Translation & Therapeutics, NIH, November 15, 2011, Rockville, MD: "Cross-talk & developmental programs in stem cell biology – a key to translational neuroscience."

Chairman, Session on Clinical Trials for Chronic Stroke, "3rd Stem Cell Therapies as an Emerging Paradigm for Stroke (STEPS)" workshop on Enhancing the Development of Clinical Trials for Cell-Based Therapies in Stroke, December 3, 2011, Washington, DC.

Panelist, 6th Annual Scientific Symposium Stem Cell Meeting on the Mesa, November 30, 2011, La Jolla, CA.

Panelist, Session on "Confronting the translational challenge – collaborative models to advance early-stage regenerative medicine programs", 1st Annual Investor & Partnering Forum, Alliance for Regenerative Medicine (ARM), December 1, 2011, La Jolla, CA.

Speaker, Winter Conference on Brain Research, Panel on "Regulation & Function of Adult Neurogenesis". January 23, 2012, Snowbird, Utah: "Mapping the lineage relationships of glioblastoma suggests a stem cell origin influenced by non-autonomous factors & a *neurogenic-to-gliogenic* switch".

Plenary Session Speaker & Poster Session Moderator, 64th American Academy of Neurology Annual Meeting, Integrated Neuroscience Session: Stem Cells, April 25, 2012, New Orleans, LA: "Stem Cells for Neurological Therapeutics"

Panelist, National Institute of Mental Health Workshop on Human Induced Pluripotent Stem Cells for Neuropsychiatric Diseases, Panel on Characterization, April 23, 2012, Washington DC.

Speaker & Session Chairman, 19th Annual Meeting of the American Society for Neural Therapy & Repair, April 28, 2012, Clearwater FL: "Neural stem cells, acting through multiple mechanisms, extensively prolong life & preserve function in a mouse model of ALS: meta-analysis of consortium-wide studies"

Expert's Lecture, 7th International Symposium on Neuroprotection & Neurorepair, May 4, 2012, Pottsdam, Germany: "What Embryogenesis Can Teach Us About Regeneration?: Cross-talk & Developmental Programs in Stem Cell Biology – A Key to Translational Neuroscience".

Speaker, Massachusetts General Hospital (Harvard Medical School) Neonatology Research Seminar, May 16, 2012, Boston MA: "Cross-Talk & Developmental Programs – A Key to the Potential Role of Stem Cell Biology in Perinatal Practice".

Sharp Rehabilitation Center Spinal Cord Injury Support Group Research Lecture, May 21, 2012, Kearney Mesa, CA: "Is there a role for stem cell biology in spinal cord injury?"

Speaker/Panelist, NIH Symposium, "Improving Animal Models for Regenerative Medicine", May 23, 2012, Bethesda, MD: "Informative Animal Models for Assessing the Efficacy & Safety of Stem Cells in Neurological Conditions".

Annual John K. Barlow Memorial Lecturer, Massachusetts General Hospital, Dept. of Neurology, Harvard Medical School, May 24, 2012, Boston MA: "Cross-Talk & Developmental Programs in Stem Cell Biology – A Key to Translational Neuroscience".

Keynote Speaker, Joint Neonatal Fellows' from Southern California Conference, June 13, 2012, San Diego CA: "Cross-Talk & Developmental Programs – A Key to the Potential Role of Stem Cell Biology in Perinatal Medicine".

16th annual Peter Tizard Memorial Lecturer, Neonatal Society of the United Kingdom, June 22, 2012, Cathedral Lodge, Canterbury, UK: "Cross-Talk & Developmental Programs – A Key to the Potential Role of Stem Cell Biology in Perinatal Medicine".

Invited guest, 4th Israeli Presidential Conference: "*Facing Tomorrow*", under the auspices of the President of the State of Israel, Mr. Shimon Peres, June 19-21, 2012, Jerusalem.

Lecturer, 2012 Cold Spring Harbor Labs Summer Course on "Brain Tumors", July 20, 2012, Cold Spring Harbor Labs, Banbury Campus, NY: "The role of stem cell biology in the genesis & treatment of neoplasms of the CNS: What Embryogenesis Can Teach Us About Oncogenesis"

Speaker, Hunter's Hope Foundation 5th Annual Workshop on Krabbe Disease, July 31, 2012, Tamarack Lodge, Ellicottville, NY: "Fate of donor cells & impact on the brains of children transplanted for Krabbe Disease".

Keynote Speaker, San Diego Biotechnology Network, August 21, 2012, La Jolla CA: "Overview of stem cell-based therapeutic approaches

Speaker, 1st International Conference on Stem Cells, September 10, 2012, Chania, Crete, Greece: "Cross-talk & developmental programs – a key to translational stem cell biology".

Panelist, Stem Cell Awareness Day Panel on the state of clinical trials in the stem cell field, October 3, 2012, San Diego.

The Stem Cell Awareness Day Speaker, Loma Linda University, Integrated Biomedical Sciences Seminar Series & Inland Empire Stem Cell Consortium, July 20, 2012, Loma Linda, CA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Chairman & Speaker, 38th Annual La Jolla Immunology Conference, Session on the "Immunobiology of stem cells", La Institute for Allergy & Immunology, October 9, 2012, La Jolla, CA: "The stem cell's love-hate relationship with inflammation".

Speaker, Ulsan National Institute of Science & Technology (UNIST) & Max Planck Institute for Molecular Biomedicine, UNIST 2nd International Symposium on Reprogramming & Stem Cells, October 19, 2012, Busan, South Korea: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Visiting Faculty Lecturer, "Cerebral Palsy: Review & Update 2012", Boston Children's Hospital & Harvard Medical School October 23, 2012, Boston MA: "The promise of stem cell therapy".

Keynote Speaker, 18th Annual Vision Science Conference, UCLA Jules Stein Eye Institute, October 27, 2012, Lake Arrowhead, CA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Plenary Speaker & Symposium Speaker, International Society of Neuroimmunology (ISNI), 11th International Congress of Neuroimmunology; Symposium on Inflammation in Neurodegenerative Disorders, November 6, 2012, Boston, MA: "The Two Faces of Inflammation with regard to Stem Cell Action in Neurological Disease"; Plenary session on Stem Cells, November 8, 2012, Boston, MA: "Can transplanted stem cells cause cancer?"

Plenary Speaker, 36th Annual Meeting of the Mexican Academy of Neurology, Coral Beach, Cancun, Mexico. November 9, 2012: "Stem Cells for Neurological Therapeutics – Part 1 (in vivo uses)"; November 10, 2012: "Stem Cells for Neurological Therapeutics – Part 2 (drug discovery)".

Panelist, Global Ataxia-Telengiectasia Neuroscience & Drug Discovery Forum, November 14, 2012, Washington DC, Stem Cell Therapies & Bone Marrow Transplantation.

Speaker/Panelist, 2012 8th Annual World Stem Cell Summit, West Palm Beach, Florida: *Research Session: Stem Cells for Modeling Neurological Disorders, December 4, 2012*: "Stem cells as 'reporter cells' – both *in vitro* & *in vivo* – for neurological disorders".

Translation/Regulatory Session: Global Survey of Cell-Based Therapies, December 5, 2012: "Policing the use of cell-based therapies world-wide".

Speaker, University of Miami, The Dept. of Neuroscience & The Miami Project to Cure Paralysis, December 6, 2012, Miami, FL: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Speaker, Grand Rounds, Rady Children's Hospital of San Diego, January 4, 2013, San Diego, CA: "A tour of what stem cell biology might offer to pediatric neurological disorders".

Panelist, 2013 Children's Neurobiological Solutions Workshop, January 11-13, 2013, San Diego, CA: "The Best Next Steps: Setting a Path for Advancing Pediatric Neurological Research".

Faculty/Lecturer/Advisory Board, NIH-sponsored advanced course *Frontiers in Stem Cells in Cancer* course at Ponce School of Medicine & Health Sciences (NIH Diversity Research Education Grant) for promising physician-scientists & other scientists from predominately underrepresented communities in frontier technologies emerging regarding pluripotent stem cells for clinically relevant discoveries in cancer, February 3-8, 2013, Puerto Rico. Lecture, February 6, 2013: "Cross talk in stem cell biology and developmental programs".

Panelist, 38th Preuss Foundation Seminar, "Harnessing the Potential of Next Generation Molecular Diagnostics to Guide Improved Personalized Treatment for Brain Cancer Patients", February 22, 2013, La Jolla, California: "Brain tumor models & molecular diagnostics – how do they help us guide personalized care?: Stem Cell Models"

Guest lecturer, Brazil Conference 2013, April 1-3, 2013, Rio De Janeiro and Sao Paulo, Brazil: "Stem Cell Advances: Use of stem cells in perinatal anoxia"

- •Instituto D'Or, April 1, Rio De Janeiro
- •Hospital and Maternidade of Sao Luiz-Rede D'Or, April 2, Sao Paulo
- •Hospital das Clinicas, April 3, Sao Paulo
- •Escola Paulista de Medicina (UNIFESP-EPM), Dept. of Obstetrics & Gynecology, of the Medical School of the University of Sao Paulo, April 3, Sao Paulo

Speaker, Annual Meeting of the National Tay-Sachs & Allied Diseases Foundation, April 5, 2013, San Diego CA: "Update on the use of stem cells in Tay-Sachs, Canavan's, & other neurodegenerative diseases of childhood".

Seminar Speaker, Tulane University Neuroscience Department & Stem Cell Center, April 18, 2013, New Orleans, LA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Plenary Speaker, 2013 19th Annual Meeting of the International Society for Cellular Therapy, Session on Commerical Progress in Regenerative Medicine, April 24, 2013, Auckland, New Zealand: "The rationale use of cell-based therapies – viewpoint from a scientist who advises regulatory agencies".

Platform speaker, 20th Annual Meeting of the American Society for Neural Therapeutics & Repair (ASNTR), April 26, 2013, Clearwater Beach, FL: "A 'detoxified' inflammatory chemokine can be used to direct therapeutic stem cell homing

Speaker, 10th Stem Cell Summit, "Stem Cell Summit-2013", Session on "New Paradigms for Cell Therapy", April 29, 2013, Boston, MA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology"

Special Guest Lecturer, ALS Canada Research Forum, ALS Society of Canada, May 6, 2013, Markham, Ontario, Canada: "Multimodal actions of neural stem cells in a mouse model of ALS".

Symposium speaker, University of California-San Diego, "Cell therapy for ALS - what should we use as minimum standards for initiation of clinical trials?", May 6, 2013, La Jolla CA: "Multimodal actions of neural stem cells in a mouse model of ALS".

Scientific symposium speaker, 16 Annual Meeting of the American Society of Gene & Cell Therapy (ASGCT), Symposium on "Challenges and Success of Gene Therapy Product Approval", May 15, 2013, Salt Lake City, UT: "The rational use of cell-based therapies – viewpoint from a scientist who advises regulatory agencies".

Keynote Speaker, World Biotechnology Congress 2013, June 4, 2013 Boston, USA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology"

Non-Cardiac Topic-of-the-Year Speaker, 10th International Symposium on Stem Cell Therapy & Cardiovascular Innovation, June 7, 2013. Madrid, Spain: "Stem cells & spinal cord repair".

Special Seminar Speaker, Yale School of Medicine, Department of Pediatrics, Section of Neurology, July 22, 2013, New Haven, Connecticut: "Cross-talk and developmental programs – a key to translational stem cell biology"

Speaker/Panelist/Delegate, Translational Stem Cell Consortium, Centre for the Advancement of Sustainable Medical Innovation (CASMI), July 30, 2013, Paris, France: "Standards: Recommended Cellular Standards from Bench to Bedside; The rational use of cell-based therapies".

Speaker, 12th International Symposium on Neural Transplantation (INTR), September 6, 2013, Cardiff, Wales, UK: "Midkine: a newly-recognized endogenously-produced cytokine that, through an autocrine mechanism, is pivotal for neural induction".

Speaker, Perelman School of Medicine, University of Pennsylvania, Institute for Translational Medicine & Therapeutics Seminar Series, September 13, 2013, Philadelphia, PA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Faculty Speaker, Cell Society's 3rd Annual Clinical Meeting, A Course in Regenerative Medicine, Session on Current Clinical Applications & Trials for Cell Therapies in Neurology, September 19, 2013, Coronado Island, CA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology in Neurological Conditions".

Keynote Speaker, 3rd International Neural Regeneration Symposium & 5th International Spinal Cord Injury Treatments & Trials Symposium, October 11, 2013, Shenyang, China: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Speaker, Stem Cell Meeting on the Mesa & Alliance for Regenerative Medicine (ARM) Partnering Forum, October 15, 2013, La Jolla, CA: "Developmental Candidates for Cell-Based Therapies for Parkinson's Disease".

Speaker, HeadNorth Foundation for Spinal Cord Injury, Scientific Advisory Board Meeting, October 17, 2013, Rancho Santa Fe, CA: "The challenge of chronic spinal cord injury".

Speaker, Cell Press, Disease Modeling Symposium, November 22, 2013, Los Angeles CA: "Use of human induced pluripotent stem cells to uncover a novel developmentally-based target of therapeutic lithium in bipolar disease"

Co-Chair, Co-Organizer, Panelist, World Stem Cell Summit, December 3-6, 2013, San Diego CA; Lecture #1 (Dec. 4, 2013): "Devising Standards From Bench-to-Bedside Based on Desired Outcomes In Vivo -- The Rational Use of Cell-Based Therapies"; Lecture #2 (Dec. 5, 2013): "Use of human induced pluripotent stem cells (hiPSCs) to uncover a novel developmentally-based target of therapeutic lithium in Bipolar Disease".

Speaker, Buck Institute for Research in Aging, January 24, 2014, Novato CA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Speaker, University of California-San Diego & Rady Children's Hospital, Building Bridges for Child Health Pediatric Faculty Research Symposium, Session on "Genomics & Stem Cells", February 20, 2014, San Diego CA: "A prototypical strategy for using 'Disease-in-a-Dish' technology to model complex disorders".

Plenary Speaker, "Frontiers in Science" Symposium at the Annual Meeting of the Association of Medical School Pediatric Department Chairs (AMSPDC), February 28, 2014, San Antonio TX: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Lecturer, National Center for Regenerative Medicine at Case Western Reserve University, March 6, 2014: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Lecturer, Labroots Bioconferencelive, Neuroscience Virtual Summit, March 19, 2014: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Panelist, William Guy Forbeck Research Foundation Focus Meeting, "Extracellular Vesicles (EVs): Promises & Pitfalls", April 12-13, 2014, La Jolla CA.

Speaker, 11th Stem Cell Summit, "Stem Cell Summit-2014", Session on "Advances in Adult & Pluripotent Stem Cells", April 24, 2014, Cambridge, MA: "A prototypical strategy for using 'Disease-in-a-Dish' technology to model complex disorders".

Speaker, UCSF Developmental & Stem Cell Biology Annual Symposium, June 6, 2014, San Francisco, CA: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Lecturer, Nationwide Children's Hospital & Ohio State University School of Medicine, Research Symposium, July 15, 2014, Columbus, OH: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Lecturer, Brain Tumors Course, Cold Spring Harbor Laboratories, Banbury Conference Center, Long Island, NY, August 10, 2014: "Cross-talk & Developmental Programs – A Key to Translational Stem Cell Biology".

Lecturer, Case Western Reserve University, Case Comprehensive Cancer Center & National Center for Regenerative Medicine, Cancer Stem Cell Conference – 2014, August 20, 2014, Cleveland, OH: Is there a role for fundamental developmental stem cell biology in understanding the genesis & treatment of CNS neoplasms?

Lecturer/Panelist, Rejuvenation Biotechnology 2014 – A SENS Research Foundation Conference, August 23, 2014, Santa Clara, CA: *Lecture #1:* "Applying a damage repair paradigm to developing therapies for the diseases of aging"; *Lecture #2:* "Regulating a damage repair approach to cure the diseases of aging."

Lecturer, 68th Annual Meeting of the American Academy of Cerebral Palsy & Developmental Medicine (AACPDM), Instructional Course-13: "Neural Stem Cells as a Potential Therapeutic Approach for Developmental Brain Disorders: What Does the Clinician Need to Know", September 12, 2014, San Diego, CA : "The Challenges Facing the Stem Cell Field in Approaching Cerebral Palsy & Developmental Disorders".

Chairman, Panel on Modeling Human Disease, Stem Cell Meeting on the Mesa, October 9, 2014, La Jolla CA.

Lecturer, 1st Annual Scripps Memorial Hospital Neuro-Restorative Care Conference, November 1, 2014**,** La Jolla, CA: "Stem cells"

Keynote Speaker, Exponential Medicine 2014, Panel on NeuroMedicine, November 11, 2014, Coronado, CA: "The Future of NeuroMedicine (the next 5–10 years)".

Chairman, Satellite Symposium at the 2014 Annual Meeting of the Society for Neuroscience, Christopher Reeve Hot Topics in Stem Cell Biology", November 17, 2014, Washington DC.

Panelist, Future Tense Series, New America, "The Future of Reproduction", November 20, 2014, Washington DC: "Whose business is reproduction?"

Speaker, World Stem Cell Summit 2014, December 5, 2004, San Antonio TX: **(1)** Panel on Neurological Solutions for Chronic Medical Condition: "Chronic injury/degeneration – the "3rd Rail" of Regenerative Medicine"; **(2)** Panel on Stem Cells & Mental Health: "Using a "molecular can-opener" to model complex disease: Probing lithium's targets in bipolar hiPSCs suggests a novel, druggable underlying developmental disorder".

Speaker, CGI/IBC Conference on Commercialization of Cell, Gene, & Immunotherapies, December 12, 2014, San Diego, CA, Chronic Injury/Degeneration – the "3rd Rail" of Regenerative Medicine

Speaker, World CNS Summit 2015, Modeling & Biomarkers, February 19, 2015, Boston MA: "Stem cell-based models".

Speaker, Conference on Fetal Diagnosis, University of California-San Diego, March 10, 2015, San Diego CA: "Disease Modeling via human induced pluripotent stem cells (hiPSCs) in the perinatal period".

Speaker, State of the Art Plenary Session, 2015 Pediatric Academic Societies (PAS) Annual Meeting *"Advanced Molecular Therapies for Single Gene Disorders"*, April 25, 2015, San Diego, CA: "Neurological Diseases & Cell Therapy".

Speaker, 12th Annual Stem Cell Research & Regenerative Medicine Summit, Joint Session: Stem Cell Therapies from Bench to Bedside, April 28, 2015, Boston, MA: "Approaching Neurological Disease in the Future: Stem cells for prediction, early intervention, drug discovery by modeling disease."

Speaker, 2015 Children Tumor Foundation's Neurofibromatosis Conference, Session on "Optimizing Tools", June 7, 2015, Monterey, CA: "Genetic manipulation of stem cells".

Panelist, "Rock Stars of Innovation", CONNECT in San Diego, June 10, 2015, San Diego CA.

Faculty Speaker, Georgia Institute of Technology & Parker H. Petit Institute for Bioengineering & Bioscience course on "The Business of Regenerative Medicine – Cells at Work", Session on Cord Blood & NSC Therapies, July 21, 2015, Atlanta, GA: "The State of the Science: Neural Stem Cells (NSCs)".

Speaker, Session on "Therapeutic Approaches: Advances in Stem Cell Research", *Rejuvenation Biotechnology 2015,* August 20, 2015, San Francisco, CA: "Using stem cells to discover therapeutic pathways, targets, & drugs".
Panelist, Session on "How will regulatory science keep pace with changes in healthcare for age-related disease?" *Rejuvenation Biotechnology 2015,* August 21, 2015, San Francisco, CA

Plenary Speaker, 13th International Symposium on Neural Therapy & Repair, September 20, 2015: "Using Stem Cells to Model Neurological Disease and Advance Personalized Medicine".

Speaker, *Cell Therapy Bioprocessing & Commercialization Conference – 2015*, Session on Clinical Trial Design, Health Economics, & Administration, October 1, 2015, Alexandria, VA: "What type of science justifies a rational clinical trial? – Viewpoint from a Scientist who Advises Regulatory Agencies"

Speaker, The Linda Hall Library Foundation, Symposium on The Science of Longevity, October 3, 2015, Kansas City, MO: "A realistic look at stem cells & their potential"

Plenary Speaker, Federation of European Neurosciences Societies (FENS) Featured Regional Meeting 2015, October 10, 2015, Thesaliniki, Greece: "Cross-talk between stem cells and the neurodegenerative environment; *The State of the Science:* Neurological Disease & Stem Cells".

Panelist, Bipartisan Policy Center, October 20, 2015 & November 16, 2015: "Considerations regarding an FDA fast-track for autologous cell therapies".

Chairman, Session on Neural Stem Cells: Development, Regeneration, & Drug Discovery, *Cells, Sensors, & Systems Symposium*, organized by the Cytometry Development Workshop & San Diego Center for Systems Biology, October 22, 2015, San Diego CA.

Panelist, *Investigators meeting on assessing the feasibility of a Phase 1 study for neural stem cells in hypoxic ischaemic encephalopathy / cerebral palsy,* Cerebral Palsy Alliance, November 8-9, 2015, Great Barrier Reefe, Australia: "Important considerations for cell-based therapies in HIE and CP".

Chairman & speaker, *World Stem Cell Summit*, Session on *Tackling pediatric neurological disorders, autism & brain damage using cell therapies*, December 11, 2015, Atlanta, GA: "A realistic appraisal of cell-based therapies for pediatric neurological disorders" *and* Session on *Spinal cord injury & neurological disorders-clinical pathways*: "The challenge of spinal cord injury to the stem cell field".

Panelist, 2016 Neonatal Stroke Summit, February 16, 2016, Santa Monica CA: "Considerations in the design of a Phase 3 trial for neonatal stroke".

Speaker, Batten's Disease Workshop 2016 – March 30, 2016, Bethesda MD: "A realistic appraisal of cell-based therapies for pediatric neurological disorders".

Speaker, Posthemorrhagic Hydrocephalus Worskhop, Hydrocephalus Asociation and NIH/NINDS, July 25, 2016, Rockville MD: "Stem cells & stroke recovery".

Faculty Speaker, Cold Spring Harbor Laboratories Brain Tumors Course 2016, Session on Normal Development & Disease, Angiogenesis & Cell Death, Big Data, August 6, 2016, Cold Spring Harbor, Long Island, NY: "Is there a role for fundamental developmental stem cell biology in understanding the genesis & treatment of CNS neoplasms".

Speaker, Session on "Regulating New Platforms in Fundamentally New Ways", *Rejuvenation Biotechnology 2016, sponsored by* the Buck Institute for Research on Aging & The SENS Research Foundation, August 17, 2016, Novato, CA: "The view from an academic who serves on regulatory committees".

Speaker, Biotech Boston 2016*,* IBC's 6th Annual Symposium on Cell & Gene Therapy Bioprocessing & Commercialization, Session on Commercialization: *Clinical Trial Design & Development,* October 6, 2016, Boston, MA: "Important considerations when planning to treat a neurologic disease with cell-based therapies".

Speaker, Group of Twelve, November 2, 2016, San Diego, CA: "A realistic look at stem cells & their potential".

Lecturer, Cerebral Palsy Conference 2016, *Cerebral Palsy: How Do We Measure Success?*, Children's Hospital-Boston & Harvard Medical School, November 8, 2016, Boston, MA: "Stem Cell Therapy: The Promise & The Reality".

Speaker, Stem Cell Summit-2017 (6th Stem Cell Product Development & Commercialization & 14th Stem Cell Research & Regenerative Medicine), Panel on Stem Cells for Drug Discovery & Disease Modeling, April 6, 2017, Boston MA: "Using stem cells to model neurological disease & advance personalized medicine".

Chair & Organizer, SENS Research Foundation Symposium on Hot Topics in Child Neurology "*From the Beginning: The Impact of Early Neurological Disease",* 2017 Annual Meeting of the American Society for Neural Therapy & Repair (ASNTR), Clearwater Beach FL, April 28, 2017 .

Discussion Leader, Plenary Session on "State-of-the-Art: Mechanisms of stem cell action", *STEPS 4: 4th in a series of Academia-Industry workshops on Cell Therapies for Stroke – Accelerating the Development of Cell Therapies for Stroke*, May 6, 2017, Washington , DC.

Panelist, Zhuhai Nobel Institute of Biomedicine (NIB), June 27, 2017, Zhuhai, China: "A realistic look at stem cells & their potential"

Grand Rounds Speaker, Department of Neuroscience, University of California-San Diego, July 21, 2017, San Diego CA: "The State of the Science: Neurological Disease & Stem Cells – The End of the Beginning".

Speaker, 3rd Annual Vail Scientific Summit, August 24, 2017, Vail CO: "Detoxifying & harnessing 'inflammo-attraction' to direct therapeutic stem cell migration: Better living through chemistry"

Seminar Speaker, Department of Neurobiology, Hellenic Pasteur Institute, September 26, 2017, Athens, Greece: "State of the Science: Neurological Disease & Stem Cells--The End of the Beginning"

Speaker, 2nd International Conference on Stem Cells, Session on Neuroscience, October 1, 2017, Rhodes, Greece: "Using stem cells to model neurological disease & advance personalized medicine"

Grand Rounds Speaker, Harvard Longwood Psychiatry Program, Harvard Medical School Department of Psychiatry, October 19, 2017, Boston MA: "Using stem cells to model psychiatric and other complex neurologic disorders"

Speaker, Exploring Ethics Forum, The Center for Ethics in Science & Technology, November 1, 2017, San Diego CA: "Are we ready to edit our children's genes?"

Keynote Speaker, 2017 Annual Research Meeting of the Association of Academic Health Centers (AAHC), December 7, 2017, Washington DC: "The State of the science: A realistic look at stem cells & their potential – The End of the Beginning".

Speaker, 5th International Conference on "Stem cells: Therapeutic outlook for nervous disorders", organized by the Committee of Neurological Sciences of the Polish Academy of Sciences", December 9, 2017, Warsaw, Poland: "Using stem cell to model complex neurological disorders".

Grand Rounds Speaker, University of California-San Diego School of Medicine, Department of Psychiatry, March 27, 2017, La Jolla CA: "Using stem cells to model psychiatric and other complex neurologic disorders"

Keynote Speaker, 15th Annual Stem Cell Summit 2018, April 13, 2018, Boston MA: "Using stem cells to model neurological diseases & advance personalized medicine". [Also Panelist on the following 2 panels: "Partnering between industry, academia, & CROs to Advance Research" & "Issues to Resolve for Advancing Regenerative Medicine"].

Speaker/Panelist, cGMP Stem Cell Manufacturing Roundtable, April 20, 2018, La Joll CA: "Newly-released guidelines on regenerative medicine".

Speaker, Past Presidents' Symposium, 25th Annual Meeting of the American Society for Neural Therapy & Repair (ASNTR), "State of the Art – Then & Now", April 27, 2018, Clearwater Beach, FL: "Stem cells, stem cells, stem cells".

Seminar Speaker, Drexel University School of Medicine, May 30, 2018, Philadelphia PA: "Using stem cells to model neurological disease & advance personalized medicine"

Keynote Speaker, International conference on the theme of "Translational Health Science & Technology for Developing Countries", 7th International Conference on the Development of Biomedical Engineering in Vietnam, June 28, 2018, Ho Chi Minh City: "Using stem cells to model complex neurological diseases & advance personalized medicine".

Lecturer, Cold Spring Harbor Laboratory Course on Brain Tumor Biology, August 8, 2018, Hungtington, NY: "Using stem cells to model complex neurological diseases & advance personalized medicine".

Lecturer, Grand Rounds, Peking University, Shenzhen Hospital, Department of Neurology, August 14, 2018, Shenzhen, China: "Novel stem cell-based therapeutic approaches to Parkinson's Disease (PD)".

Lecturer, Tianjin Children's Hospital, August 17, 2018, Tianjin, China: "State of the science: A realistic look at stem cells & their potential for pediatric neurological disorders"

Speaker, Annual Midwest Stem Cell Center Conference, September 14, 2018, Kansas City MO: "Using stem cells to model complex neurological diseases".

Speaker, 16th Annual Discovery on Target (DOT), Track on CNS & Neurodegenerative Targets, Session on "Targeting & Developing Novel CNS Targets", September 25, 2018, Boston MA: "Using stem cells to model neurological disease for drug discovery (& advance personalized medicine)".

Chairman, Moderator, Speaker, Panel on "Using stem cells to study neuropsychiatric disorders", 13th Annual Scientific Symposium, Cell & Gene Meeting on the Mesa, October 5, 2018, La Jolla CA: "Introduction to the use of stem cells for modeling diseases".

Chairman, Organizer, & Speaker, 2019 World Stem Cell Summit & Phacilitate Leaders World, January 23-25, 2019, Miami FL
- Chairman, Session on "The impact of converging technologies for stem cell research & translation", January 23, 2019: "Overview & introduction".
- Speaker, Session on "Neurology & Aging diseases", January 24, 2019: "Modeling complex neurological diseases using stem cells suggest that they should be viewed as 'network-opathies' rather than diseases of neural cells".

Plenary Speaker, SENS Research Foundation & the Forever Healthy Foundation Bi-Annual Conference on "Undoing Aging 2019", March 29, 2019, Berlin, Germany: "Using stem cells to help unravel the molecular mechanisms of some complex neurological diseases of aging".

Chairman, Session on Regenerative Medicine, 22nd Annual Meeting of the American Society for Gene & Cell Therapy, April 29, 2019, Washington DC.

Invited Speaker, 2019 UCSD/Rady Children's Hospital Department of Pediatrics Annual Scientific Retreat, Session on "Clinical Relevance", May 31, 2019, San Diego CA: "Using stem cells to understand the molecular pathophysiology underlying complex neurologic disorders".

Plenary Lecturer, World Federation of Societies for Biological Psychiatry (WFSBP), 14th World Congress of Biological Psychiatry Conference, Neuroscience Discoveries & Translation to Clinical Practice, June 6, 2019, Vancouver BC, Canada: "Stem Cells & their potential for drug discovery for psychiatric disorders".

Panelist, cGMP Roundtable, Syntelon Institute at the annual meeting of the International Society for Stem Cell Research (ISSCR), June 26, 2019, Los Angeles CA: "Barriers to clinical trials in the stem cell field"

Guest Speaker, OHSU Papé Family Pediatric Research Institute Oregon Health & Science University, Portland OR, Sept. 10, 2019:
- Pediatric Bench to Bedside Seminar Series: "Using stem cells to uncover the molecular pathophysiological mechanisms underlying complex neurological disorders".
- Neonatology Fellows Lecture Series: "Stem Cell Biology for the Neonatologist – with an emphasis on the nervous system"
- MD-PhD student series: "Why receive both medical and graduate training; isn't one enough?"

Panelist, RegMedNet, "Business of regenerative medicine III: an expert panel discussion", September 5, 2019, Washington DC. https://event.on24.com/wcc/r/2040795/308F372B98336C9D6579ADFECF93E80F?mode=login&email=esnyder@sbp.edu

Plenary Speaker, SENS Research Foundation Symposium on Aging Research, Novato, CA, September 27, 2019: "Using stem cells to understand the molecular pathophysiology underlying complex neurologic disorders, including those of the aging brain".

Speaker, 3rd International Conference on Stem Cells, Chania, Crete, Greece, October 7, 2019: "Using stem cells to uncover the molecular pathophysiological mechanisms underlying complex neurological disorders".

Speaker & Moderator, 10th Anniversary of the Hydrocephalus Association Driving Common Pathways Workshop "Extending Insights from Post-hemorrhagic Hydrocephalus", St. Louis MO, November 5, 2019: "The Challenges of Personalized/Precision Medicine & Biobanking: Constructing an Unbiased Resource & Molecular Database for PHH".

Speaker & Co-Chair National Institutes of Health (NIH)/National Institute of Drug Abuse (NIDA) Course on the Frontiers in Addiction Research & Pregnancy, San Diego State University San Diego, CA, January14, 2020: "Using stem cells to model the pathogenesis of complex, polygenic neuropsychiatric disorders".

Speaker, Fleet's Science Center " 'Suds & Science' Spirited Evening of Scientific Discussion", San Diego, CA, February 10, 2020: "Not your grandfather's stem cells: what is the latest in the world of stem cells & why are Californians on the cutting-edge"?

Speaker, Fleet's Science Center " 'Suds & Science' Spirited VIRTUAL Evening of Scientific Discussion", San Diego CA, May 10, 2020: "San Diego's Amazing Race to Combat COVID-19"

Panelist, BVS' San Diego's Multi-faceted Attack Against the COVID-19 Pandemic Virtual Community Event, San Diego CA, June 17, 2020

Panelist, American Parkinson's Disease Association outreach program, "Dr. Gilbert Hosts…", July 13, 2020 (webcast to audience of 800), "Dr. Gilbert Hosts Dr. Evan Snyder: Stem cells & Parkinson's Disease".

Speaker, 2020 Pediatric Academic Society, Session on Neonatal Neurology: Basic and Translational, July 28, 2020 (virtual): "Regenerative Medicine's 1st biomarker for predicting responsiveness to stem cell therapy based on mechanism-of-action: Evidence from perinatal cerebral hypoxic-ischemic injury & proposed patient stratification for a clinical trial"

Speaker, *Ending Age-Related Diseases 2020* conference, August 21, 2020 (virtual): "Using stem cells & machine learning to model & diagnose complex neurological disorders & the aging brain."

Speaker, Virtual 6th International Conference of In Utero Transplantation & Gene Therapy, the International Fetal Transplantation & Immunology Society, Wake Forest, NC October 2, 2020 (virtual): "Might the in utero administration of neural stem cells play a role in the amelioration of neurological diseases & injuries?"

Co-organizer & Speaker, Symposium on "Cognitive-Behavioral Neurology: The Molecular & Cellular Basis of Developmental Cognitive & Behavioral Disorders", 2020 Joint Meeting of the International Child Neurology Congress & Child Neurology Society, October 21, 2020 (virtual): "Psychiatric disorders as developmental neural "network'opathies": insights from using stem cells to model the molecular basis of complex polygenic disorders.

Speaker, Colloquium in Molecular Biology, San Diego State University, February 11, 2021 (virtual): "Psychiatric disorders as developmental neural "network'opathies": insights from using stem cells to model the molecular basis of complex polygenic disorders".

Speaker, 13th Annual Meeting of the International Association of Neurorestoratology, Session on Neurorestoratology & Neuroinflammation, Warsaw, Poland (Virtual), May 27, 2021: "Detoxifying & harnessing "inflammo-attraction" to direct therapeutic stem cell migration".

Keynote Speaker, 7th Annual Wake Forest Institute for Regenerative Medicine (WFIRM) Regenerative Medicine Essential (RME) course & 2021 World Stem Cell Summit, Virtual, June 14, 2021: "Regenerative medicine's 1st biomarker for predicting responsiveness to stem cell therapy based on mechanism-of-action: evidence from cerebral injury".

Speaker, 17th/18th Annual Meeting of the Society for Brain Mapping & Therapeutics (SBMT), Session on Stem Cells, Los Angeles CA (virtual), July 11, 2021: "Regenerative Medicine's 1st biomarker for predicting responsiveness to a stem cell therapy based on its mechanism-of-action can be detected by imaging the brain".

American Lung Association, "Dinner with a Doc" series, November 3, 2021 (virtual): "Using hiPSC-derived lung organoids to understand and screen drugs against COVID-19"

Speaker, Osher Institute Lecture series, San Diego State University, November 19, 2021, San Diego CA: "The promise of stem cells".

Moderator, NIH/National Human Genome Research Institute (NHGRI) workshop on the ethical, legal, & social implications (ELSI) of the creation & use of induced pluripotent stem cell (iPSC) lines, December 1, 2021 (virtual).

Speaker, Del Mar Foundation, January 11, 2022, Del Mar CA: "State of the art in stem cell biology"

Speaker, *Drug Discovery News (DDN)* international webinar, March 30, 2022: "Drugs for directing the migration of therapeutic stem cells".

Lecturer, Cold Spring Harbor Laboratory Course on "Mechanisms of Neural Differentiation & Brain tumors", August 13, 2022, Banbury Conference Center, Cold Spring Harbor, NY: "Modeling oncogenesis and its pathophysiological impact".

Keynote Speaker, Coriell's 50th Anniversary, September 21, 2022, Camden New Jersey: "The future of personalize/precision medicine using hiPSCs"

Keynote Speaker, 8th International Conference in Vietnam on the development of biomedical engineering; Healthcare technology for Smart City in low and middle income countries, Ho Chi Minh City, Vietnam, December 28, 2022: "Using Stem Cells to Understand the Molecular Pathophysiology Underlying Complex Neurologic Disorders".

The 2023 Fred Battaglia State of the Art Lecture for Neonatology-Perinatal Biology, *Western Society of Pediatric Research (WSPR)*, January 20, 2023, Carmel CA: "Mechanistic underpinnings for a clinical trial testing the neuroprotective efficacy of human neural stem cells in perinatal asphyxia".

Speaker, SENS Research Foundation, Buck Institute, March 28, 2023, Novato CA (via zoom): "Viewing cognitive disorders as neural 'network'opathies' – a cell-based approach"

Speaker, The HEALinc Future Health Innovation Summit, April 19, 2023, Atlantis Resort, PI, Bahamas, "Is there a common neural network signature to cognitive disorders that is druggable?"

Speaker, Panel on "30 years of Developing and Translating Neural Therapy for Repair", American Society for Neural Therapy & Repair (ASNTR) 30th Anniversary Celebration, April 28, 2023, Clearwater Beach FL: "Putting it all together: A clinical trial exploiting the neuroprotective actions of neural stem cells in perinatal cerebral injury".

Public Lecture, 2023 World Stem Cell Summit, June 5, 2023, Winston-Salem, NC: "Should adult diseases be treated in infancy, or even prenatally?"

Keynote Speaker, 2023 World Stem Cell Summit, June 8, 2023, Wake Forest, Winston-Salem, NC: "Neurobiology Strategies & State-of-the Art: Mechanistic underpinnings for a clinical trial testing the neuroprotective efficacy of human neural stem cells in perinatal asphyxia".

Lecturer, 2023 World Stem Cell Summit, June 9, 2023, Winston-Salem, NC: "Is there a common neural network signature to cognitive disorders which is druggable?"

Speaker, Ending Aging Forum 2023, Virtual, September 22, 2023: "Is there a common neural network signature to cognitive disorders that is druggable? A stem cell-based approach".

Guest Keynote Speaker, FDA/CBER Cellular, Tissue, and Gene Therapies Advisory Committee Meeting, Virtual, September 27, 2023: "Some guiding principles when contemplating stem cell-based approaches to neurological disease".

Speaker, STEMCELLS 2023, an International Stem Cell Conference, October 3, 2023, Heraklion, Crete: "Viewing cognitive disorders as neural 'network'opathies' that are druggable – A stem cell-based approach".

Keynote Speaker, Stem Cell Awareness Day, October 12, 2023, San Diego CA: "Using stem cells to help people".

Seminar Speaker, NIH Translational Research in Biomaterials Training Program, Boston University, November 27, 2023, Boston MA: "The multifaceted translational value of stem cell biology: disease "treater" vs. disease "unraveller".

Speaker, University of California-Irvine Neurodegeneration & Neurotherapeutics Collaboratory Symposium, January 18, 2024, Irvine CA: "Viewing cognitive disorders as neural 'network'opathies' that are druggable – A stem cell-based approach".

Keynote Speaker, 10th International Conference in Vietnam on the Development of Biomedical Engineering, Healthcare Evolution towards 5P Medicine in Low- and Middle-Income Countries Ecosystem, July 26, 2024, Phan Thiet City, Vietnam: "Mechanistic underpinnings for a clinical trial testing the neuroprotective efficacy of human neural stem cells in perinatal asphyxia".