

Divya Chander M.D., Ph.D.

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EDUCATION

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|-------------------|---|
| 06/2003 | Doctor of Medicine
University of California San Diego School of Medicine – La Jolla, CA |
| 12/2002 | Doctor of Philosophy, Neurosciences
University of California San Diego/Salk Institute – La Jolla, CA |
| 09/1989 – 06/1993 | Bachelor of Arts, Biology, <i>Magna Cum Laude</i>
Harvard University – Cambridge, MA |

ADDITIONAL TRAINING

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|-------------------|---|
| 07/2004 – 09/2007 | Residency, Department of Anesthesiology & Perioperative Care
University of California, San Francisco – San Francisco, CA |
| 07/2003 – 06/2004 | Internship: Internal Medicine, Surgery, and Pediatrics
Banner Good Samaritan Medical Center – Phoenix, AZ |
| 04/2003 | Aerospace Medicine Clerkship
NASA Johnson Space Center/Wyle Laboratories – Houston, TX |
| 08/2002 | Neurology Sub-internship
Massachusetts General Hospital, Harvard Medical School – Boston, MA |
| 1997 – 1998 | California Space Grant Consortium Internship
La Jolla, CA |
| 06/1994 – 08/1994 | Space Studies Program, Department of Space Life Sciences
International Space University – Strasbourg, France |

CLINICAL PROFESSIONAL EXPERIENCE

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|-------------------|---|
| 07/2018 – present | Visiting Scholar, Department of Medicine (Biomedical Informatics Division), Stanford University School of Medicine – Stanford, CA |
| 06/2018 – present | Chair Neuroscience Track, Singularity University (https://su.org) |
| 01/2018 – present | Staff Anesthesiologist, Alameda Health Systems/Highland Hospital, CA |
| 08/2016 – present | Staff Anesthesiologist, San Mateo Medical Center (Envision Health), CA |
| 03/2017 – 12/2018 | Staff Anesthesiologist, San Jose Regional Medical Center, CA |
| 01/2009 – 06/2017 | Attending Faculty, Department of Anesthesiology, Perioperative & Pain Medicine, Stanford University School of Medicine – Stanford, CA |
| 11/2007 – 12/2008 | Staff Anesthesiologist, Kaiser Hospitals – Oakland, South San Francisco, Santa Clara, CA |

ENTREPRENEURSHIP

2020	Founder, CEO lucidify (teleneuroICU platform)
2020	Co-Founder, CMO Plexxus Inc. (a network/AI solution for telehealth and a global pandemic immune system)
2009 – present	Consulting Expert / Mentor to Singularity University and SU Ventures, startups, investors in Medicine, Med Tech, Neuroscience, and Neuroleadership

LICENSURE

2008	American Board of Anesthesiology Diplomate (43029)
2007	National Provider Identifier (1487850079)
2004	California Medical License (A89863)

CERTIFICATIONS

2018	UCSF Entrepreneurship Center Startup101 Certificate
2018	Advanced Cardiac Life Support (ACLS), Basic Life Support (BLS) – continuous since 2004
2014	Pediatric Advanced Life Support (PALS)
1994	International Space University Space Studies Certificate

PROFESSIONAL SOCIETIES

Active Member	American Society of Anesthesiologists California Society of Anesthesiologists American Medical Association
Past Member	Society for Neuroscience Society for Neuroscience in Anesthesiology and Critical Care International Anesthesia Research Society Association for the Scientific Study of Consciousness California Medical Association, Council on Legislative Affairs San Diego County Medical Society

GRANTS

2015 – 2018	Translational Research and Applied Medicine Award (TRAM), Stanford “Anesthesia and Pharmacogenomics Pilot Initiative.”
2012 – 2014	James S. McDonnell Foundation Collaborative Award in Understanding Human Cognition, “Probing the overlap between sleep and anesthesia to enhance human cognition.”
2009 – 2012	Foundation for Anesthesia Education and Research (FAER) Mentored Research Training Grant in Basic Science (MRTG-BS), “Probing the neural correlates of consciousness using optogenetics.”

IRBs

2017 – present	Protocol: 40895: “Identification of Genetic and Immunologic biomarkers that Characterize EEG Phenotypes Under Sleep and General Anesthesia” (co-PI: D. Chander)
2014 – present	Protocol: 28130: “Correlation of Electroencephalographic Signals with Brain States and Pharmacological Administration During General Anesthesia” (co-PI: D. Chander)

VOLUNTEER WORK

06/2020	Senior Fellow, Atlantic Council, GeoTech Center
04/2020	Director Global Health Pandemic Resilience Task Force, One.Shared World
04/2020	NASA-White House Telehealth Task Force member
09/2010	ROTAPLAST INTERNATIONAL, Nagamangala, India. Delivery of anesthesia and perioperative care to children and adults for cleft lip/palate repairs and burn injuries.

COMMITTEES

Steering Committee	International Consortium for Electroencephalography Training of Anesthesia Providers http://www.icetap.org , Society for Neuroscience in Anesthesiology & Critical Care (2011-17)
Organizing Committee	Arts & Anesthesia, Stanford University School of Medicine (2011-2016)
Advisor	Stanford Student Space Initiative, microgravity hTEE flight (2014)

PROFESSIONAL DEVELOPMENT & COURSEWORK

2018	Startup101, University of California San Francisco (Certificate) San Francisco, CA
2012	Professional Development in Medical and Life Sciences: Management Fundamentals Stanford University, Stanford, CA
2011	Neuroinformatics Course (signal processing techniques in neuroscience) Woods Hole Marine Biological Laboratory, Woods Hole, MA
2010	Science Writing with the New York Times Stanford Continuing Studies, Stanford, CA
1995	Space Architecture Studio Design Course University of Southern California – Los Angeles, CA
1994	Summer Session, Space Life Sciences Group International Space University – Barcelona, Spain

TEACHING EXPERIENCE

2018 – present	Emergency Medicine Resident, Oral and Maxillofacial Surgery Resident, CRNA student Teaching and Supervision, Department Anesthesia, Highland Hospital, Oakland, CA
2009 – 2016	Anesthesia Resident Teaching and Supervision Department Anesthesia, Perioperative and Pain Medicine, Stanford, CA
2011-2016	Department Anesthesia Resident Lecture Series (Stanford University School of Medicine) “Anesthesia for Functional Neurosurgery” “Total IV Anesthesia for Neurosurgery: Advantages and Controversies” “Cranial Nerves & Autonomic Nervous System” “EEG Monitoring in Anesthesia: Lessons from the Clinical Experience” “Intraoperative Management of Intracranial Pressure”

2009 – 2016	Medical Student Teaching and Supervision Stanford University School of Medicine – Stanford, CA
2012 – 2015	Medical Student airway workshop Stanford University School of Medicine – Stanford, CA
10/1993 – 04/1999	Biology Instructor Columbia MCAT Review – San Diego, CA
01/1997 – 03/1997	Teaching Assistant, Mammalian Physiology II University of California San Diego – La Jolla, CA
03/1996 – 06/1996	Teaching Assistant, Basic Medical Neurology University of California San Diego School of Medicine – La Jolla, CA

PEER-REVIEWED PRIMARY PUBLICATIONS & REVIEWS

- Eagleman S*, **Chander D***, Dunn C, Ouellette N, MacIver B (2019) Nonlinear dynamics captures brain states at different levels of consciousness. PLoS One. Oct 30;14(10):e0223921. doi: 10.1371.
(*Co-first authors, contributed equally)
- Panesar S, Cagle Y, **Chander D**, Morey J, Fernandez-Miranda J, Kliot M (2019). Artificial Intelligence and the Future of Surgical Robots. Annals Surgery, 270:223–226. doi: 10.1097
- Chander D**, Garcia PS, MacColl JN, Illing S, Sleight J (2014). Electroencephalographic variation during end maintenance and emergence from general surgical anesthesia. PLoS One.
- Pashaie R*, Anikeeva P*, Lee JH*, Prakash R*, Yizhar O*, Prigge M*, **Chander D***, Richner TJ*, Williams J* (2014). Optogenetic brain interfaces. IEEE Rev Biomed Eng. 7:3-30. doi: 10.1109. (*Authors contributed equally)
- Chander D**, Chichilnisky EJ (2001). Adaptation to temporal contrast in primate and salamander retina. J Neurosci 21(24): 9904-9916.
- Maguire G, Straiker A, **Chander D**, Haamedi SN, Piomelli, D, Stella, N, Lu Q-J (1999). Neural Circuitry and Plasticity in the Adult Vertebrate Inner Retina. IWANN (1): 65-72.

BOOK CHAPTERS

- Chander D** (2020). Anesthesia and Diseases of the Nervous System. In: Manual of Clinical Anesthesiology II (Chu L, Fuller A, eds.), Lippincott Williams & Wilkins, Philadelphia, PA.
- Chander D** (2011). Anesthesia and Diseases of the Nervous System. In: Manual of Clinical Anesthesiology (Chu L, Fuller A, eds.), Lippincott Williams & Wilkins, Philadelphia, PA.
- Chander D**, Gelb AW (2006). Anaesthesia for Neurosurgery. In: Evidence Based Anaesthesia and Intensive Care (Moller A, Pedersen T, eds.), pp. 282-292. Cambridge University Press.

PRESENTATIONS & CONFERENCE PROCEEDINGS

- Chander D***, Eagleman S, Dunn C, Ouellette N, MacIver B (2020) Anesthesia, Consciousness and Complexity. Association for Scientific Study of Consciousness Meeting, Tucson (postponed December).
- Eagleman S*, **Chander D***, Dunn C, Ouellette N, MacIver B (2019) Nonlinear dynamics analyses of EEG signals capture brain states at different levels of consciousness. Society for Neuroscience Annual Meeting, Chicago.

- Chander D** (2017). Non-invasive Brain Monitoring...Is it our Reality? XIII World Congress of Intensive and Critical Care Medicine, Rio de Janeiro, Brazil.
- Chander D** (2016). Anesthesia Genomics and Precision Medicine Initiative. Translational Medicine Research Symposium, Stanford University, Stanford, CA.
- Maheer K, Reynolds C, **Chander D** (2016). Drug Effects on the EEG under General Anesthesia. American Society of Anesthesiologists meeting, Chicago, IL.
- MacIver B, **Chander D** (2016). Chaos analysis provides a more sensitive and accurate measure for loss of consciousness compared to frequency domain measures of EEG signals. International Anesthesia Research Society meeting, San Francisco, CA.
- MacIver B, **Chander D** (2015). Measuring loss and recovery of consciousness ~ chaos analysis of frontal EEG in sleep and anesthesia. BioX Conference, Stanford, CA.
- MacIver B, **Chander D**, Bland B (2015). Chaos analysis of brain transitions at loss and recovery of consciousness. Stanford Neurosciences Institute, Stanford, CA.
- Chander D**, Komorowski M, Gaba D, Jewell S, Cagle Y, Golemis A (2014). Tele-anesthesia Simulation for Martian Analogue Environments. Association of University Anesthesiologists Meeting (AUA), Stanford, CA
- Chander D**, Garcia PS, MacColl JN, Illing S, Sleight JW (2014). EEG Variation During Maintenance and Emergence from General Surgical Anesthesia, Association of University Anesthesiologists Meeting (AUA), Stanford, CA
- Golemis A, Jewell S, Ceraolo T, Komorowski M, Russomano T, Drudi L, **Chander D** (2014). Telesurgery Simulations in Space Analogs: benefits for Space exploration and isolated environments on Earth. European Space Agency Congress (Congrex).
- Chander D**, Lee-Messer C, Whitmer D, Sleight J, Negahbani E, Beenhakker M, Huguenard J, de Lecea L, Deisseroth K (2012). Selective Optogenetic Stimulation of the Reticular Nucleus of the Thalamus as a Tool to Investigate the Role of Spindles in Anesthesia. *J Neurosurg Anesthesiol.* 24(4):487.
- Sleight J, **Chander D**, Sanders R, Garcia P (2012). Variations in EEG Pattern During Emergence From General Anesthesia. *J Neurosurg Anesthesiol.* 24(4):482.
- Chander D** (2002). Temporal Contrast Adaptation in Identified Types of Retinal Ganglion Cells. Doctoral Dissertation, University of California San Diego.
- Chander D**, Chichilnisky EJ (2000). Contrast adaptation: regulation of visual sensitivity in parallel retinal circuits. FASEB Retinal Neurobiology and Visual Processing Conference, CO.
- Chander D**, Chichilnisky EJ (1999). Contrast adaptation and gain changes in salamander and monkey retina. *Soc Neurosci Abstr* 25:1431.
- Alangari A, Catone A, **Chander D**, Glebov A, Marshall M, Nolan M, Phail B, Ruilova A, Thangavelu M (1998). Evolution of a Satellite Service Facility in Earth. In: Proceedings of the Sixth International Conference and Exposition on Engineering, Construction, and Operations in Space (Galloway RG, Lokaj S, eds.), pp 82.
- Chander D**, Vollrath P, Gulman R, Wiskerchen M (1997). The Near Earth Asteroid Prospector: An Innovative Alliance for Opening Space Markets & Doing Cheap Space Science. 44th Annual AAS National Conference, Pasadena, CA.
- Chander D** (1996). The Solar System Cruiser - Interstellar Precursor. In: Engineering, Construction & Operations in Space V (Johnson SW, ed.), pp. 302-310. New York: American Society of Civil Engineers.
- Chander D** (1996). Design of a Multi-generational, Interstellar ship. In: Engineering, Construction & Operations in Space V (Johnson SW, ed.), pp. 302-310. New York: American Society of Civil Engineers.

Chander, D (1993). In-vivo laser photolysis in the design and implementation of a host-transplant model to delimit the primary site of action of the autosomal recessive mutation *reeler*. Undergraduate Honors Thesis, Harvard University.

INVITED LECTURES/PRESENTATIONS

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| 2020 | “Increasing resilience by assuring trust in medicine, credentials, and supply chains” Panelist, Atlantic Council GeoTech Center (June) |
| 2020 | “Can Technology Help Build a Shock-Resistant Planet?” Panelist, Columbia University Earth Institute “Sustain What?” Webcast (June) |
| 2020 | “Human Augmentation, Human Hacking,” Virtual YPO Edge (June) |
| 2020 | “Global Pandemic Resilience,” Virtual CogX 2020 (June) |
| 2020 | “Modulating Consciousness,” Virtual CogX 2020 (June) |
| 2020 | “Mobilizing industry to encourage multi-sector solutions to address emergent global concerns” Panelist, Atlantic Council GeoTech Center (May) |
| 2020 | “Now What? What follows after the lockdown?” Singularity Greece Salon Series (May) |
| 2020 | “Reading & Writing Brains,” ExO World Now Summit (May) |
| 2020 | “Covid-19 and Pandemic Responses,” United Nations Association of the USA Pomona Division (May) |
| 2020 | “Reading & Writing Brains, Opportunities in Neuroscience” ExO World Summit (April) |
| 2020 | “Strategies for Dealing with Covid-19,” United Nations Association of the USA Southern California Division (April) |
| 2020 | Coronavirus 101 - A Pandemic, A Cure, BOMA Covid-19 Virtual Summit (March); https://boma.global/covid-19-summit/ |
| 2020 | Hacking Covid - Everything you wanted to know about the virus, SU Covid-19 Virtual Summit (March); https://su.org/summits/covid-19-virtual-summit/ |
| 2020 | Keynote, Mapping Brains, Consumer Reactions, Proctor & Gamble, (February) |
| 2020 | Keynote, Technologies for Transforming Humans, NextEra Energy, Juno, FL (February) |
| 2020 | Keynote, “The Need for a Human Digital Immune System,” DLD20, Munich (January) |
| 2020 | Singularity Executive Program, Silicon Valley (January) |
| 2020 | Keynote, “Future of Health,” Ernst & Young, Silicon Valley, Tech Interactive (January) |
| 2019 | Singularity Executive Program, Silicon Valley (December) |
| 2019 | “How to Write to a Brain,” Singularity University, Nevis Island (December) |
| 2019 | “Mapping Brains, Mapping Consciousness,” Exponential Medicine Conference, San Diego (November) |
| 2019 | Rewiring Brains and Human Augmentation, Young Professional’s Organization (October) |

- 2019 Keynote, Exponential Technologies Bridging Longevity, Singularity International Summit (A Future by Design), Sydney, Australia (October)
- 2019 Keynote, Masters & Robots, Longevity & Human Health, Warsaw, Poland (October)
- 2019 Singularity Executive Program, Silicon Valley (October)
- 2019 Keynote, 7th International Congress on Health Policy Symposium, Augmented Human – Human Directed Evolution or Hacking Risk? Jerusalem, Israel (September)
- 2019 Keynote, Entrepreneurs Organization – EO Nerve “Rebirth,” “Rewiring Brains, Rewiring Humans, Charleston, SC (September)
- 2019 Keynote, FutureExO Symposium – Longevity and Brain, Los Angeles (September)
- 2019 Longevity Symposium – Cognitive Health and Digital Biology, Singularity Global Summit, San Francisco (August)
- 2019 Exponential Technologies for Connected Health, Closing Keynote for Canadian Medical Association, Toronto, CA (August)
- 2019 Keynote, DBS Bank, Longevity & digital humans – How will extending lifespans impact the financial sector? Singapore
- 2019 Keynote – Consciousness and Mapping Non-Human Intelligence, Novus “First Woman” Summit, in celebration of the Apollo Moon Landing **United Nations** (July)
- 2019 Keynote, Human Acceleration, European Union Intellectual Property Office Innovation Summit; Panel on Ethics and AI, Alicante, Spain (July)
- 2019 Keynote – Bioethics in Tech-Driven Human Reboot, SAP ThinkX Conference, Pennsylvania (July)
- 2019 Singularity Executive Program, Silicon Valley (July)
- 2019 Keynote – Bioethics in AI, CRISPR and Brain-machine Interfaces, SAP ThinkX Conference, Germany (June)
- 2019 Singularity Executive Program, Silicon Valley (June)
- 2019 Keynote, Brain mapping, brain machine interfaces, human augmentation, Tiecon Summit, Silicon Valley (May)
- 2019 Keynote, Understanding Health Innovation through the Lens of Longevity, Exponential Families, Silicon Valley (May)
- 2019 Singularity Executive Program, Silicon Valley (May)
- 2019 XPrize Foundation Ideator/Speaker, Future of Longevity Impact Roadmap, Los Angeles (April)
- 2019 Bioethics Keynote, Youth Stage Moderator, Singularity International Summit, Edmonton, Canada (April)
- 2019 Keynote-Exponential Neuroscience, Gold Mavericks, Young President’s Organization (YPO), Silicon Valley (April)
- 2019 Panelist, Amplifying Human Potential with Augmented Reality, DXLab, San Francisco, (April)

- 2019 Keynote Bioethics, Workshop Leader in Longevity and Business Disruption, Innovation Partnership Program, Singularity/XPrize/Deloitte, Silicon Valley (March)
- 2019 Singularity Executive Program, Silicon Valley (March)
- 2019 Keynote, Interface Health Summit on Leadership and High-Performance Healthcare, Vancouver, Canada (March)
- 2019 Exponential Neuroscience Keynote, Singularity International Summit, Madrid, Spain (February)
- 2019 Keynote, The Executive Network (TEN), Silicon Valley (February)
- 2019 Closing Keynote, European Management Forum, Janssen Pharmaceutica (Johnson & Johnson), Madrid, Spain (January)
- 2019 Singularity Executive Program, Silicon Valley (January)
- 2018 Exponential Neuroscience Keynote, Singularity International Summit, Lima, Peru (December)
- 2018 Exponential Neuroscience Keynote, Singularity International Summit, Bogota, Colombia (November)
- 2018 Exponential Medicine Keynote, Singularity International Summit, Athens, Greece (November)
- 2018 Exponential Neuroscience Keynote, Singularity International Summit, Puerto Vallarta, Mexico (November)
- 2018 “Noninvasive Neuromodulation,” Exponential Medicine Conference, San Diego (November)
- 2018 Keynote, The Executive Network (TEN), Silicon Valley (November)
- 2018 Keynote “Neuroscience of Leadership,” Orrick Law Leadership Forum, San Francisco (November)
- 2018 “Exponential Neuroscience,” Young President’s Organization (YPO), Silicon Valley (October)
- 2018 Keynote, EO (Entrepreneur’s Organization), Silicon Valley (October)
- 2018 Neurotechnology of the Future, XPrize Visioneering Summit, Los Angeles (October)
- 2018 Exponential Medicine Keynote, Singularity International Summit, Cascais, Portugal (October)
- 2018 Neuroscience of Leadership, Banff ATB Financial, Banff, Canada (September)
- 2018 Singularity Executive Program, Silicon Valley (September)
- 2018 Keynote, Royal Bank of Scotland Disrupt 2.0 Conference: Technology for Good, Edinburgh, Scotland (August)
- 2018 Keynote Neuroleadership, Leadership Inside Out Conference, LG, Silicon Valley (August)
- 2018 Abundance 360 Executive Program, Silicon Valley (July)
- 2018 Singularity Executive Program, Silicon Valley (July)
- 2018 “A Theory of Consciousness – an anesthesiologist’s take on brains and information,” L’Echappée Volée, Paris, France (July)
- 2018 “Neuroscience of Exponential Leadership” LG Academy Program for Exponential Leadership, Silicon Valley (June)
- 2018 Keynote, Amplify Conference (AMP) “Innovate, augment, build new brains,” Sydney, Australia (June)
- 2018 “Evolving Neuroscience,” Singularity Executive Program, Silicon Valley (June)
- 2018 “The Augmented Human,” PPS South Africa Summit, Johannesburg (June)

- 2018 “Exponential Revolutions in Healthcare – Africa,” Development Bank of South Africa Exponential Technology & Strategic Programme, Johannesburg (June)
- 2018 “The Augmented Human,” PPS South Africa Summit, Johannesburg (June)
- 2018 “Rewiring Humans from the Inside Out,” Executive Program, SU Toronto (May)
- 2018 “Brains and Machines,” Sao Paolo, Brazil Global Summit (April)
- 2018 Keynote, Women in STEM, U.S. Embassy/State Department Prague, Czech Republic (March)
- 2018 “Augmenting Human Consciousness,” Prague, Czech Republic Global Summit (March)
- 2018 “Future of Medicine,” SU Executive Program (March)
- 2018 “Brain Editing,” SU Executive Program (March)
- 2018 “Hacking the Neural Code, Bionic Brains, and the future of Human Consciousness,” The Executive Network, Mountainview (February)
- 2018 “A Theory of Consciousness – Perspectives of an Anesthesiologist,” TED • NYC (January)
- 2018 “Rewiring the Brain from the Inside Out,” Keynote, Boston Scientific LATAM (January)
- 2017 “Exponential Medicine,” SU Executive Program (December)
- 2017 “Exponential Neurotherapeutics,” SU Executive Program (December)
- 2017 “How Hacking the neural code has brought us closer to bionic brains,” SU Executive Program (December)
- 2017 “Non-invasive Neurological Monitoring, is it Our Reality?” XIII World Congress of Intensive and Critical Care Medicine, Rio de Janeiro, Brazil (November)
- 2017 “Rewiring the Brain from the Inside Out,” Exponential Medicine, Coronado, CA (November)
- 2017 “Evolution of Bionic Brains” Young Presidents’ Organization, SU (October)
- 2017 “Reading and Rewiring the Brain” Singularity University Executive Program (October)
- 2017 “Human Consciousness Workshop,” Klick Labs, Toronto, Canada (October)
- 2017 “How Hacking the neural code has brought us closer to bionic brains,” Toronto, Canada Singularity Global Summit (October)
- 2017 “Exponential Neurotherapeutics,” Milan, Italy Singularity Global Summit (September)
- 2017 “Consciousness & Flow States Workshop” Leadership Insight Out Forum (Argentinian) Custom Program (September)
- 2017 “Hacking the Neural Code, Bionic Brains” SU Executive Program (September)
- 2017 “Medical Transformation and the Future of Africa,” Johannesburg, South Africa Singularity Global Summit (August)
- 2017 “Bionics & the Evolution of Human Consciousness,” Global Summit, San Francisco (August)
- 2017 “The Exponential Transformation of Wellness,” Keynote Address, Deloitte Life Sciences Healthcare Industry Forum (July)
- 2017 “Measuring Consciousness,” Singularity University Global Solutions Program (July)
- 2017 “Wired for Fear and to Ignore Climate Change – the Neural Basis for Behavioral Economics,” Singularity University Global Solutions Program (June)
- 2017 “Reading & Rewiring the Brain, An Introduction to Exponential Neuroscience,” Singularity University Global Solutions Program (June)
- 2017 “How Hacking the Neural Code Has Brought us Closer to Bionic Brains,” Singularity University Executive Program (May)

2017	"The Exponential Transformation of Medicine and Therapeutics," Mumbai, India INK Global Summit (April)
2017	"Exponential Therapeutics in Neuroscience," Eindhoven Deloitte Custom Program (March)
2017	Bayer Pharma and Device Regulation Workshop Panelist (March)
2017	"Exponential Neuroscience" The Executive Network (global) Custom Program (March)
2017	"Hacking the Neural Code, Bionic Brains" SU Executive Program (March)
2017	"EEG Real-Time Signal Capture and Brain Computer Interface Workshop" SU Executive Program (January)
2017	"Rewiring the Brain for Human Therapeutics" SU Executive Program (January)
2016	"EEG Real-Time Signal Capture and Processing Demonstration" SU Executive Program (December)
2016	"Exponential Neural Interface Technologies" SU Executive Program (December)
2016	"Brain Machine Interfaces, Electroceuticals and the Future of Neurotherapeutics," Argentina Mira Al Futuro Conference, Cordoba, Argentina (organized by Argentinian government) (November)
2016	"The Future of Brains," Exponential Medicine Conference, San Diego (October)
2016	"Hacking the Neural Code" SU Executive Program (September)
2016	"Exponentials in Brain Machine Interfaces" Amsterdam Summit (September)
2016	"Brains and Actuators" Global Summit SU (August)
2016	"Reading and Rewiring the Brain – Exponentials in Neuroscience and Neurotherapeutics" Singularity University Global Solutions Program (July)
2016	"Exponentials in Neuroscience and Neurotherapeutics" NBC Universal Media (June)
2016	"Reading and Rewiring the Brain – Exponentials in Neuroscience and Neurotherapeutics" Singularity University (June)
2016	"Reading and Rewiring the Brain – Disruptive Technologies for Neurotherapeutics" Singularity University (May)
2016	"Reading and Rewiring the Brain – Disruptive Technologies for Neurotherapeutics" Singularity University (March)
2016	"Reading and Rewiring the Brain – Disruptive Technologies for Neurotherapeutics" Singularity University (January)
2015	"Reading and Rewiring the Brain" Singularity Executive Program (December)
2015	"Digital Health – Sensors & Wearables in Neuroscience," Singularity University Sci Fi DI Workshop (October)
2015	"Exponentials in Neuromedicine," Exponential Medicine Conference, San Diego (November)
2015	"Defining Consciousness," What's Worth Doing – Now Labs & Enter Magazine Summit, San Francisco (August)
2015	"Digital Health – Wearables & Sensors," Singularity University InAB Workshop (July)
2015	"Reading and Rewiring the Brain – Disruptive Technologies for Neurotherapeutics" Singularity University (July)
2015	"Ask an Expert – Neuroscience" Singularity University YouTube channel (July)

2015	"Neuroscience and Neurotherapeutics" (July)
2015	"Future of Medicine and Healthcare," Singularity University, NASA AMES (May)
2015	"Recent Breakthroughs in Medical Technology," Qiming Chinaimagination Summit, Shanghai, China (April)
2015	"Neuroscience and Neurotherapeutics" Singularity University (January)
2014	"Neurotherapeutics and closed-loop rewiring" Singularity University (July)
2014	"Reading and Rewiring the Brain" Singularity University (February)
2013	"The EEG as a Window into the Unconscious Brain," Department of Anesthesia, Stanford University SOM (December)
2013	"Reading and Rewiring the Brain - Disruptive Technologies for Neurotherapeutics" Singularity University (November)
2013	"Reading and Rewiring the Brain - the Advent of Optogenetic Brain Interfaces," Keynote Luncheon Speaker, American Association of Neurological Surgeons (AANS) Conference, San Francisco (October)
2013	"Neuromedicine Breakthroughs: Technologies to Dissect and Rewire the Brain," Deloitte Conference, Mountain view (August)
2013	"Trajectories to Emergence and the Underlying Neural Circuitry," ACCESS/James S. McDonnell Symposium, Emory University (April)
2012	"Reading and Rewiring the Brain," Singularity University (July)
2012	"The EEG as a Window into the Unconscious Brain," Department of Anesthesia, University of Wisconsin, Madison (November)
2012	"Total Intravenous Anesthetics for Neurosurgery: Advantages and Controversies," Grand Rounds, Department of Neurosurgery, Stanford (March)
2011	"Waking up from Anesthesia - Lessons from the Clinical Experience," Brain Systems and Recovery from Anesthesia Workshop, James S. McDonnell Foundation
2011	"Optogenetics and Brain Read-Out Systems," Singularity University (July)
2011	"Waking up from Anesthesia - Lessons from the Clinical Experience," Brain Systems and Recovery from Anesthesia Workshop, James S. McDonnell Foundation (Emory Conference Center, Atlanta, GA, February)
2010	"Optogenetic Interrogation of Neural Circuits," Singularity University (August)
2005	"The Future of Brains - Human and Artificial," AI and Consciousness panel, Forum 21 Conference, Marseilles (April)
2005	"Future of Medicine," Plenary Session panel, Forum 21 Conference, Marseilles (April)
1996	Co-Chair, Advanced Concepts Session, Fifth International Conference on Space, Albuquerque, NM. (June)

- 1996 “Establishing Solar System Infrastructure for Interstellar Spaceflight – Solar System Cruiser,” Space ’96 Conference, American Institute of Aeronautics and Astronautics and the American Society of Civil Engineers, Albuquerque, NM. (June)
- 1996 “Architectural Design of Multi-generational, Interstellar Ship,” Space ’96 Conference, American Institute of Aeronautics and Astronautics and the American Society of Civil Engineers, Albuquerque, NM. (June)

AWARDS, HONORS, FELLOWSHIPS

- 2009, 2013, 2016 *Semi-Finalist, Astronaut Corps, NASA Johnson Space Center.*
- 2004 *Finalist, Astronaut Corps, NASA Johnson Space Center.*
- 2000 – 2001 *Legler Benbough Research Fellow, Legler Benbough Foundation, Salk Institute.*
- 2000 *Travel Research Award, Foundation for Fighting Blindness, Salk Institute.*
- 1999 – 2000 *Chapman Graduate Research Fellow, Helena Chapman Charitable Trust, Salk Institute.*
- 1997 – 1998 *McDonnell-Pew Graduate Research Fellow, McDonnell-Pew Foundation, University of California San Diego and Salk Institute.*
- 1996-1997 *Teaching Excellence Award, UCSD Department of Biology.*
- 1995 – 1997 *Markey Fellow in Neurosciences, Lucille P. Markey Charitable Trust and UCSD*
- 1994 *Medical Education Research Foundation Grant, UCSD*
- 1994 *International Space University Space Studies Scholarship – Barcelona, Spain.*
- 1993 – 2003 *Medical Scientist Training Program Fellow, National Institute of Health (NIH) and UCSD*
- 1991 *Howard Hughes Medical Institute Internship in Neurosciences, New York University*

ADDITIONAL SKILLS

MATLAB basic programming, Neural Signal Processing

INTERESTS

Dance (Latin, Modern, African, Indian classical), Yoga, Astronomy, Outdoors (hiking, rafting, camping), Photography, Travel, Writing (fiction, non-fiction)

LANGUAGES

Spanish (verbal, written), Hindi (verbal – comprehension only)