David R. Vago, PH.D 💟 🖫 🛅











OBJECTIVE

Accomplished Cognitive Behavioral Neuroscientist and international thought leader in mind-body approaches to mental health and well-being, with a commitment to advancing product innovation, meaningful content, and digital health technologies for real-world health and wellbeing outcomes. I bring over 20 years of experience in mind-body research, clinical trials, and the development of transformative health features and technologies. With leadership roles in non-profits, academia, and industry, I have successfully aligned user-centered care with organizational objectives, ensuring scientific integrity and operational excellence. Passionate about driving social change, I excel in cultivating strategic partnerships, fostering innovation, and leading initiatives that empower individuals and communities while promoting collective well-being.

KEY QUALIFICATIONS

- **Leadership and Team Management:** Proven success directing and mentoring multidisciplinary teams in academic, non-profit, and business settings. Adept at inspiring high performance, aligning teams with strategic goals, and fostering collaborative environments.
- Extensive Research Expertise: Over 20 years of pioneering research in neuroscience, mindfulness, integrative health, and neuropsychiatry, providing a strong foundation for promoting community engagement, health and wellness, and meaningful human experiences.
- Translating Science into Impact: Extensive experience presenting complex scientific data to diverse audiences, including external stakeholders, senior leadership, and public forums. Skilled at enhancing product value and organizational reputation through clear, impactful communication.
- Strategic Vision and Execution: Leadership experience in product and content strategy, developing roadmaps aligned with organizational missions to enhance user engagement and business growth.
- User-Centric Product Development: Proven track record in designing and scaling consumer-facing, content-driven products, incorporating analytics to optimize user acquisition, retention, and satisfaction.
- Content and Curriculum Expertise: Extensive experience developing scalable, science-based mindfulness, meditation, and well-being programs in digital platforms, integrating educational design with measurable health outcomes.
- Cross-Functional Collaboration: Skilled in working with engineering, marketing, and operational teams to deliver integrated solutions that drive strategic alianment and measurable business impact.
- Mindfulness Expertise: Deep understanding of the benefits of meditation and contemplative practices, with a demonstrated ability to design scalable solutions that bridge mindfulness science and consumer applications.

EDUCATION

2002-2005 **University of Utah**

PhD Cognitive & Neural Sciences

Dissertation: Dopaminergic modulation of the hippocampus in memory encoding, consolidation, and retrieval

Advisor: Raymond Kesner, PhD

1999-2002 University of Utah

MS Cognitive & Neural Sciences

Thesis: The role of acetylcholine in contextual learning & memory

Advisor: Gene Wallenstein, PhD; Raymond Kesner, PhD

1993-1997 **University of Rochester**

BA Brain & Cognitive Sciences

POST DOCTORAL	0010 0011	
POST-DOCTORAL TRAINING	2010-2011	The Stuart T. Hauser Research Training Program in Biological and Social Psychiatry. T32 Clinical Research Training Program; Harvard Medical School (Boston, MA) co-directed by Robert McCarley, M.D., Martha Shenton, Ph.D. and Grace Chang, M.D
	2008-2009	Harvard Medical School–Brigham & Women's Hospital (Boston, MA), Department of Psychiatry, Functional Neuroimaging Laboratory, Boston, MA, (David Silbersweig and Emily Stern)
	2009	Functional Magnetic Resonance Imaging visiting fellowship, Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, Boston, MA
	2007-2008	Weill Cornell Medical College (New York, NY), Department of Psychiatry, Functional Neuroimaging Laboratory, (mentors: David Silbersweig and Emily Stern)
	2005-2007	University of Utah (Salt Lake City, UT), Utah Center for Exploring Mind-Body Interactions (UCEMBI), Department of Anesthesiology, Pain Research Center
ACADEMIC APPOINTMENTS	2023-present	Adjunct Faculty/Capstone Advisor, University of Pennsylvania, Applied Positive Psychology Grad Program, Philadelphia, PA
	2022-2023	Associate Professor, Visiting Faculty, University of Virginia, Center for Contemplative Science, Charlottesville, VA
	2020-2022	Research Associate Professor of Psychology, Vanderbilt Brain Institute, Vanderbilt University, Nashville, TN
	2016-2020	Associate Professor of Physical Medicine & Rehabilitation, Osher Center for Integrative Medicine, Vanderbilt University Medical Center, Nashville, TN Associate Professor of Psychiatry & Behavioral Sciences, Vanderbilt University Medical Center, Nashville, TN
	2010-2016	Instructor, Department of Psychiatry, Harvard Medical School, Boston, MA
	2007-2008	Research Associate of Psychology in Psychiatry, Department of Psychiatry, Weill Cornell Medical College, New York, NY
	2005-2007	Adjunct Faculty in Psychology, Department of Psychology, Westminster College, Salt Lake City, UT
	2005-2007	Research Associate , Department of Anesthesiology, Pain Research Center, University of Utah Medical School, Salt Lake City, UT
HOSPITAL/	2017-2022	Core Faculty, Vanderbilt Institute for Infection, Immunology and
INSTITUTE APPOINTMENTS	2016-2022	Inflammation, Vanderbilt University Institute of Imaging Science, Vanderbilt University Medical Center, Nashville, TN Core Neuroscience Training Faculty, Vanderbilt Brain Institute,
	2016-2017	Vanderbilt University, Nashville TN Faculty, Lee Kum Sheung Center for Health & Happiness, Harvard T.H. Chan School of Public Health, Harvard Medical School, Boston, MA
	2010-Present	Research Associate, Department of Psychiatry, Brigham & Women's Hospital, Boston, MA
	2009-Present 2007-2009	Fellow, Mind and Life Institute, Charlottesville, VA Research Associate of Psychology in Psychiatry, Department of Psychiatry, New York Presbyterian Hospital, New York, NY
	2005-2007	Research Associate, Department of Anesthesiology, University of Utah Hospital, Salt Lake City, UT
	1998-1999	Polysomnograph Technologist, Sleep Disorders Institute St. Lukes Roosevelt Hospital, Columbia University, New York, NY

LEADERSHIP POSITIONS 2021-2024 2021-2024 2021-2024 2021-2024 2021-2024 2022-2024 2022-2024 2022-2024 2022-2024 2023-2024 2024-2024 2026-2020 2026-2024 2026-2020 2026-2026-2024 2026-2020 2026-2026-2026-2024 2026-2020 2027-2010 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2023 2028-2011-2024-2021 2029-2029	INDUSTRY (NIGNI BROFIT		
2021-2024 Founding Member, Director of Neuroscience's & Communications, Executive Committee, international Society for Contemplative Research 2020-2024 Research Lead, Roundalass Living, Mental Health, Meditation and Wellbeing, Believue, WA 2016-2020 Research Director, Osher Center for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Medical School Medical School School School School School Medical School Medical School Medical School Medical School School Medic	INDUSTRY/NON-PROFIT	2025-	President, International Society for Contemplative Research
Executive Committee, International Society for Contemplative Research	LEADERSHIP POSITIONS		
Research Lead, Roundalass Living, Mental Health, Meditation and Wellbeing, Bellevue, WA		2021-2024	Executive Committee, International Society for Contemplative
2016-2020 Research Director, Osher Center for Integrative Medicine, Vanderbilt University Medical Center, Osher Collaborative for Integrative Health Senior Research Coordinator/Senior Scientifis, Mind and Life Institute, Boulder, CO ADVISORY BOARD & 2022-Present Scientific Advisor, Human Flourishing Institute Scientific Advisor, Curlo Therapeutics Advisory Board member, Thich Noth't Hanh Center for Mindfulness in Public Health, Harvard Medical School Scientific Advisor, Solidal, Inc. 2020-Present Scientific Advisor, Sadrauru Center for a Conscious Planet Scientific Advisor, MinDING OUR PUTURE: Healthy Aging, Food, and Lifestyle, Harvard I.H. Chan School of Public Health, Harvard Medical School Affiliate da large, Flourishing Academic Network Scientific Advisor, Global Compassion Codition Scientific Advisor and faculty, Unifical Mindfulness American Mindfulness Research Association American Psychological Science American Mindfulness Research Association American Psychological Association American Psychological As		2020-2024	Research Lead, Roundglass Living, Mental Health, Meditation and
ADVISORY BOARD & 2022-Present Scientific Advisor, Human Flourishina Institute Scientific Advisor, Human Flourishina Institute Scientific Advisor, Curio Therapeutics Advisory Board member, Jinich Nohrt Hanh Center for Mindfulness in Public, Health, Harvard Medical School Scientific Advisor, Spatial, Inc. Scientific Advisor, MiNDING OUR FUTURE: Healthy Aging, Food, and Lifestyle, Harvard T.H. Chan School of Public Health, Harvard Medical School Affiliate at large, Flourishing Academic Network Scientific Advisor, MiNDING OUR FUTURE: Healthy Aging, Food, and Lifestyle, Harvard T.H. Chan School of Public Health, Harvard Medical School Affiliate at large, Flourishing Academic Network Scientific Advisor, Blood Compassion Coalition Scientific Advisor, Blood Compassion Coalition Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty (Inc.) Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty (Inc.) Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty (Inc.) Scientific Advisor and faculty (Inc.) Scientific Advisor (Inc.) Scientific Advisor (Inc.) Scient		2016-2020	Research Director, Osher Center for Integrative Medicine,
ADVISORY BOARD & CONSULTANT ROLES 2022-Present CONSULTANT ROLES 2021-2023 2021-2023 2021-2023 2021-2023 2020-Present Conscribing Advisor, Sord member, Thich Nacht Hanh Center for Mindfulness in Public Headth, Harvard Medical School Scientific Advisor, Sordial, Inc. Scientific Advisor, Sordial, Inc. Scientific Advisor, Sordial, Inc. Scientific Advisor, Sordial, Inc. Scientific Advisor, MINDING OUR FUTURE: Healthy Aging, Food, and Lifestyle, Harvard T.H. Chan School of Public Health, Harvard Medical School Affiliate at large, Flourishing Academic Network Scientific Advisor, Global Compassion Coalition Scientific Advisor, Sordial, Compassion Coalition Scientific Advisor, Sordial, Inc. 2020-2021 2020-2021 2020-2021 2020-2021 2020-2021 2021-Present 2018-Present 2018-Pr			
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2021-2023 Scientific Advisor, S.OTERIC. Contemplative Training. Scientific Advisor, Spatial, Inc.	CONSULTANT ROLES		Advisory Board member, Thich Naht Hanh Center for Mindfulness
Scientific Advisor, Spatial, Inc.		0001 0000	
Scientific Advisor, Emergent Phenomenological Research Consortium Scientific Advisor, Sadhguru Center for a Conscious Planet Scientific Advisor, MINDING OUR FUTURE: Healthy Aging, Food, and Lifestyle, Harvard T.H. Chan School of Public Health, Harvard Medical School Affiliate at large, Rourishing Academic Network Scientific Advisor, Global Compassion Coalition Scientific Advisory Board, Chopra Institute Domain Expert, Recruitment Innovation Center, Trial Innovation Network, Cinical & Translational Science Awards Program, Vanderbilt-National Institutes of Health Consulting Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty, Mindwell U, Victoria, Canada PROFESSIONAL 2021-Present International Society for Contemplative Research Association for Psychological Science 2013-Present Association for Psychological Science American Mindfulness Research Association 2016-2023 Academic Consortium for Integrative Medicine and Health 2019-2016 Social & Affective Neuroscience 2008-2019 New York Academy of Sciences Cognitive Neuroscience Cognitive Neuroscie		2021-2023	
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Network, Clinical & Translational Science Awards Program, Vanderbilt-National Institutes of Health Consulting Scientist, Adelia Therapeutics/Cybin Scientific Advisor and faculty, Unified Mindfulness Scientific Advisor and faculty, Windwell U, Victoria, Canada PROFESSIONAL 2021-Present International Society for Contemplative Research		2020-2021	
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			committee, Vanderbilt University Medical Center
& Behavioral Sci, University of Utah			& Behavioral Sci, University of Utah
2002-2003 Cognition & Neural Sciences Area Student Representative, University of Utah	Evtramural	ZUUZ-ZUU3	
Extramural: 2024-Present Chair, Data Safety Monitoring Board, Psilocybin & Affective	EXITATIONAL	2021-Present	Chair Data Safety Monitoring Board Psilocybin & Affective
Function in Chronic Lower Back Pain & Depression, NCCIH, R33AT012317-01		202 4 -11036111	Function in Chronic Lower Back Pain & Depression, NCCIH,
2024-present Reviewer, Faculty Pilot Research Awards, <u>Center for Mindfulness</u> , Brown University		2024-present	Reviewer, Faculty Pilot Research Awards, Center for Mindfulness,

2016-2022	Member, Osher Collaborative Research Working Group, Osher Collaborative for Integrative Medicine
2016-2023	Member, Bravenet Steering Committee, Bravewell Integrative Medicine Research Network
2015-2020	Member, Science of Behavior Change Network, NIH
2014-2016	Reviewer: International Symposium for Contemplative Studies
2015-Present	Founding Member, Mindfulness Research Collaborative (MRC)
2014-2015	Member, Presidential search committee, Mind and Life Institute
2013-2021	Scientific Advisor, American Mindfulness Research Association
2012-2019	Scientific Advisor, Prison Mindfulness Institute
	Consulting Scientist, Effortless Mindfulness Research Center
2009-Present	Reviewer: Mind and Life Summer Research Institute Fellowship, Mind and Life Institute Research Fellow, Mind and Life Institute

Ad-hoc Reviewer

American Journal of Psychiatry, Annals of Behavioral Medicine, Annals of the New York Academy of Sciences, BMC Psychiatry, BMC Psychology, Clinical Psychology: Science and Practice, Clinical Psychology Review, Complementary and Alternative Medicine, Brain Sciences, Cognition & Emotion, Cognitive Therapy and Research, Comprehensive Psychiatry, Consciousness & Cognition, Current Opinions in Psychology, Educational Psychology Review, Emotion, Frontiers in Behavioral Neuroscience, Frontiers in Consciousness Research, Frontiers in Human Neuroscience, Frontiers in Psychiatry, Frontiers in Psychology, Hippocampus, Human Brain Mapping, International Journal of Consciousness Studies, Mindfulness, Journal of Alternative and Complementary Medicine, Journal of Pain, Journal of Psychology, Journal of Science and Healing, Mindfulness, Neuroimage, Neuroimage Clinical, Neuropsychologia, Neuroscience and Biobehavioral Reviews, Organizational Behavior and Human Decision Processes, Perspectives on Psychological Science, PLOS ONE, Psychological Review, Psychological Science, Psychology & Neuroscience, Psychoneuroendocrinology, Review of General Psychology, Sage, Social, Cognitive, and Affective Neuroscience, Scientific Reports

Grant Reviewer

2024-Present

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2022-Present	National Science Foundation
2020-Present	Mind and Life Peace Grant Awards
2018 - Present	NIH, National Center for Complementary & Integrative Health (NCCIH)
	i. Loan Repayment Program (April, 2018)
	ii. Fellowships, Career Awards, and Institutional Training Grants (March, 2019)
2015	Wellcome Trust
	Samuel B. Hanser Visionary Award (Kripalu Yoga Center)
2014	John Templeton Foundation
	San Francisco State University, small grant program for research and creative activities
	Mitacs-Elevate Canadian Fellowship
2007-Present	Mind & Life Francisco J. Varela Grant program

Brown University, Center for Mindfulness Faculty Pilot Grant Award Program

Textbook Reviewer

2012	The Mind's Machine, 1st ed., Sinauer
2002-9	Biological Psychology, 2 nd , 3 rd , 4 th ed., 6 th ed., and Instructor's Manual, Breedlove, Watson, & Rosenzweig,
	Sinauer
2009	The Mind's Machine, 1st ed., Sinauer
2002,4	Cognition: The thinking animal, 1st edl, 2nd ed., Willingham, Prentice Hall
2002	Cognitive Psychology: Mind and Brain, Smith & Kosslyn, Prentice Hall, 2003

Editorial appointments

2012-Present	Review Editor , Frontiers in Psychoanalysis & Neuropsychoanalysis, Frontiers in Psychology
2014-Present	Review Editor , Frontiers in Auditory Cognitive Neuroscience, Frontiers in Neuroscience
	Review Editor, Cognition, Frontiers in Psychology
2017-2019	Guest Editor, Current Opinion in Psychology, The Science of Mindfulness

on in the Organization of Scholarly Meetings
Planning committee member , Mind and Life Summer Research Institute: Scientific and Contemplative Perspectives on Attention and Emotion Regulation. Garrison Institute, Garrison, NY; Mind and Life Institute
Planning committee member, Mind and Life, The Self, Mental Causation and Free Will: Exchanges
Between Science and Buddhism on the Human Mind, with HH Dalai Lama. Berlin, Germany; Mind and Life
Institute
Planning committee member and scientific advisor, Mind and Life 18, Attention, Memory and the Mind: A
Synergy of Psychological, Neuroscientific and Contemplative Perspectives with HH Dalai Lama. Dharamsala, India: Mind and Life Institute
Planning committee member, Mind and Life Summer Research Institute: Scientific and Contemplative
Perspectives on Self. Garrison Institute. Garrison, NY; Mind and Life Institute
Planning committee member and scientific advisor, Mind and Life 19, Educating World Citizens for the 21st
Century: Educators, Scientists, and Contemplatives Dialogue on Cultivating a Healthy Mind, Brain and
Heart with HH Dalai Lama. Constitution Hall, Washington DC; Mind and Life Institute
Planning committee member, Mind and Life Summer Research Institute: Education, Developmental
Neuroscience and Contemplative Practices: Questions, Challenges, and Opportunities. Garrison Institute,
Garrison, NY; Mind and Life Institute
Planning committee member and co-organizer, Advances in Meditation Research. New York, NY; NY
Academy of Sciences,
Planning committee member and co-organizer, Advances in Meditation Research. Memorial Sloan
Kettering, New York, NY; NY Academy of Sciences
Co-organizer , Theoretical and Methodological Challenges in Mindfulness Research: Setting an Agenda for a Programmatic Research Initiative to Study the Neurobiological, Clinical and Real-life Changes Associated with Mindfulness-based Contemplative Practice. Harvard Radcliffe Institute Exploratory Seminar, Cambridge, MA; Harvard Radcliffe Institute
Co-organizer, Mind and Life Think Tank: Embodiment, Contemplative Practice, and Equality: Developing a
programmatic and research agenda for reducing in-group bias through embodied inquiry and
contemplative practice. Nashville, TN; Osher Center for Integrative Medicine
Program Planning committee , Mind and Life Think Tank: Mechanisms of Meditation and Consequences for
Clinical Practice, Leiden, Netherlands; Mind and Life Institute
Program Planning Committee , Mind and Life Contemplative Research Conference (CRC), Virtual; Mind and Life Institute
Program Planning Committee , International Society for Contemplative Research (ISCR) Conference, San Diego, 2023; ISCR
Program Planning Committee, International Society for Contemplative Research Conference, Padova,

Special awards or recognition for professional activities

Italy, 2024; ISCR

1999-2005 2000 2002-2004	University of Utah, Department of Psychology—Research Assistantship University of Utah, Department of Psychology—Commendation for Excellence in Research University of Utah—Graduate Research Student Travel Award
2003	University of Utah—Psi Chi Honor Society Award for Excellence in Teaching University of Utah, Department of Psychology—Commendation for Excellence in Teaching
2004	University of Utah, Department of Psychology—Kevin Hawley Memorial Award
2005-2007	Mind & life Summer Research Institute Fellowship
2016 2017, 2020	<u>TransTech 200</u> Annual List of Key Innovators, Class of 2016 Mind & Life Think Tank Award, \$15,000

TEACHING ACTIVITIES

Medical School Courses

2009 – 2011 2013	Functional Neuroimaging for Radiology Residents, Brigham & Women's Hospital, Harvard Medical School Summer Education Program in Psychiatric Neuroimaging, Brigham & Women's Hospital, Harvard Medical School
2015 2016	Mind Brain Behavior – Interfaculty Initiative, Harvard University Mind-Body Medicine – A Harvard Medical School elective course

Residency Program in Psychiatry

Undergraduate/Graduate School Courses

1999	Mind and Nature (PSYCH 3130), University of Utah
2000-2005	Brain and Behavior (PSYCH 3711), University of Utah
2001	Cognition (PSYCH 3120), University of Utah
	Teaching Experience (PSYCH 4910), University of Utah
2001-2004	Research Modes of Learning (PSYCH 3900), University of Utah
2005-2007	Physiological Psychology (PSYC 406), Westminster College
	Physiological Psychology Lab (PSYC 407), Westminster College
2008-2012	Mind Body Medicine, Harvard Medical School
2019-2020	Neuroscience 4961 – Integrative Neuroscience, Vanderbilt University
2017-2020	NURO 9999 – PhD Dissertation Research, Attentional Bias and Mindfulness, Vanderbilt University
2017-2023	Neuroscience 3861 – Undergraduate Research, Contemplative Neuroscience, Vanderbilt University
2017-2023	Neuroscience 3862 – Undergraduate Research, Contemplative Education, Vanderbilt University

Continuing Medical Education

2017-Present "Self-Awareness, Self-Regulation, and Self-Transcendence: How Mindfulness-based Practices

Transform the Brain", Unified Mindfulness Online Course

"The Science of Mindfulness", Osher Center Professional Development in Mindfulness Facilitation course,

Osher Center for Integrative Medicine, Vanderbilt University Medical Center

Mindfulness Teaching & Facilitation

2014-2016 Mindfulness and Compassion Training: Science & Clinical Practice, all-day mandatory training for

Harvard Longwood Residency Program in Psychiatry, Harvard Medical school

2015-Present <u>The Science Behind Meditation</u>, Psychology Today, Expert Blogger

"Neurobiology of Yoga", Yoga teacher training online course, Yogamedicine.com

2017-Present "Meditation and the Brain", 10% Happier Mobile App

"Mapping the Meditative Mind & the Emerging Science of Mindfulness", Nalanda Contemplative

Psychotherapy Course

"Science and Practice of Mindfulness Meditation", Vanderbilt school of Nursing

2018-Present "Future of Meditation Research Online Course", Institute of Noetic Sciences,

"Mindfulness for chronic low back pain" - NIH clinical trial, Vanderbilt University Medical Center

2020-Present Mindfulness and Compassion-based meditation training – <u>private one-on-one instruction</u>

"<u>Cultivating Equanimity</u>" guided meditation, Insight Timer
The Science of Mindfulness and Compassion, Roundglass Living

Other Teaching

2007-2009 Contemplative Education – A Neurodevelopmental Perspective, Mind and Life Research Network

2011-2016 Summer Educational Program in Neuropsychiatric Functional Neuroimaging, Brigham & Women's Hospital,

Harvard Medical School

2021-Present Self-Awareness, Self-Regulation, & Self-Transcendence: Developmental Neuroscience Perspectives. Abiding

Heart Education with Mingyur Rinpoche and Karma Rinchen Drolma.

Neurobiological and Psychosocial Mechanisms of Mindfulness & Compassion, Contemplative Science

Pedagogy, Penn State University

Affective/autonomic neuroscience of healthy attachment and positive human development,

Contemplative Psychotherapy program, Nalanda Institute

RESEARCH SUPERVISION

Ph.D. Dissertation Committee

2014 Condon, P. Cultivating virtue: The effects of mindfulness and compassion-based

meditation on mental states and behavior. Department of Psychology, Northeastern University, Boston, MA

2016 Hadash, Y. Mindfulness, self-referential processing and equanimity: Behavioral

measurements and mechanisms of action., University of Haifa, Israel

Parvathaneni, P. Gray Matter Based Spatial Statistics in Neuroimaging Studies, Vanderbilt University,

Electrical Engineering Graduate Program, Nashville, TN 37203

2016-2021 Gupta, R. The Effect of Mindfulness-Based Cognitive Therapy on P1 Event-Related Potential Markers of

Threat-Related Attentional Bias and Symptoms in Anxiety Populations, Vanderbilt University, Neuroscience

Graduate Program, Nashville, TN, 37203

MDiv Thesis Committee

2015 Parameshwaran, K. Scriptural Studies vs. Experiencing God: My Thoughts on the Art of Practical

Exegesis and Embodied Care of Clinical Patients and How it can Complement Scriptural Studies, Harvard

Divinity School, Harvard University

Medical Residents

2010-2011 David Fischer, Resident Physician, Brigham & Women's Hospital, Harvard Medical School, Research Fellow,

Berenson-Allen Center for Noninvasive Brain Stimulation

2012-2014 Jessica Harder, Instructor in behavioral neurology and neuropsychiatry, Brigham & Women's Hospital,

Harvard Medical School

Research Student Trainees

2001-2005 Nicole Byron, Cecilia Equiquren, Brandon Martin, Adam Bevan, Michael Ryan Hunsaker, Danielle

Warthen, Matt Warthen, Brock Kirwan, Anne Walberer

2005-2009 Lahdan Heidarian, Haiwen Chen

2010-2016 Elisa Nabel, Sara Riley, Erica Greenberg, Courtney Haley, Benjamin Fuchs, Eva Catenaccio, Laurel Morris,

Emily Epstein, Rachel Cohn, Lorene Leung, Daniel Millstein, Andrea Poile, Emily Feeney

2016-2018 Kendra Osborne, Joy Grabenstein, Jessica Banasiak, Jean Henry, Kate Bradley 2018-2020 Rithik Sudhini, Ruisi Zhong, Sara Kirschner, Jeremiah Cox, Keegan Dymoke

2020-present Shamel Basaria, Emily DeSantis, Isabel Rodriguez, Rishi Ramaratnam, Kimiya Shahamat

2020-present Debra Dixon, M.D., Vanderbilt University Medical Center 2023-present Jason Godley, UPenn Master of Applied Positive Psychology

Post-doctoral Fellows

2017 – 2018 Landrew Sevel, Ph.D. Poppy Schoenberg, Ph.D.

2018 – 2019 Michael Finn, Ph.D.

RESEARCH PROGRAM

Ongoing Research Support

R01 (R01 AT011456-02) Donahue (PI); Claassen (co-PI) 04/01/2021-03/31/2026

NIH

Quantitation of Glymphatic Functioning in Sleep and Meditative States

This study aims to investigate 1) perivascular rhythms and glymphatic flow during different states of reduced wakefulness 2) and during states of meditation.

Role: Consultant

R01 (R01 AT011002-02) Webb (PI) 04/01/2021-03/31/2026

NIH

Mechanisms and Predictors of Change in App-Based Mindfulness Training for Adolescents

This study aims to investigate self-regulatory mechanisms and predictors of change in App-based Mindfulness training for adolescents.

Role: Consultant

(R01), NIH/NCCIH (R01AT010598-02) Dusek (PI) 09/01/2020-08/31/2025

Acupuncture in the Emergency Department for Pain Management: A Bravenet Multi-center Feasibility Study.

The U01 mechanism across 4 BraveNet Clinical sites aims to ensure the efficiency of screening, recruitment, and retention procedures across Emergency Department (ED) sites, refine the process for screening eligible pain patients and conducting the trial in multiple EDs, and ensure that recruitment and retention procedures in the pilot trial are replicable across multiple EDs.

Role: Co-Investigator

COMPLETED RESEARCH SUPPORT

R01 (AT009680-01A1) Burns, Bruehl (PI) 12/01/2018-11/31/2023

NCCIH

Evaluating Specific and Non-specific Mechanisms in Two Distinct Complementary Interventions.

Complementary/integrative chronic pain interventions have proliferated, and some approaches have strong support for efficacy in chronic low back pain. The general hypothesis is that treatment-induced changes in non-specific mechanisms will predict outcomes across mindfulness and spinal manipulation therapies. The proposed study will compare the degree to which MT and SMT activate specific and non-specific mechanisms, and the degree to which these mechanisms affect pain-related outcomes.

Role: Co-Investigator

NRSA (F31 AT010299-01)

Gupta (PI), Vago (Sponsor)

2/01/2019-01/31/2022

The Effect of Mindfulness-based Cognitive Therapy on ERP Markers of Attentional Bias in Anxiety.

The proposed research will determine whether mindfulness-based cognitive therapy (MBCT) can modify event-related potential (ERP) markers of attentional bias to threat, and whether modifications are associated with an improvement in symptoms acutely and at 6-months follow-up. The proposed research will thus provide insight into a potential physiological mechanism through which MBCT may target early stages of attentional bias and reduce clinical symptoms of anxiety. Role: Primary sponsor

R01 (AT009539-05)

Victorson, Greco (PIs)

07/15/2017-06/30/2022

NCCIH

Creating and optimizing mindfulness measures to enhance and normalize clinical evaluation (COMMENCE).

Mindfulness has become an increasingly studied health behavior in clinical research trials. A major challenge of mindfulness research has been how to most effectively measure and assess mindfulness using self-reported survey instruments. This study seeks to apply innovative instrument development methods to create a standardized measurement system of mindfulness so we may advance our understanding of important clinical processes and mechanisms of action. Role: Consultant

Mind and Life Institute Vago, Carlson, Jha, Dunne, Segal, Roth, Zeidan (MPIs)

10/01/2020-09/30/2021

Think Tank Award

Establishment of a Contemplative Research Society

This award will support the meeting of a working group to establish the framework for a contemplative research society. Role: MPI

UH2/UH3 (5UH3AT009145-04)

King, Britton, Loucks (PI)

9/01/2015-08/31/2020

NIH

Mindfulness Influences on Self-Regulation: Mental and Physical Health Implications.

This multi-site study focused on modifying and refining mindfulness-based interventions (MBIs) by identifying self-regulatory mechanisms (Coanitive, Emotional, and Self-specifying) through existing and novel data sets in order to predict clinical outcomes and medical adherence. This project offered the opportunity to clarify which self-regulation measures are of areatest clinical use related to MBI and clinical behavior change outcomes. Role: Co-Investigator/Site-PI, 5% FTE

Bravenet. Bravewell Collaborative

Vago (PI)

03/01/2018-02/31/2021

Einstein School of Medicine - Coordinating Center

Targeting Self-Regulatory Mechanisms in Integrative Medicine: A Pilot Multi-Site Pragmatic Trial.

This study will assess the role of a behavioral assay of attention regulation in predicting improvements on patient-reported outcomes. This study also plans to assess the effect of treatment modality (e.g., acupuncture, mind-body medicine group, massage therapy) dosage and its interaction with self-regulatory measures on clinical outcomes. Lastly, the study aims to assess the association self-regulatory behavior and degree to which patients take a proactive role in managing their health and maintaining healthy behavioral changes over time.

Role: Principal Investigator, 2% FTE

Yoga Science Foundation/University of Toronto Vago, Farb (PI) Mindful Yoga for Interoceptive Awareness

2/01/2016-1/31/19

This multi-site 3-arm randomized controlled study tested a mindful yoga intervention vs. power yoga and cardiovascular exercise control in a out-patient population with moderate levels of depression to determine whether the mindfulness component can improve interoception through 1st person, 2nd person, and 3rd person perspectives. Role: Co-Investigator/Site-PI

Mind and Life Institute

Vago, Forbes, Farb, Wilson-Mendenhall (Pls)

09/14/2017-09/16/2017

Think Tank Award

Embodiment, Contemplative Practice, and Equality: Developing a programmatic and research agenda for reducing implicit bias through embodied inquiry and contemplative practice

This award supported the meeting of a working group to investigate implicit bias and associated prejudice with a focus on identifying conditions that mitigate the effects of such bias in social settings. Role: Principal Investigator

IMPACT Foundation/Anon Philanthropic donors Vago (PI)

1/01/2012-12/31/2016

Neurobiological Substrates Underlying Varieties of Restful Experience and Modalities of Meditative Awareness

This study aimed to investigate expert and novice practitioners of mindfulness-based meditation to identify neurobiological substrates of intrinsic brain activity in the context of distinct resting state networks.

Role: Principal Investigator, 5-10% FTE

Harvard Radcliffe Institute

Vago, Stern (Pls)

01/21/2016

Exploratory Seminar Award

Theoretical and Methodological Challenges in Mindfulness Research

This exploratory seminar assembled researchers and scholars from across disciplines for the creation of a comprehensive research initiative that focuses on Contemplative Sciences and investigating the clinical efficacy and basic mechanisms of very specific forms of mental training that involve meditation.

Role: Principal Investigator, 5-10% FTE

1440 Foundation/Mindfulness Connections

Vago (PI)

01/01/2012-6/30/16

/Hope Lab

Health & Stress Evaluation of Young Adults – A Long-term, Opportunistic Follow-Up Assessment of Mindfulness Training in School Children

This study aimed to investigate the long-term effects of exposure to mindfulness training during elementary school, on subsequent health attitudes, resilience to stress, and well-being as adults, and provide data for contemporary curriculum development integrating mindfulness practices and skills development into K-12 education.

Role: Principal Investigator, 5-10% FTE

Starr Foundation

Ahles, Silbersweig (PI)

07/01/2008-06/30/2012

Translational studies of neural mechanisms of chemotherapy induced cognitive changes

The goal of this project is to test regionally and mechanistically specific hypotheses concerning chemotherapy induced cognitive changes, as well as to identify potential biomarkers and strategies for therapeutics.

Role: Co-Investigator, 5-10% FTE

MLI-FJVRF-08-001 Vago (PI)

1/01/2006-12/01/2011

Mind and Life Institute/Francisco J. Varela Grant Award for Contemplative Science Research

The Effects of Mindfulness Meditative Training on Impairments in Affect Regulation Associated with the Experience and Anticipation of Pain in Fibromyalgia Patients.

The goal of this project was to investigate whether mindfulness meditative techniques are able to significantly decrease perceptual and cognitive biases and the dysregulation of affective states (i.e., anxiety, catastrophizing) associated with the experience and anticipation of pain in Fibromyalgia patients.

Role: Principal Investigator

Univ. Utah Magnetic Source Imaging Award Vago (PI)

11/01/2006-11/01/2011

Neural Basis of Cognitive and Emotional Processing in Fibromyalgia.

The goal of this project was to investigate the effects of mindfulness training on attention and emotion regulation processes using a fear-potentiated startle paradigm with Magnetoencephalography (MEG).

Role: Principal Investigator

R21 (AT002209-02)

Nakamura (PI)

08/01/2005-07/31/2010

NCCAM within the Pain Research Center at the University of Utah.

This program facilitated transdisciplinary and translational approaches to investigating mind-body interactions and their relationship to health. The major goal of this project has been to evaluate the cognitive and affective processes associated with mindfulness meditation training in Fibromyalgia patients.

Role: Co-Investigator

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed publications in NCBI-My Bibliography [https://www.ncbi.nlm.nih.gov/myncbi/14lYpsl_VSr5v/bibliography/public/], h-index = 36, >15,000 citations

Articles in peer-reviewed journals:

In Preparation/Under Review

- 1. **Vago, D.R.**, Pan, H., Young, S., Silbersweig, D., Stern, E. Fronto-striatal-limbic and Modality-specific Markers of Clarity in Novice and Advanced Meditators During Open Monitoring and Concentrative Meditative States of Tranquility. *In Preparation*
- 2. Roseen, E., Hurstak, E., Kim, R., Gao, Q. Greco, C.M., **Vago, D.R.**, Saper, R., Kligler, B., McKee, M.D., Dusek, J.A. Nonpharmacologic Back Pain Treatment Use and Associated Patient Reported Outcomes in US-Based Integrative Medicine Clinics. *Under Review*.
- 3. Laird, B., **Vago**, **D.R.**, Yaden, D., Huberty, J. Psychedelic-assisted therapy and Integration support for the treatment of depressive conditions: A scoping review. Under review.
- 4. Keating, B.A., **Vago**, **D.R.**, Garza, M., Han, C., Eisma, J., Hett, K., McKnight, C., Considine, C., Claassen, D.O., Donahue, M.J. Neurofluid circulation changes during mindfulness meditation: Implications for Understanding Health Benefits for Sleep and Meditation. *Under Review*

Published

- Wallenstein, G.V. and Vago, D.R. (2001) Intrahippocampal Scopolamine Impairs Both Acquisition and Consolidation of Contextual Fear Conditioning. Neurobiology of Learning and Memory. 75, 245-252. Epub 2001/04/13. doi: 10.1006/nlme.2001.4005. PubMed PMID: 11300731
- 2. Wallenstein, G.V., **Vago**, **D.R.**, Walberer, A.M. (2002) Time-dependent involvement of PKA/PKC in contextual memory consolidation. Behavioural Brain Research. 133, 159-164. PMID: 12110449
- 3. **Vago, D.R.**, Kesner, R.P. (2007) Cholinergic modulation of Pavlovian fear conditioning in rats: Differential effects of intrahippocampal infusion of mecamylamine and methyllycaconitine. Neurobiology of Learning and Memory. 87, 441-9. doi: 10.1016/j.nlm.2006.11.001. PubMed PMID: 17178240.
- 4. **Vago, D.R.**, Bevan, A., Kesner, R.P. (2007) The role of the direct perforant path input to the dorsal CA1 subregion in memory retention and retrieval. Hippocampus. 17, 977-987. Epub 2007/07/03. https://doi.org/10.1002/hipo.20329
- 5. **Vago, D.R.**, Kesner, R.P. (2008) Disruption of the direct perforant path input to the CA1 subregion of the dorsal hippocampus interferes with spatial working memory and novelty detection. Behavioural Brain Research. 189, 273-83. https://doi.org/10.1016/j.bbr.2008.01.002
- Vago, D. R., Epstein, J., Cattenacio, E. Stern, E. (2011) Identification of Neural Targets for the Treatment of Psychiatric Disorders: The role of functional neuroimaging. Neurosurgery Clinics of North America. 22, 279-305. doi: 10.1016/j.nec.2011.01.003. PubMed PMID: 21435577.
- 7. Min, B-K, Yang, P. S., Bohlke, M., Park, S., **Vago**, **D. R.**, Maher, T. J., Yoo, S-S. (2011) Focused ultrasound modulates the level of cortical neurotransmitters: Feasibility for a functional brain mapping technique. *International Journal of Imaging Systems and Technology*. **21**, 232-240. doi:10.1002/ima.20284
- 8. **Vago**, **D. R.**, Nakamura, Y. (2011) Increased Selective Attention Towards Pain-related Threat in Fibromyalgia: Preliminary Evidence for Effects of Mindfulness Meditation Training. Cognitive Therapy & Research. **35**, 581-594. Mindfulness Meditation Training. Cognitive Therapy & Research. **35**, 581-594. doi:10.1007/s10608-011-9391-x
- Holzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., Ott, U. (2011) How does mindfulness work? Proposing mechanisms of action from a conceptual and neural perspective. Perspectives on Psychological Science. 6, 537-559. doi:10.1177/1745691611419671. PMID:26168376.
- Perez, D. L., Root, J., Brown, A., Vago, D. R., Epstein, J., Cloitre, M., Silbersweig, D., Stern, E. (2012) Frontolimbic Gray-Matter Abnormalities in Childhood Sexual Trauma-Related PTSD. Journal of Neuropsychiatry and Clinical Neurosciences 24(2): 12-12.
- 11. Mind and Life Education Research Network (listed alphabetically: Davidson, RJ, Dunne, J, Eccles, JS, Engle, A, Greenberg, M, Jennings, P, Jha, A, Jinpa, T, Lantieri, L., Meyer, D., Roeser, RW, **Vago**, **DR**. (2012) Contemplative practices and mental training: Prospects for American Education. *Child Development Perspectives*. **6** (2), 146-153. doi:10.1111/j.1750-8606.
- 12. **Vago, D. R.**, and Silbersweig, D. A. (2012). Self-Awareness, Self-Regulation, and Self-Transcendence (S-ART): A Framework for Understanding the Neurobiological Mechanisms of Mindfulness. *Frontiers in Human Neuroscience* 6:296. doi:10.3389/fnhum.2012.00296
- 13. Orringer, D., **Vago**, **D. R**., Golby, A.J. (2013) Clinical Applications and Future Directions of Functional MRI. Seminars in Neurology. 32(4), 466-475. DOI:10.1055/s-0032-1331816
- 14. **Vago, D. R.** (2013). Mapping modalities of self-awareness in mindfulness practice: A potential mechanism for clarifying habits of mind. *Annals of the New York Academy of Sciences*. 1-15. doi:10.1111/nyas.12270
- 15. Davis, J. H, * Vago, D. R. * (2013) Can enlightenment be traced to specific neural correlates, cognition, or behavior? No, and (a qualified) Yes. Frontiers in Human Neuroscience. 4(870). (* shared first authorship) doi:10.3389/fpsyg.2013.00870
- 16. Desbordes, G., Gard, T., Hoge, E. A., Hölzel, B. K., Kerr, C., Lazar, S. W., Olendzki, A., & Vago, D. R. (2015). Moving Beyond Mindfulness: Defining Equanimity as an Outcome Measure in Meditation and Contemplative Research. Mindfulness, 6(2), 356-372. (* shared first authorship) https://doi.org/10.1007/s12671-013-0269-8
- 17. Kripalu Yoga Research Consortium (listed alphabetically: Gard, T.*, **Vago, D. R.***, Noggle, J., Park, C., Wilson, A. (2014). Potential self-regulatory mechanisms of yoga for psychological health: Directions for future research. *Frontiers in Human Neuroscience*. (* shared first authorship) doi:10.3389/fnhum.2014.00770
- Perez, D. L., Barsky, A. J., Vago, D. R., Baslet, G., & Silbersweig, D. A. (2015). A neural circuit framework for somatosensory amplification in somatoform disorders. J Neuropsychiatry Clin Neurosci, 27(1), e40-50. doi:10.1176/appi.neuropsych.13070170
- 19. Cheek, J., Lipschitz, D.L., Abrams, L., **Vago**, **D.R.**, Nakamura, Y. (2015). Dynamic reflexivity in action: An armchair walkthrough of a qualitatively driven mixed-method and multiple method study of Mindfulness-Based Skills Training in School Children. Qualitative Health Research, 25(6), 751-762. doi:10.1177/1049732315582022
- 20. Perez, D. L. Pan, H., Weisholtz, D., Root, J., Fischer, D., Butler, T., **Vago, D. R.**, Isenberg, N., Epstein, J., Silbersweig, D. A., Stern, E. (2015) Altered threat and safety neural processing linked to persecutory delusions in schizophrenia: a two task functional magnetic resonance imaging study. *Psychiatry Research: Neuroimaging*, 233(3), 352-366. doi:10.1016/j.pscychresns.2015.06.002
- 21. Perez, D. L.*, **Vago, D. R.***, Pan, H., Root, J. Fuchs, B. H., Epstein, J., Clarkin, J., Lenzenweger, M. F., Kernberg, O., Levy, K., Silbersweig, D. A., Stern, E. (2015). Frontolimbic neural changes associated with clinical improvement following transference-focused psychotherapy in borderline personality disorder. *Psychiatry and Clinical Neurosciences*, 70(1), 51-61. (* shared first authorship) doi:10.1016/j.pscychresns.2015.06.002

- 22. Hadash, Y., Plonsker, R., **Vago**, **D. R**., & Bernstein, A. (2016). Experiential self-referential and selfless processing in mindfulness and mental health: Conceptual model and implicit measurement methodology. *Psychol Assess*, 28(7), 856-869. doi:10.1037/pas0000300
- 23. **Vago**, **D. R.**, Zeidan, F. (2016). The brain on silent: mind-wandering, mindful awareness, and states of mental tranquility. New York Academy of Sciences, 1373(1), 96-113. doi:10.1111/nyas.13171
- 24. Zeidan, F., Vago, D.R. (2016). Mindfulness meditation-based pain relief: A mechanistic account. New York Academy of Sciences, (1373),1: 114-127. doi:10.1111/nyas.13171
- 25. Yaden, D. B., Haidt, J., Hood Jr, R. W., **Vago, D. R.**, & Newberg, A. B. (2017). The Varieties of Self-Transcendent Experience. *Review of General Psychology*. doi:10.1037/gpr0000102
- Cheek, J., Abrams, E. M., Lipschitz, D. L., Vago, D. R., Nakamura, Y. (2017). Creating novel school-based education programs to cultivate mindfulness in youth: What the letters told us. *Journal of Child and Family Studies*. doi:10.1007/s10826-017-0761-1
- 27. Van Dam, N. T., van Vugt, M. K., **Vago, D. R.**, Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., Gorchov, J., Fox, K. C. R., Field, B. A., Britton, W. B., Brefczynski-Lewis, J. A., Meyer, D. E. (2017). Mind the hype: A critical evaluation and prescriptive agenda for mindfulness and meditation research. *Perspectives on Psychological Science*. doi:10.1177/1745691617709589
- Van Dam, N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., Gorchov, J., Fox, K. C. R., Field, B. A., Britton, W. B., Brefczynski-Lewis, J. A., Meyer, D. E. (2017). Reiterated Concerns and Further Challenges for Mindfulness and Meditation Research: A Reply to Davidson and Dahl. Perspectives on Psychological Science, (1),66-69. PMID: 29016240. PMCID:PMC5817933. doi:10.1177/1745691617727529
- 29. Yaden, D. B., Meleis, M., Newberg, A. B., Vago, D. R., McDaniel, J. (2018). Cross-Cultural Contributions to Psychology and Neuroscience: Self, Mind, and Mindfulness in Buddhism. *Pacific World* 3(19), 53-68. doi:10.1037/gpr0000102
- 30. Vieten, C., Wahbeh, H, Cahn, R. B., MacLean, K., Estrada, M., Millis, P., Shapiro, S., Radin, D., Josipovic, J., Presti, D. E., Sapiro, M., Chozen Bays, J., Russell, P., **Vago**, **D. R.**, Travis, F., Walsh, R., Delorme, A. (2018). Future directions in meditation research: Recommendations for expanding the field of contemplative science. *PLOS ONE*. 13(11):e0205740. doi: 10.1371/journal.pone.0205740
- 31. **Vago**, **D. R.**, Gupta, R. S., & Lazar, S. W. (2018). Measuring cognitive outcomes in mindfulness-based intervention research: a reflection on confounding factors and methodological limitations. *Curr Opin Psychol*, 28, 143-150. doi:10.1016/j.copsyc.2018.12.015
- 32. Schoenberg, P.L.A., Greenberg, J., Tang, Y-Y., **Vago**, **D.R**. (2018). Neuroscience of Compassion: Multidimensional construct and integrative health skill. *Global Advances in Health and Medicine*, 7, 1-285: 34. doi:10.1177/2164956118773837. *Corrigendum by publisher: vol.8:1.
- 33. Schoenberg, P., **Vago**, **D.R.** (2019). Mapping Meditative States and Stages with Electrophysiology: Concepts, Classifications, and Methods. *Curr Opin Psychol*, 28, 211-217. Doi: 10.1016/j.copsyc.2019.01.007
- 34. Bernstein, A., **Vago**, **D. R**., & Barnhofer, T. (2019). Editorial Overview: Understanding Mindfulness, One Moment at a Time: An Introduction to the Special Issue. *Current opinion in psychology*. doi:10.1016/j.copsyc.2019.08.001.
- 35. Loucks, E. B., Nardi, W., R., Gutman, R., Kronish, I. M., Saadeh, F. B., Wentz, A. E., Webb, J., Vago, D.R., Harrison, A., Britton, W. B. Loucks EB, Nardi WR, Gutman R, et al. Mindfulness-Based Blood Pressure Reduction (MB-BP): Stage 1 single-arm clinical trial. (2019) PLoS One, 14(11):e0223095. doi:10.1371/journal.pone.0223095
- 36. Gupta, R. S., Kujawa, A., **Vago**, **D. R**. The Neural Chronometry of Attentional Bias: Evidence for Early and Late Stages of Selective Attentional Processing. (2019). *International Journal of Psychophysiology*, 146:20–42. doi:10.1016/j.ijpsycho.2019.08.006
- 37. Loucks, E. B., Nardi, W. R., Gutman, R., Saadeh, F. B., Li, Y., **Vago, D. R.**, Fiske, L. B., Spas, J. J., & Harrison, A. (2020, 2020/09//). Mindfulness-Based College: A Stage 1 Randomized Controlled Trial for University Student Well-Being. *Psychosomatic Medicine*. https://doi.org/10.1097/psy.0000000000000860
- 38. Van Dam, N. T., van Vugt, M., **Vago, D. R.**, Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Gorchov, J., Fox, K. C. R., Field, B. A., Britton, W., Brefczynski-Lewis, J., & Meyer, D. E. (2020). Letter to the Editor: Miscommunicating Mindfulness. *Perspectives on Psychological Science*: A journal of the Association for *Psychological Science*, 1745691620924057. https://doi.org/10.1177/1745691620924057
- 39. Schuman-Olivier, Z., Trombka, M., Lovas, D. A., Brewer, J. A., **Vago, D. R.**, Gawande, R., Dunne, J. P., Lazar, S. W., Loucks, E. B., & Fulwiler, C. (2020). Mindfulness and Behavior Change. Harvard review of psychiatry, 28(6). https://journals.lww.com/hrpjournal/fulltext/2020/11000/mindfulness and behavior change.3.aspx
- 40. Hoge, E. A., Acabchuk, R. L., Kimmel, H., Moitra, E., Britton, W. B., Dumais, T., Ferrer, R. A., Lazar, S. W., **Vago, D.**, Lipsky, J., Schuman-Olivier, Z., Cheaito, A., Sager, L., Peters, S., Rahrig, H., Acero, P., Scharf, J., Loucks, E. B., & Fulwiler, C. (2020). Emotion-Related Constructs Engaged by Mindfulness-Based Interventions: A Systematic Review and Meta-analysis. *Mindfulness*. https://doi.org/10.1007/s12671-020-01561-w
- 41. Gupta, R. S., Kujawa, A., & **Vago**, **D. R**. (2021). A preliminary investigation of ERP components of attentional bias in anxious adults using temporospatial principal component analysis (vol 35, pg 223, 2021). JOURNAL OF PSYCHOPHYSIOLOGY, 36(3), 198-198. https://doi.org/10.1027/0269-8803/a000275
- 42. Whitfield, T., Barnhofer, T., Acabchuk, R., Cohen, A., Lee, M., Schlosser, M.,, Lutz, A., Lazar, S., **Vago, D.R.**, Marchant, N. (2021). The effect of mindfulness-based programs on cognitive performance in adults: a systematic review and meta-analysis. *Neuropsychology Review*. https://doi.org/10.1007/s11065-021-09519-y

- 43. Culang, H., Davis, E.R., Egan, L., Simmons, A., **Vago, D.R.**, Finley, S., Dennis, T. Changing Minds: A Pilot Feasibility Study of Mindfulness Trainina for At-Risk Adolescents. (2021) *National Youth-at-Risk Journal*.
- 44. Pal, P., A., Ghosh, A., Vago, D.R., Brewer, J. (2021). Aestheticization of Ultrasound Images. TechRxiv.
- 45. Britton, W. B., Desbordes, G., Acabchuk, R., Peters, S., Lindahl, J. R., Canby, N. K., **Vago, D. R.**, Dumais, T., Lipsky, J., Kimmel, H., Sager, L., Rahrig, H., Cheaito, A., Acero, P., Scharf, J., Lazar, S. W., Schuman-Olivier, Z., Ferrer, R., & Moitra, E. (2021). From Self-Esteem to Selflessness: An Evidence (Gap) Map of Self-Related Processes as Mechanisms of Mindfulness-Based Interventions [Review]. Frontiers in psychology, 12. https://doi.org/10.3389/fpsyg.2021.730972
- 46. Gupta, R. S., Kujawa, A., Fresco, D. M., Kang, H., & **Vago**, **D. R.** (2022). Mindfulness-Based Cognitive Therapy: A Preliminary Examination of the (Event-Related) Potential for Modifying Threat-Related Attentional Bias in Anxiety. Mindfulness, 13(7), 1719-1732. https://doi.org/10.1007/s12671-022-01910-x
- 47. Rahrig, H., **Vago**, **D. R.**, Passarelli, M. A., Auten, A., Lynn, N. A., & Brown, K. W. (2022). Meta-analytic evidence that mindfulness training alters resting state default mode network connectivity. Scientific Reports, 12(1), 12260. https://doi.org/10.1038/s41598-022-15195-6
- 48. Dusek, J. A., Kallenberg, G. A., Hughes, R. M., Storrow, A. B., Coyne, C. J., **Vago, D. R.**, Nielsen, A., Karasz, A., Kim, R. S., Surdam, J., Segall, T., & McKee, M. D. (2022). Acupuncture in the emergency department for pain management: A BraveNet multi-center feasibility study. Medicine, 101(9). https://journals.lww.com/md-journal/fulltext/2022/03040/acupuncture_in_the_emergency_department_for_pain.26.aspx
- 49. Mishra, K. K., Victorson, D., Mehta, D. H., & **Vago**, **D. R.** (2022). Personalized Mind–Body Medicine in Integrative Oncology: Meeting the Moment with Each Patient. Journal of Integrative and Complementary Medicine, 28(6), 457-462. https://doi.org/10.1089/jicm.2022.0562
- 50. Hart, J., Frates, B., **Vago**, **D**., & Mehta, D. (2022). Meditation Roundtable Discussion: Cultivating Calm, Connection and Stress Relief in Difficult Times. Integrative and Complementary Therapies, 28(2), 65-71. https://doi.org/10.1089/ict.2022.29008.bfr
- 51. Eusebio, J., Forbes, B., Sahyoun, C., **Vago**, **D. R.**, Lazar, S. W., & Farb, N. (2022). Contemplating movement: A randomized control trial of yoga training for mental health. *Mental Health and Physical Activity*, 23, 100483. https://doi.org/10.1016/j.mhpa.2022.100483
- 52. **Vago, D. R.**, Farb, N. A. S., & Spreng, N. (2023). Clarifying Internally-directed Cognition: A Commentary on the Attention to Thoughts Model. *Psychological Inquiry*. https://doi.org/10.1080/1047840X.2022.2141005
- 53. Pal, P., Banèrjee, A., Ghosh, A., **Vago**, **D.R.**, Brewer, J. (2023). <u>DFT21: Discrete Fourier Transform in the 21st century</u>. *TechRxiv*.
- 54. Giommi, F., Bauer, P. R., Berkovich-Ohana, A., Barendregt, H., Brown, K. W., Gallagher, S., Nyklíček, I., Ostafin, B., Raffone, A., Slagter, H. A., Trautwein, F.-M., & Vago, D. R. (2023). The (In)flexible self: Psychopathology, mindfulness, and neuroscience. *International Journal of Clinical and Health Psychology*, 23(4), 100381. https://doi.org/10.1016/j.iichp.2023.100381
- 55. Gallagher, S., Raffone, A., Berkovich-Ohana, A., Barendregt, H. P., Bauer, P. R., Brown, K. W., Giommi, F., Nyklíček, I., Ostafin, B. D., Slagter, H., Trautwein, F.-M., & Vago, D. R. (2024). The Self-Pattern and Buddhist Psychology. Mindfulness, 15(4), 795-803. https://doi.org/10.1007/s12671-023-02118-3
- 56. Ganesan, S., A. Tsuchiyagaito, G. Siegle, p. goldin, L. Eyler, I. Treves, A. Lutz, G. Pagnoni, P. C. Dagnino, A. Escrichs, L. F. Saccaro, M. Sacchet, V. Tripathi, I. Batta, R. Prakash, K. W. Brown, N. Reggente, S. Khalsa, T. McDermott, S. Valk, Y.-Y. Tang, N. Fani, G. Deco, E. Garland, V. Calhoun, S. Davanger, C. Piguet, C. C. C. Bauer, F. A. Barrios, G. Chételat, N. Kirlic, D. M. Fresco, H. Rahrig, A. Torske, Y. Kang, J. Cain, N. Farb, R. Garg, M. Turner, S. Fialoke, D. Hafeman, J. Dutcher, J. Brewer, D. Creswell, T. S. Braver, F. Zeidan, **D. Vago**, S. Lazar, R. Davidson, C. R. K. Ching, N. Jahanshad, S. Thomopoulos, P. Thompson, A. Zalesky, J. Turner and A. King (2024). ENIGMA-Meditation: Worldwide consortium for neuroscientific investigations of meditation practices, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging. https://doi.org/10.1016/j.bpsc.2024.10.015
- 57. Berkovich-Ohana, A., Brown, K. W., Gallagher, S., Barendregt, H., Bauer, P., Giommi, F., Nyklíček, I., Ostafin, B., Raffone, A., Slagter, H. A., Trautwein, F.-M., **Vago**, **D**., & Amaro, A. (2024). Pattern Theory of Selflessness: How Meditation May Transform the Self-Pattern. Mindfulness, 15(8), 2114-2140. https://doi.org/10.1007/s12671-024-02418-2
- 58. Dusek, J. A., Kallenberg, G. A., Storrow, A. B., Hughes, R. M., Coyne, C. J., **Vago, D. R.**, Nielsen, A., Karasz, A., Kim, R. S., Surdam, J., Segall, T., Faryar, K. A., Dyer, N. L., Barton, B. A., & McKee, M. D. (2024). ACUpuncture In The Emergency Department (ACUITY): Results from a BraveNet Multi-Center Feasibility Randomized Controlled Trial. Integrative Medicine Research, 101095. https://doi.org/10.1016/j.imr.2024.101095

Books, book chapters, invited review articles and White Papers

- 1. Wallenstein, G.V., **Vago**, **D.R.**, Walberer, A.M. (2001) Hippocampus. In <u>Encyclopedia of Neurological Sciences</u>, Academic Press.
- 2. Roeser, R.W., **Vago**, **D.R.**, Pinela, C., Morris, L.S., Taylor, C., and Harrison, J. (2013). "Contemplative Education: Cultivating Positive Mental Skills and Social-Emotional Dispositions through Mindfulness Training," in *Handbook of Moral and Character Education*. 2nd ed.
- 3. **Vago, D.R.**, Morris, L.S., Wallenstein, G.V., (2014) Hippocampus. In <u>Encyclopedia of Neurological Sciences</u>, 2nd ed. Academic Press.
- 4. **Vago, D.R.**, Morris, L.S., Wallenstein, G.V., (2016) Hippocampus. In <u>Encyclopedia of Neurological Sciences</u>, 2nd ed. Academic Press.

- 5. McKernan, L.C., Coronado, R, & **Vago**, **D.R.** (2020). Clinical Hypnosis and Mindfulness-Based Interventions for Spinal Pain. In C. Liberson (ed), Rehabilitation of the Spine, 3rd edition.
- 6. Tom, M., **Vago**, **D. R.** Equanimity in Neuropsychiatry: Science and Applications. In Oxford University Press, "The Virtues in Psychiatric Practice". 2021.
- 7. **Vago**, **D.R.** How Does Meditation Change the Body-Mind-Brain? A Neurophilosophical and Pragmatic Account of Body-Mind-Brain Interactions and Relevance to Clinical Health and Well-being. In Routledge Handbook of the Philosophy of Meditation. Spring, 2022.
- 8. **Vago, D.R.**, Gusnard, D., Silbersweig, D.A. (*Spring, 2024*). Neuropsychiatry of Self. Kaplan and Sadock's Comprehensive Textbook of Psychiatry. Wolters Kluwer.
- 9. Vago, D.R., Acabchuk, R. (2024). Roundglass Living: Wholistic Wellbeing for Kids & Teens. Whitepaper. Roundglass Living. [Link]
- 10. **Vago, D.R.** Matwin, S. (2024). From little 'm' to Big 'M' Mindfulness: A Neurodevelopmental and Clinical Perspective on States and Stages of Mindfulness and Compassion. Handbook of Mindfulness & Self-Regulation. Springer.
- 11. Vago, D.R. (2024) Roundglass Workplace Wellbeing Report: India [Link]
- 12. **Vago**, **D.**R., Acabchuk, R. (2024) A Wholistic Solution for Mental Health and Wellbeing in Youth: Addressing a high-stakes global crisis head-on. [<u>Link</u>]
- 13. **Vago**, **D.R.** (Jan, 2025). Neurophenomenology, Mindfulness, and the Self. Handbook of Mindfulness: Theory, Research, and Practice, 2nd ed., Guilford Publications.

Conference Abstracts

- 1. **Vago**, **D.R.**, Hone, A., Barrett, C., Kesner, R. P., Wallenstein, G. V. (2002). Intrahippocampal blockade of a7, a3β2, a2β4, and a4β4 nicotinic acetylcholine receptors disrupts early consolidation and acquisition of contextual fear. *Society for Neuroscience Abstracts*, 185.2.
- 2. **Vago**, **D.R.**, Calder, A., Kesner, R. P. (2003). Functional characterization of the direct perforant path into the hippocampus. *Society for Neuroscience Abstracts*, 835.2.
- 3. **Vago, D.R.,** Kesner, R. P. (2004). The role of the direct perforant path in retrieval and detection of spatial change. Society for Neuroscience Abstracts, 434.3.
- 4. **Vago**, **D.R.**, Kesner, R. P. (2005). An electrophysiological and behavioral characterization of the temporoammonic pathway: Disruption produces deficits in retrieval and spatial mismatch. *Society for Neuroscience Abstracts*, 647.5.
- 5. Nakamura Y., **Vago**, **D.R.**, Volinn, E. (2007). *Mindfulness Meditation Training for Fibromyalgia (Chronic Pain Condition)*. Abstract published in the Proceedings of the meeting, "Toward a Science of Consciousness", Budapest, Hungary.
- 6. Roeser RW, Sims, JM, Mills, KLM, Carlson, BR, **Vago D.R** (2011) Pilot Study of a Music-based Mindfulness Training (MBMT) for Stress-Reduction Among College-Attending Adults. Biennial Meeting of the Society for Research on Child Development, Montreal, Canada.
- 7. Brown A, Root J, Perez DL, **Vago**, **D.R**., Teuscher O, Pan H, Cloitre M, LeDoux J, Silbersweig D, Stern E. (2011) Functional and Structural Abnormalities in Childhood Sexual Abuse-Treated PTSD: Implications for Characterization and Treatment. *International Society for Traumatic Stress Studies*.
- 8. **Vago**, **D. R.**, Pan, H., Stern, E., & Silbersweig, D. A. (2013). Neural Substrates Underlying Modalities of Awareness in Mindfulness Practice. American Neuropsychiatric Association Annual Meeting Abstracts. *Neuropsychiatry Clin Neurosci*, 25(2), P102.
- 9. Gupta, R.S., Fresco, D.M., Bernstein, A., Kang, H., Mohr, E.M., Schoenberg, P.L.A., **Vago, D.R.** (2019) The effect of mindfulness-based cognitive therapy on event-related potential markers of attentional bias in anxiety. Society for Neuroscience Abstracts.
- 10. Schoenberg, P.L.A., Henry, J.M., **Vago**, **D.R.**, Speckens, A.E.M (2019). Modulated electrocortical current density dynamics in major depression following mindfulness-based cognitive therapy. Society for Neuroscience Abstracts.
- 11. Mohr, E.M., Brandmeyer, T., Hecht, R., Gupta, R. S., Schoenberg, P. L. A., **Vago**, **D. R.** (2019). The effects of mindfulness-based interventions on sustained attention and inhibitory control. Society for Neuroscience Abstracts.
- 12. Mohr, E.M., Brandmeyer, T., Hecht, R., Gupta, R. S., Schoenberg, P. L. A., Vago, D. R. (2020). Sustained attention and inhibitory control in patients exposed to Mindfulness-based Stress Reduction. Cognitive Neuroscience Society.
- 13. Gupta, R. S., Kujawa, A., Fresco, D.M., Bernstein, A., Kang, H., Schoenberg, P.L.A., **Vago, D.R.** (2020). Mindfulness-based cognitive therapy: It's got (event-related) potential for attentional bias in anxiety. Cognitive Neuroscience Society.
- 14. Schoenberg, P.L.A., Mohr, E.M., Gupta, R.S., Kirchberg, S., **Vago**, **D.R.** (2020). Modulated Error-Related Negativity (ERN/ERP) to Negative Stimuli in Depressed patients exposed to Mindfulness-Based Cognitive Therapy (MBCT). Cognitive Neuroscience Society.
- 15. Dusek, J., McKee, D.M., Weber, W., Kallenberg, G., **Vago**, **D. R**., Karasz, A., Kim, R. (2021). Acupuncture for acute pain management in the ED. Society for Acupuncture.
- 16. Acabchuk, R. Poddar, P. **Vago**, **D.R.** (2021). Development of a Wholistic Wellbeing Index. Academic Consortium for Integrative Medicine.

- 17. Dusek, J., Kallenberg, G., Storrow, A., Vago, D.R., Hughes, R., Coyne, C., Karasz, A., Nielsen, A. (2021). Acupuncture In The Emergency Department for Pain Management (**ACUITY**): A BraveNet Multi-Center Feasibility Study. Academic Consortium for Integrative Medicine.
- 18. Keating, B., **Vago**, **D.R**., Donahue, M. (2024). Meditation engages imaging biomarkers of the neurofluid circuit (i.e., glymphatic pathways) similar to sleep and potentially different from paced breathing. International Society for Contemplative Research. Padova, Italy.

Select Blog Posts and Digital Content

- 1. **Vago**, **D. R**. (2012). Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness. <u>Contemplative Mind and Life Bloa</u>
- 2. Vago, D.R. (2013). Can Enlightenment be Traced to Specific Correlates of the Brain, Cognition, or Behavior? Contemplative Mind and Life Blog
- 3. Vago, D. R. (2014). New model of self-regulatory mechanisms for yoga. Contemplative Mind and Life Blog
- 4. Vago, D. R. (2021). The Science of Meditation and Mindfulness for Mental Health. Roundglass
- 5. Somerville, M., reviewed by **Vago**, **D.R.** (2021). <u>How Music Can Help You Sleep</u>. Roundglass
- 6. Somerville, M., reviewed by Vago, D.R. (2021). The Mind-Body Benefits of Meditation. Roundglass
- 7. Somerville, M., reviewed by Vago, D.R. (2021). How to Meditate for Beginners. Roundglass
- 8. Somerville, M., reviewed by Vago, D.R. (2022). Having Trouble Sleeping? How Meditation Can Help. Roundglass
- 9. Kamjoi, J., reviewed by Vago, D.R. (2021). The Truth About Stress and Mindfulness. Roundglass
- 10. Kamjoi, J., reviewed by Vago, D.R. (2022). "Which Meditation Style Suits You?" Roundglass
- 11. Krupski, B.., reviewed by Vago. D.R. (2022). Ease Pain with Mindfulness. Roundglass

Kids and Teens Meditation & Breathwork			
Mantra for releasing fears	<u>The Flashlight</u>	Relax at the Beach	
<u>Pizza Meditation</u>	The Mindful Sound Detective	Wiggle Worm Meditation	
<u>Gratitude Boost</u>	Strong Like a Tree	Breathe Like a Lion	
Magic Eyes	<u>Tasty Thoughts</u>	<u>Future Me: Time Machine Meditation</u>	
Nurture Love & Kindness	My Body Scanner	Dream for Peace	
Rainbow Feelings	<u>Buzzing Bee Breath</u>	Animal Power	
Calm the Monkey Mind	<u>Train Your Super Senses</u>	Mindful Conversations	

Meditation and Breathwork for Adults		
Breathwork for Inner Heat	Power Breathing to Boost Immunity	Body Scan for Anxiety
Soothing Alternate Nostril Breathing	Box Breathing for Maximum Calm	Invigorating Mindful Walk
Breathwork for Instant Relaxation	Breathwork for a Better Mood	Easy Breath Meditation for Stress
Energizing Breath of Fire	Pause Before Overreacting – Noting & Labeling	Gain Clarity & Perspective Open Monitoring
4-7-8 Breath to Fall Asleep Quickly	Cover Yourself in Love, Kindness, & Joy	Increase Focus & Concentration

Presentations at Scientific Meetings

1995

• **Poster presentation**. "Immunocytochemical localization of selective glutamate receptor subunits in kainic acid treated rats". Society for Neuroscience

2001

 Oral presentation. "PKA/PKC inhibition produces a time-dependent retrograde deficit of contextual fear conditioning", Society for Neuroscience

2002

 Poster Presentation. "Intrahippocampal blockade of a7, a3β2, a2β4, and a4β4 nicotinic acetylcholine receptors disrupts early consolidation and acquisition of contextual fear". Society for Neuroscience

 Poster presentation. "Functional characterization of the direct perforant path into the hippocampus" Society for Neuroscience

2004

 Poster presentation. "The role of the direct perforant path in retrieval and detection of spatial change". Society for Neuroscience

2005

 Poster presentation. "An electrophysiological and behavioral characterization of the temporoammonic pathway: Disruption produces deficits in retrieval and spatial mismatch" Society for Neuroscience

2006

• **Oral presentation.** "The effects of mindfulness meditation training on cognitive and emotional biases associated with the perception of pain in fibromyalgia". Mind & Life Summer Research Institute.

2008

• Oral presentation. "Mindfulness Training for Fibromyalgia: Changes in General Symptoms, Perception of Pain, and Associated Brain Correlates. 6th Annual Conference: Integrating Mindfulness-Based Interventions into Medicine, Health Care, and Society for Clinicians, Researchers, and Educators, Center for Mindfulness, Worcester, MA.

2010

- **Oral presentation.** "Mindfulness Meditation Training for Fibromyalgia: A Preliminary Study Investigating Attention-related Bias on a Dot-Probe Task. American Psychosomatic Society Workshop: Meditation Research and Psychosomatic Medicine Evidence for Efficacy, Research Design Challenges and Lessons Learned.
- **Poster presentation.** "Mindfulness Meditation Training for Fibromyalgia: A Preliminary Study Investigating Attention-related Bias on a Dot-Probe Task. American Psychosomatic Society. Stress & Health. Abstract 1453.
- **Poster presentation.** "Effects of mindfulness meditation on perceived symptoms of fibromyalgia: A qualitative approach to understanding clinical changes. Center for Mindfulness, Worcester, MA.

2012

- Oral presentation. "But why is paying attention to the present moment good for you? Neuro-Psycho-Behavioral processes underlying the salutary effects of mindfulness". Bernstein, A. (Chair), 46th annual Association for Behavioral and Cognitive Therapies convention, National Harbor, MD.
- Oral presentation. "Self-Awareness, Self-Regulation, and Self-Transcendence: A Framework for Understanding the Neurobiological Mechanisms of Mindfulness", Bessel A. van der Kolk's 23rd Annual International Trauma Conference.
- **Oral presentation**. "Mindfulness Meditation Training for Depression Targeting Specific Mechanisms for Predicting Treatment Response", Brigham & Women's Hospital Depression Center.
- **Poster presentation**. "The Effects of Mindfulness on Iconic Memory", in: Mind & Life Summer Research Institute: The Situated and Embodied Mind.
- **Oral presentation**. "Mechanisms of Mindfulness: Integrating Neurobiological, Clinical, and Buddhist Models with Standards for Measurement", Lazar, S., (Chair), International Symposia for Contemplative Studies. Boston, MA.
- **Oral presentation**. "Aligning the Goals of Contemplative Science with the Funding Priorities of NIMH Fresco, D. (Chair), International Symposia for Contemplative Studies. Boston, MA.
- Oral presentation. "Pain and Mindfulness Meditation", Nakamura, Y. (Chair), International Symposia for Contemplative Studies., Boston, MA
- "Neurobiological Models for Mindfulness", Mind and Life XXIV, Latest Findings in Contemplative Neuroscience. A
 private meeting with His Holiness, The Dalai Lama. April 24th, 2012.
- **Grand Rounds.** "Emerging Neurobiological Models for Mindfulness: Conceptual Clarifications and Opportunities for Clinical Research", Harvard Longwood Psychiatry Grand Rounds, Beth Israel Deaconess Medical Center

2013

- Oral presentation. "Limbic Neuromodulation through Meditative Practice without Suppression or Appraisal", Neurobehavioral Facets of Emotion Regulation in Normative, Disordered, and Treatment Contexts. Chair: D. M. Fresco; Association for Behavioral and Cognitive Therapy.
- **Poster presentation.** "Neural Substrates Underlying Modalities of Awareness in Mindfulness Practice", American Neuropsychiatric Association Annual Meeting, Boston, MA.
- Poster presentation. "Neural Substrates Underlying Modalities of Awareness in Mindfulness Practice. Brain
 Research Institute Neurosciences Research Center, Interdisciplinary mini-retreat and poster session. Brigham &
 Women's Hospital, Harvard Medical School, Boston, MA.

- Invited Keynote. "Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness", Interdisciplinary Symposium on Empathy, Contemplative Practice and Pedagogy, the Humanities and the Sciences, University of Utah, Department of Languages and Literature
- Invited Keynote. "Self-Awareness, Self-Regulation, & Self-Transcendence: A Systems-based Integrative Framework by which Mindfulness Functions to Reduce Bias and Sustain a Healthy Mind", Center for Mindfulness, International Scientific Conference for Clinicians, Researchers and Educators, Kluge Symposium on Mindfulness and Compassion: Mechanisms, Models, and More, Worcester, MA.

- **Oral presentation.** "Moving beyond Mindfulness: Defining Equanimity as an Outcome Measure in Meditation Research". Center for Mindfulness, Worcester, MA.
- **Oral presentation.** "Moving beyond Mindfulness: Defining Equanimity as an Outcome Measure in Meditation Research", International Symposium for Contemplative Studies, Boston, MA.
- Oral presentation. "Health & Stress Evaluation of Young Adults A Long-term Opportunistic Follow-up
 Assessment of Mindfulness Training in School Children, International Symposium for Contemplative Studies,
 Boston, MA.
- **Oral presentation.** "Potential Self-regulatory mechanisms of yoga for psychological health", International Symposium for Contemplative Studies, Boston, MA.

- Oral presentation. "Foundational Issues in Cognitive Science from Contemporary Scientific and Buddhist Perspectives". Mind and Life XXVIII with His Holiness, the Dalai Lama, Serra Monastery, Bylakuppe, India.
- Workshop Leader. "Mindfulness and Compassion Training: Science and Clinical Practice", All-day mandatory training workshop for Harvard Longwood Psychiatry residents, with Sonia Matwin, Ph.D., Randal Paulsen, M.D., and Christopher Germer, Ph.D.
- Oral presentation. "Neural Mechanisms and Predictors of Expertise in Open Monitoring Meditation", Advances in Meditation Research, Memorial Sloan Kettering and New York Academy of Sciences
- Invited Keynote. "The Resting Brain in Experienced Meditators: Mapping Modalities of Quiescence",
 Consciousness, Mindfulness, & Compassion International Association Conference, San Francisco State University
- Oral presentation. "Brain, Mind & Soul: Advances in Clinical & Scientific Approaches to Brain-Mind Health & Spirituality", 4th Annual Conference on Medicine and Spirituality, Cambridge, MA
- Oral presentation. "Mechanisms of Mind-Body Medicine in Cardiovascular Health", Osher Center for Integrative Medicine, Mind-Body and Cardiovascular Health
- Oral presentation. "Neurocognitive Substrates and Mechanisms of Mindfulness Meditation", Conference on Medicine and Religion, Cambridge, MA

2016

- **Grand Rounds.** "The Neurobiology of Mindfulness and Clinical Implications". Physical Medicine & Rehabilitation, Vanderbilt University Medical Center
- Invited Keynote. "The Neurobiology of Mindfulness and Clinical Relevance". Launching SUNY Initiatives in Mindfulness and Health, State University of New York (SUNY) Conversations in the Disciplines Grant, Western New York Contemplative Faculty & Staff Group, Buffalo, NY
- Invited Keynote. "Foundational Issues in the Basic Neuroscience and Clinical Science of Mindfulness". Brigham Young University, Neuroscience Research Program, Provo, UT
- Invited Keynote. "Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness Across the Spectrum of Expertise", MD Anderson Cancer Center, Houston, TX

2017

- Oral presentation. "Common Pathways for Fronto-striatal-limbic Functioning: States of Meditation and Psychopathology". Vanderbilt Institute for Imaging Science, Vanderbilt University Medical Center, February, 2017
- Oral presentation. "The Neurobiology of Mindfulness and Clinical Implications". Tennessee Psychological Association Annual Convention, Nashville Airport Marriott, November, 2017
- Oral presentation. "Mapping the Meditative Mind: Neural substrates for Modalities of Awareness". Seminars in Neuroscience: Brain, Mind, and Society, Brain Research Institute, Vanderbilt University, December, 2017
- **Grand Rounds.** "The Neurobiology of Mindfulness and Clinical Implications". Psychiatry & Behavioral Sciences, Vanderbilt University Medical Center, December, 2017

- Oral presentation. "Targeting Self-Regulatory Mechanisms in Mindfulness-based Interventions", Bravenet meeting, San Diego, CA, April, 2018
- Oral presentation. "Neuroscience of Compassion: Multi-dimensional Construct and Integrative Health Skill". International Congress on Integrative Medicine and Health, May, 2018
- Oral presentation. "The Effects of Mindfulness on Pain: Present & Future Prospects for Research and Clinical Application". International Congress on Integrative Medicine and Health, May, 2018
- **Poster presentation**. Hadash Y, Plonsker R, **Vago DR**, Bernstein A. Experiential Self-Referential and Selfless Processing in Mindfulness and Mental Health: Conceptual Model and Implicit Measurement Methodology. Paper presented at: International Conference on Mindfulness (ICM), July 2018; Amsterdam, Netherlands.
- Oral presentation. Vago, DR, Matwin, S. The Third Wave of Cognitive and Behavioral Therapies: Science and Practice of Mindfulness, Tennessee Psychological Association Annual Convention, November, 2018
- Oral presentation. "What Do We Know & Where Should We Go? A Critical Discussion on the Science of Mindfulness & Meditation". Panel Discussion with Tania Singer, PhD, Richard J. Davidson, PhD, Yuval Hadash, PhD, and Amit Bernstein, International Symposium for Contemplative Research, Phoenix, AZ, November, 2018

• Oral presentation. "Cognitive Mechanisms and Effects of Mindfulness". Group paper session with Arnaud Delorme, PhD, Yuval Hadash, PhD, and Amit Bernstein, International Symposium for Contemplative Research, Phoenix, AZ. November, 2018

2019

- Oral presentation. "Cognitive, psychosocial, and neurobiological mechanisms of mindfulness", Mechanisms of Meditation and Consequences for Clinical Practice, Mind and Life Think Tank, Antonino Raffone, Elena Antonova, Jos Brosschot, Anne Speckens, Heleen Slagter, Philipp Kanske, Judson Brewer, Susan Bogels, Henk Barendregt, Zoltan Dienes, Amber Carpenter, Shaun Gallagher, Thorsten Barnhofer, Brian Ostafin, Leiden, Netherlands, December, 2019
- Poster presentation. Gupta, R.S., Fresco, D.M., Bernstein, A., Kang, H., Mohr, E.M., Schoenberg, P.L.A., Vago, D.R. (2019) The effect of mindfulness-based cognitive therapy on event-related potential markers of attentional bias in anxiety. Society for Neuroscience Abstracts.
- **Poster presentation.** Schoenberg, P.L.A., Henry, J.M., **Vago**, **D.R.**, Speckens, A.E.M (2019). Modulated electrocortical current density dynamics in major depression following mindfulness-based cognitive therapy. Society for Neuroscience Abstracts.
- Poster presentation. Mohr, E.M., Brandmeyer, T., Hecht, R., Gupta, R. S., Schoenberg, P. L. A., Vago, D. R. (2019).
 The effects of mindfulness-based interventions on sustained attention and inhibitory control. Society for Neuroscience Abstracts.

2020

- **Poster presentation**. Mohr, E.M., Brandmeyer, T., Hecht, R., Gupta, R. S., Schoenberg, P. L. A., **Vago, D. R.** (2020). Sustained attention and inhibitory control in patients exposed to Mindfulness-based Stress Reduction. Cognitive Neuroscience Society.
- Poster presentation. Gupta, R. S., Kujawa, A., Fresco, D.M., Bernstein, A., Kang, H., Schoenberg, P.L.A., Vago, D.R. (2020). Mindfulness-based cognitive therapy: It's got (event-related) potential for attentional bias in anxiety. Cognitive Neuroscience Society
- **Poster presentation**. Schoenberg, P.L.A., Mohr, E.M., Gupta, R.S., Kirchberg, S., **Vago**, **D.R.** (2020). Modulated Error-Related Negativity (ERN/ERP) to Negative Stimuli in Depressed patients exposed to Mindfulness-Based Cognitive Therapy (MBCT). Cognitive Neuroscience Society.
- Symposium Talk. Vago, D.R. (moderator, presenter), Olendzski, A., Bernstein, A. (2020). Perspectives on metaawareness and attention: Implications for biases of external and internal attention. Contemplative Research Conference.
- **Symposium Talk. Vago, D.R.** (moderator), Acabchuk, R., Motra, E., Whitfield, T. (2020). Self-Regulatory Processes Engaged by Mindfulness-Based Interventions: A Series of Systematic Reviews and Meta-Analyses. Contemplative Research Conference.
- Symposium Talk. Vago, D.R. (moderator), Davidson, R.J., Murthy, V., Crockett, M. (2020). "Pathways to Resilience
 in the Pandemic from a Contemplative, Moral and Public Health Perspective". Contemplative Research
 Conference.
- Conference talk. Gupta, R., Kujawa, A., Fresco, D.M., Bernstein, A., Kang, H., Schoenberg P.L.A, Vago, D.R. (2020). Mindfulness-based cognitive therapy: It's got (event-related) potential for attentional bias in anxiety. Contemplative Research Conference.

2023

- Symposium Talk. Vago, D.R. (moderator), Huberty, J., Hu, E., Goldberg, S. (2023). "Challenges & Opportunities in Mobile MindBody Health, Digital Therapeutics Research & Implementation". International Society for Contemplative Research.
- Symposium Talk. Vago, D.R. (moderator), Schuman-Olivier, Z., Loucks, E., Moitre, E. (2023). "Mindfulness and the Science of Behavior Change". International Society for Contemplative Research.
- **Symposium Talk. Vago, D.R.** (moderator), Cahn, R., Conklin, Q., Donahue, M. (2023). "Probing Inflammatory Mechanisms of Meditation: Glymphatics, Telomeres, and Cytokines". International Society for Contemplative Research.
- **Invited Keynote**. Vago. D.R. (October, 2023). "Self-transformation through Contemplation". Contemplation by Design Summit, Stanford University [Online].

- **Co-Chair. Vago, D.R.,** Van Vugt, M. "Measurement issues in contemplative science". (2024) Post-conference workshop. (2024) International Society for Contemplative Research.
- Symposium Talk. Vago, D.R., Ekman, E., Cebolla, A, Fleming, J.R., Rodriguez, E., (2024) "Beyond wellbeing: The intersection of art and technology to catalyze contemplative consciousness and deep relating" Schuman-Olivier, Z., Loucks, E., Moitre, E. (2023). "Mindfulness and the Science of Behavior Change". International Society for Contemplative Research.
- **Symposium Talk. Vago, D.R.**, Nyklicek, I., Matko, K., Trautwein, F-M, Cahn, R. (2024) "Impact of mindfulness meditation on neurophysiological, cognitive, and behavioural indices of self-related processing". International Society for Contemplative Research.

- Chair. Vollenweider, F. (2024) "Neuroscientific foundations of psychedelic experience: Potential synergies with mindfulness meditation and clinical implication". International Society for Contemplative Research.
- Chair. Exploring Meditation's Impact on Brain and Cognition. International Society for Contemplative Research.
- **Symposium Talk. Vago, D.R.**, Donahue, M., Keating, B., (2024) "Meditation engages imaging biomarkers of the neurofluid circuit (i.e., glymphatic pathways) similar to sleep and potentially different from paced breathing" International Society for Contemplative Research.

Invited Lectures and Talks 2006

• (2006, October). Neuroanatomy – Function and Dysfunction. Invited lecture. Department of Psychology, Westminster College, Salt Lake City, UT.

2007

- (2007, February). Memory. Invited lecture. Department of Psychology, Southern Oregon University. Ashland, OR.
- (2007, May). Neurobiological effects of meditation. Invited lecture. Presbyterian Church, Salt Lake City, UT.
- (2007, June). Mindfulness and Fibromyalgia. Invited lecture. Mind & Life Summer Research Institute, Garrison, NY.

2009

- (2009, January). Happiness and the Brain. Invited panel for Television with Zindel Segal, Jordan Peterson, David Fresco. The Agenda with Steve Paikin, TV Ontario.
- (2009, April). <u>Attention, Memory & The Mind: A Synergy of Psychological, Neuroscientific, & Contemplative Perspectives with His Holiness the 14th Dalai Lama. Invited Blogging for <u>Mind and Life XVIII: Attention, Memory & the Mind, Dharamsala, India.</u></u>
- (2009, June). The Contemplative Neurosciences. Invited lecture. Mind & Life Summer Research Institute, Garrison, NY.
- (2009, September). The Emerging Field of Contemplative Neuroscience. Invited lecture. Department of Psychiatry, Brigham & Women's Hospital, Harvard Medical School.
- (2009, December). The Neurobiology of Self. Invited lecture. Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School.
- (2009, December). <u>The Effects of Meditation & Contemplative Practice on Pain</u>. Invited Interview on National Public Radio, Charlotte affiliate WFAE.

2010

- (2010, March). Effects of Contemplative Practice on Developmental Neuroplasticity. Invited lecture. Department of Psychology, Portland State University.
- (2010, June). The Emerging Field of Contemplative Neuroscience. Invited lecture. Mind & Life Summer Research Institute, Garrison, NY.
- (2010, June). The Neurobiology of Self-representational processes and representation during adolescence and early adulthood: Implications for Contemplative Education. Invited lecture. Mind & Life Summer Research Institute, Garrison, NY.
- (2010, July). <u>Sustainable Happiness: A dialogue between Science and Contemplative Wisdom</u>. A public dialogue with Tibetan Buddhist meditation master, Yongey Mingyur Rinpoche, **David R. Vago, PhD** and Robert Roeser, PhD, Portland, OR.
- (2010, November). Emerging Neurobiological Models for Mindfulness. Grand Rounds lecture. Center for Addiction Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA.

2011

- (2011, January). <u>Neurobiological Models for Mindfulness</u>. Invited lecture. Metro-Area Research Group, New York University.
- (2011, April). Mechanisms of Mindfulness in the context of self-awareness and self-regulation. Invited lecture. In Workshop on Meditation and Brain Imaging, Depression Clinical Research Program, Boston, MA.
- (2011, May). The Neurobiology of Self: Helping to Understand the Meditative Mind. Invited lecture. In Meditation & Psychotherapy: Helping Our Patients, Helping Ourselves, Harvard Medical School, Department of Continuing Education, offered by Department of Psychiatry, Cambridge Health Alliance Physicians Organization.
- (2011, May). Mechanisms of Mindfulness in the context of Self Awareness and Self Regulation. Invited lecture. The Trauma Center, Justice Resource Institute.

2012

- (2012, June). The Emerging Science of Mindfulness Meditation. Invited Podcast discussion. Buddhist Geeks Podcast, Boulder, CO.
- (2012, September). What is Mindfulness? How Can it Help Me? & How Does it Affect My Brain? Invited lecture. In Psychiatry Outpatient Clinic didactic session, Brigham & Women's Hospital, Boston, MA.

- (2013, April). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness. Invited lecture. Kripalu Center for Yoga and Health, Stockbridge, MA.
- (2013, August). Modalities of Awareness: Neuroscientific and Contemplative Perspectives. Invited Keynote
 presentation. Buddhist Geeks Conference, Boulder, CO.

- (2013, October). Mapping the Meditative Mind. Invited lecture. New Dialogues Between Buddhism and Science: Researching the Effects of Meditation and Compassion on Health and Wellbeing, Ligmincha Institute, Virginia.
- (2013, November). *Understanding the Science of Mindfulness*. Invited lecture. Harvard Pilgrim Healthcare, Boston, MA.

- (2014, March). <u>The Mogul: Russell Simmons and Cognitive Neuroscientist David Vago</u>. Invited dialogue. Rubin Museum, Brainwave Series, New York, NY.
- (2014, March). The Science of Mindfulness: How Mindfulness-based Meditation Practices Affect the Mind-Brain-Body. Harvard Development and Alumni Association, Harvard Yard, Cambridge, MA.
- (2014, April). Meditation: Connecting Your Brain and Your Health: What is meditation, How does it work, Does It Really Impact Health, Should I try it. Invited lecture. Brookline Public Library, Brookline, MA.
- (2014, May). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness. Invited lecture. Functional and Molecular Neuroimaging Salon, Brigham & Women's Hospital, Brain Research Institute, Boston, MA.
- (2014, August). Mindfulness: The Science of Settling the Mind for Optimum Health. Invited lecture. CVG Collaborative Medicine Conference (Medtronic), Newport, RI.
- (2014, October). The Neuroscience of Mindfulness & the Meditative Experience. Universal Church, Chelmsford, MA.
- (2014, November). Practical Neuroscience of Mindfulness for Therapists: Dialogue between a Brain Researcher and a Clinician. Invited lecture with Stefan Zora, MD, Private Practice Colloquium, Salem, MA, November, 2014
- (2014, November). The Neurobiology of Mindfulness and its Clinical Relevance. Invited lecture. Cambridge Hospital, Cambridge, MA.

2015

- (2015, March). The Science of Mindfulness. Invited lecture. Harvard Health Speaks, Center for Wellness, Harvard University, Cambridge, MA.
- (2015, March). Science on Screen: Free the Mind. Invited panel discussion. Real Art Ways, Hartford, CT.
- (2015, March). "Tantric Obsession", with Scott Carney, Rubin Museum, Brainwave Series, New York, NY.
- (2015, April). Mindfulness and Aging", Aging Successfully. Invited lecture. MIT, Cambridge, MA.
- (2015, April). The Importance of Relating to Self and Others in the Practice of Teaching and Learning. Invited lecture. Mind, Body, Being seminar, Harvard School of Education, Cambridge, MA.
- (2015, September). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness. Invited lecture. Brigham & Women's Hospital, Research Initiatives Meeting, Department of Psychiatry, Boston, MA.
- (2015, October). Research on Meditation and its Clinical Applications. Invited lecture. Mind-Body Medicine, Harvard Medical School elective course.
- (2015, October). Mindfulness Programs: Fad or Way of the Future. Invited lecture and panel discussion. U.S. Institute HR Director's Forum, Boston, MA.
- (2015, November). Fatigue and Depression & Mindfulness with Multiple Sclerosis. Invited lecture. Cure Fund, National Patient Education Program with Tarun Singhal, MD, North Attleboro, MA.
- (2015, November). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness. Invited lecture. Institute for Noetic Sciences, Future of Meditation Research, Petaluma, CA.
- (2015, December). Mindfulness: Contextualizing it and the Underlying Neurobiology. Invited lecture. Harvard College Health Advocacy Program, Cambridge, MA.

2016

- (2016, January). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness Across the Spectrum of Expertise. Invited lecture. Osher Center for Integrative Medicine, Vanderbilt University, Nashville, TN.
- (2016, February). The Neurobiology of Mindfulness and its Clinical Relevance. Invited lecture with Sonia Matwin, PhD. Cambridge Hospital, Cambridge, MA.
- (2016, March). Now and Zen: How Mindfulness Can Change Your Brain and Improve Your Health. Invited lecture. Harvard Medical School Longwood Seminars, Boston, MA.
- (2016, April). Mapping the Meditative Mind: Exploring the Neural Substrates of Mindful Awareness Across the Spectrum of Expertise. Invited lecture. Mindfulness TN, Knoxville, TN.
- (2016, October). Neurobiology of Yoga. Invited lecture, [online course]. yogamedicine.com.
- (2016, November). Neurobiology of Mindfulness & Its Clinical Implications. Invited Grand Rounds. Department of Physical Medicine & Rehabilitation Grand Rounds, Vanderbilt University Medical Center, Nashville, TN.
- (2016, November). Short- and Long-term effects of Meditation Practice on the Brain. Invited lecture series. Sivananda Yoga Retreat Center, Bahamas.

- (2017, January). The Science of Mindfulness. Invited lecture. Mindwell-U [online webinar].
- (2017, February). Mapping the Meditative Mind Neural substrates for Modalities of Awareness. Invited lecture. Vanderbilt Institute for Imaging Science Seminar, Nashville, TN.
- (2017, March). Targeting the Self in the Brain through Mindfulness-based Meditation. Invited lecture. Vanderbilt Volunteer Services, Nashville, TN.
- (2017, March). Self-Transformation through Mindfulness. Invited presentation. <u>Ted-X, Nashville</u>, Nashville, TN.

- (2017, April). A Science of Mindfulness and its Clinical Relevance. Invited lecture. Professional Development in Mindfulness Facilitation, Osher Center for Integrative Medicine, Vanderbilt University, Nashville, TN.
- (2017, May). Mindfulness Research: Past, Present, and Future. Invited Keynote lecture. In MindfulnessTN symposium, Knoxville, TN.
- (2017, July). Transforming the Self Through Mindfulness. Invited Keynote lecture. School for Science and Math at Vanderbilt, Nashville, TN.
- (2017, November). Cultivating Gratitude: Buddhadharma to Contemporary Mindfulness. Invited lecture series. Sivananda Yoga Retreat Center, Bahamas.
- (2017, November). Neurobiology of Gratitude and Prosocial Behavior. Invited lecture series. Sivananda Yoga Retreat Center, Bahamas.
- (2017, November). Cultivating Gratitude: Buddhadharma to Contemporary Mindfulness. Invited lecture series. Sivananda Yoga Retreat Center, Bahamas.
- (2017, November). Dissolving the Self for Sustainable Well-being. Invited lecture series. Sivananda Yoga Retreat Center, Bahamas.
- (2017, December). Navigating Academic Life Mindfully: Science and Practice. Invited lecture. Graduate programs in Biomedical Sciences, Vanderbilt University, Nashville, TN.
- (2017, December). Mapping the Meditative Mind: Neural Substrates for Modalities of Awareness. Invited lecture. Vanderbilt Brain Institute, Neuroscience Seminar Series, Vanderbilt University, Nashville, TN.

- (2018, February). Neuroscience of Mindfulness and its Clinical Relevance. Invited lecture. Vanderbilt School of Nursing, Vanderbilt University Medical Center, Nashville, TN.
- (2018, March). Mapping the Meditative Mind: Neural Substrates for Modalities of Awareness. Invited lecture. Molecular Mind Laboratory (MoMiLab), Lucca, IT.
- (2018, April). Mindfulness: The Current Science and Relevance in Clinical, Education, and Corporate Settings. Invited Keynote lecture. Center for Mindful Living, Knoxville, TN.
- (2018, April). Mindfulness in Leadership: Better leadership through a mindfulness-based orientation towards wellness. Invited lecture. Vanderbilt Leadership Academy, Vanderbilt University, Nashville, TN.
- (2018, May). Mindfulness: Science and Practice. Invited lecture. Vanderbilt Pediatric ICU, VUMC, Nashville, TN.
- (2018, September & October). The Science of Mindfulness: The Current State of the Field. Invited lecture series. Part I and Part II, Professional Development in Mindfulness Facilitation Course, Osher Center for Integrative Medicine, Nashville, TN.
- (2018, November). Neurophysiological Correlates of Meditative Practice in Normal and Clinical Populations. Invited lecture. Vanderbilt University, Department of Psychology, Clinical Brown Bag Series, Nashville, TN.

2019

- (2019, January). Meditative Practice: Neurophysiological Correlates and Clinical Relevance. Invited lecture. Department of Psychology, Northwestern University, Chicago, IL.
- (2019, January). Mapping the Meditative Mind. Invited lecture. Mind Body Medicine Day, Osher Center for Integrative Medicine, Northwestern University Medical Center, Chicago, IL.
- (2019, April). Mapping the Meditative Mind: From Clinical Outcomes to Unified Compassion. Invited lecture. <u>University of Virginia Contemplative Sciences Center</u>, Charlottesville, VA.
- (2019, April). From Body Awareness to Unified Compassion: Neurophysiology supporting Meditative States and Stages. Invited lecture. Body, Breath & Mind: A Symposium on the Contemplative Sciences, Ligmincha Retreat Center, Virginia.
- (2019, June). The Neuroscience of Self-Transformation: Incorporating Mindfulness into the Fabric of Society. Invited lecture. [Online presentation]. Forum of Living Cities, Moscow, Russia.
- (2019, July). Mechanisms of Mindfulness: What do We Know? And Where Do We Go?. Invited lecture, UCSD Center for Mindfulness, San Diego, CA.
- (2019, August). Self-regulatory Mechanisms of Mindfulness: Mental and Physical Health Implications. Invited Grand Rounds. Vanderbilt University Medical Center, Department of Physical Medicine and Rehabilitation, Nashville, TN.
- (2019, September). Mind and Body Practices for Integrative Health: Science and Practice. Invited keynote lecture. American Academy of Insurance Medicine, Nashville, TN.
- (2019, October). Meditative Practice: Neurophysiological Correlates and Clinical Relevance. Invited Grand Rounds. University of Kentucky, Department of Psychiatry, Louisville, KY.
- (2019, October). Mapping the Meditative Mind. Invited lectures series [3-day workshop]. Sivananda Yoga Center, Bahamas.

2020

• (2020, March). Neurobiological and Psychosocial Mechanisms of Mindfulness: From the Monastery to the Classroom – A Developmental Perspective. Invited lecture [cancelled due to COVID-19 risk]. Banff International Conference on Behavioral Science, Calgary, Canada.

- (2020, March). Long-term 25-year Retrospective Follow-up of a Mindful Classroom: Cognitive, Psychosocial, and Qualitative Changes. Invited lecture [cancelled due to COVID-19 risk]. Banff International Conference on Behavioral Science, Calgary, Canada.
- (2020, April). From Body Awareness to Unified Compassion: Neurophysiology supporting Meditative States and Stages. Invited lecture [cancelled due to COVID-19 risk]. Body, Breath & Mind: A Symposium on the Contemplative Sciences, Ligmincha Retreat Center, Virginia.
- (2020, April). Mapping the Meditative Mind (M3): Neural Mechanisms and Clinical Relevance. Invited Keynote lecture [Online]. USC Mindfulness Program, Keck School of Medicine, Los Angeles, CA.
- (2020, May). The Science of Self-Transformation. Invited interview [Online]. The Mindful Living Collective with Elisha Goldstein.
- (2020, July). From Body Awareness to Unified Compassion: Neurophysiology supporting Meditative States and Stages. Invited lecture [Online]. Tibet House Occupy the Present with Embodied Mindfulness.
- (2020, July). The Science of Meditation. [Online]. Roundglass
- (2020, August). The Mental Health Impact of COVID: [Online]. A Panel Discussion with Yogi, Mystic and visionary, Sadhguru
- (2020, October). Mindfulness and Meditation. [Online]. A Podcast for Brainshape.ca.
- (2020, October). <u>Ligmincha Serenity Ridge Dialogues:</u> A live online summit with Tenzin Wangyal Rinpoche, Mingyur Rinpoche, Deepak Chopra, and guests. Moderator.
- (2020, October). Neurobiological and Psychosocial Mechanisms of Mindfulness: Clinical Applications. [Online]. Resiliency Seminar Series Lecture. University of New England College of Osteopathic Medicine.
- (2020, November). Self-Awareness in Integrative Health: Science and Benefits of Mindfulness and Compassion. [Online]. Future of Wellness.

- (2021, May). Science and Practice of Meditation. Benevolent, Inc., Nashville, TN.
- (2021, June). Mindfulness and Compassion for Reducing Social Threat: Behavioral and Event-related potential (ERP) Evidence by which Mindfulness and Compassion Training May Reduce Anxiety Through Targeting Threat-related Attentional Bias [Online]. Mindfulness & Compassion Speaker Series. UC San Diego, Sanford Institute for Empathy and Compassion.
- (2021, June). Mysteries of Moon & Mind: Dr. Horacio de la Iglesia & Dr. David R. Vago Explore with Sadhguru. [Online]
- (2021, July). "What works in wellness?". [Online]. 36th Annual National MD-PhD Student Conference. UC Boulder, Boulder, CO
- (2021, September). Meditation Roundtable Discussion. Alternative and Complementary Therapies Journal. Integrative Medicine physicians and practitioners. [Online]
- (2021, September). The Current Science of Mindfulness-based Interventions. Mindful Society Global Institute. [Online]
- (2021, October). Addressing Burnout for the RD: Cultivating Resilience through Compassion and Mindful Self-Care. Academy of Nutrition and Dietetics Annual Food and Nutrition Conference. New Orleans, LA.
- (2021, October) "Serenity Ridge Dialogues: A free online summit with Tenzin Wangyal Rinpoche and Guests". [Online]

- (2022, February). Self-transformation through Systematic Training of Mind: Brain Network Integration. With Tenzin Wangyal Rinpoche and guests. [Online].
- (2022, February). Self-Transcendence: Dissolving Pain, Overcoming Addiction. With Tenzin Wangyal Rinpoche and guests. [Online].
- (2022, March). Self-Transcendence through Meditation and Psychedelics: Neural Correlates Supporting Self-Transformation. Soteric. [Online].
- (2022, April). Body Awareness and Trauma: Healing through Mind-Body practice. With Tenzin Wangyal Rinpoche and guests. [Online].
- (2022, April). Science of Healing Course. Consciousness and Healing Initiative. [Online].
- (2022, May). The Neuroscience of Mindfulness: Evidence Supporting Mindfulness in the Workplace. Disability: IN North Carolina. [Online].
- (2022, April). Self-Transcendence: How to Experience Personal Growth and Awakening Through Meditation and Meta-awareness. Passion Struck Podcast with John Miles. [Online].
- (2022, September). Mindfulness, Music, Non-duality, and Entrainment. Spatial Inc. [Online].
- (2022, October). The philosophy of meditation. Podcast with Rick Repetti
- (2022, October). Flow states and Meta-awareness. The Contemplative Science Podcast [Online].
- (2022, December). Meditation and the Brain. With Tenzin Wangyal Rinpoche and guests. [Online].

- (2023, February). The Affective Neuroscience of Prosocial Development & Behavior: Targeting Empathy & Compassion. Nalanda Institute for Contemplative Science [Online].
- (2023, February). Core Mindfulness Practices: The What & The How. Healthy Kitchens Healthy Lives. Culinary Institute of America; Harvard Chan School of Public Health. [Online].
- (2023, March). The Top 5 Impacts of Meditation on The Brain. U-Thrive Educational Services [Online].
- (2023, April). What, Who, and Where: The evidence-based context for Mindfulness Approaches. Inaugural Symposium for the Thich Nhat Hanh Center for Mindfulness in Public Health, Harvard Medical School. [Link]
- (2023, October). Transcending the Self: Decoding Non-dual States through Meditation and Psychedelics. BrainMind Summit, San Francisco, CA. [Link]

2024

- (2024, January) Art of Meditation Global Summit. [Link]
- (2024, February) How to Use Your Mind to Heal with Contemplative Neuroscience. State of MedTech Podcast [Link]
- (2024, March) Mental Health and Well-Being Global Summit 2024 [Online]
- (2024, April) Contemplative Neurosciences. Mind and Life Podcast [Link]

- (2025, January)The Art and Science of Awareness Webinar, Point32 Health The Cutting Edge Science [Link]
- (2025, January) Master Your Emotions By Controlling Your Thoughts Effectively; Passionstruck Podcast [Link]
- (2025, May) The Buddha, The Scientist'. Plum Village Retreat and Symposium, University of British Columbia, Vancouver, BC' [Link]
- (2025, June) Science, Mindfulness, and Meditation. Bhutan Meditation Conference. [Link]

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