

2023 Annual Report

**OSHER CENTER
FOR INTEGRATIVE HEALTH**





2023 Annual Report

Acknowledgments

With appreciation and in gratitude for
The Bernard Osher Foundation
without which our work would not be possible.

A message from our director

The complexities facing healthcare and society today motivate me to reflect deeply on leveraging our unique opportunities to effect positive change. How can we further our Osher Center’s mission to “advance ‘whole person health’ – encompassing mind, body, spirit, and community – through pioneering research, education, and clinical care”?

I am heartened by our many accomplishments this year. Our research continues to shape the field of Complementary and Integrative Health and I am pleased with the multiple new grants we secured from the National Institutes of Health (NIH) and private foundations. These grants address topics as diverse as Artificial Intelligence (AI) and wearable sensors for fall prevention strategies in older adults, evaluating virtual mind-body programs to manage heart and lung disease, and testing multimodal non-pharmacological interventions for chronic pain. Our Osher competitive Pilot Research Awards seeded new collaborations to address group medical visits to prevent frailty in older adults and neurobiological links between nature exposure and loneliness. We also supported research on teaching kitchens to improve cardiovascular health in underserved populations and mobile complementary and integrative health programs to manage health and enhance dignity among Boston’s homeless communities.

Our Osher Center’s education programs are thriving. Our monthly Grand Rounds reached 28% more viewers than in 2022, and we hosted high-quality talks by renowned leaders. We held Osher’s inaugural international conference on The Science of Tai Chi & Qigong as Whole Person Health: Advancing the Integration of Mind-Body Practices in Contemporary Healthcare. Supportive feedback from ~300 participants representing 13 countries reminded me that our Center plays a key role in stewarding the global mind-body community. Our NIH-funded Research Training Fellowship in Integrative Medicine was renewed with a perfect score, securing five more years of support, and our current cohort of highly bright and productive fellows, including naturopaths, chiropractors, and psychologists, give me hope for the next generation of integrative health clinician-researchers.

We are thrilled to have recruited a new Medical Director for our clinic, Dr. Darshan Mehta. Dr. Mehta, who also serves as Osher’s Education Director, is well-positioned to work closely with the Osher Clinic team and broader Osher leadership to deliver novel clinical initiatives that match the often complex needs of our patients.

We continue to adapt our priorities to emerging opportunities and challenges. Our program linking integrative medicine and planetary health made significant strides, including invited speaker engagements at international conferences and new strategic partnership development. And the unique opportunities afforded by emerging technologies such as wearables and AI, led us to recruit former Osher Fellow, Dr. Andrew Ahn, to serve as Core Leader, Leveraging Technology for Integrative Health. Dr. Ahn is taking a leading role in planning our 2024 Network Forum on the topic of technology and integrative health.

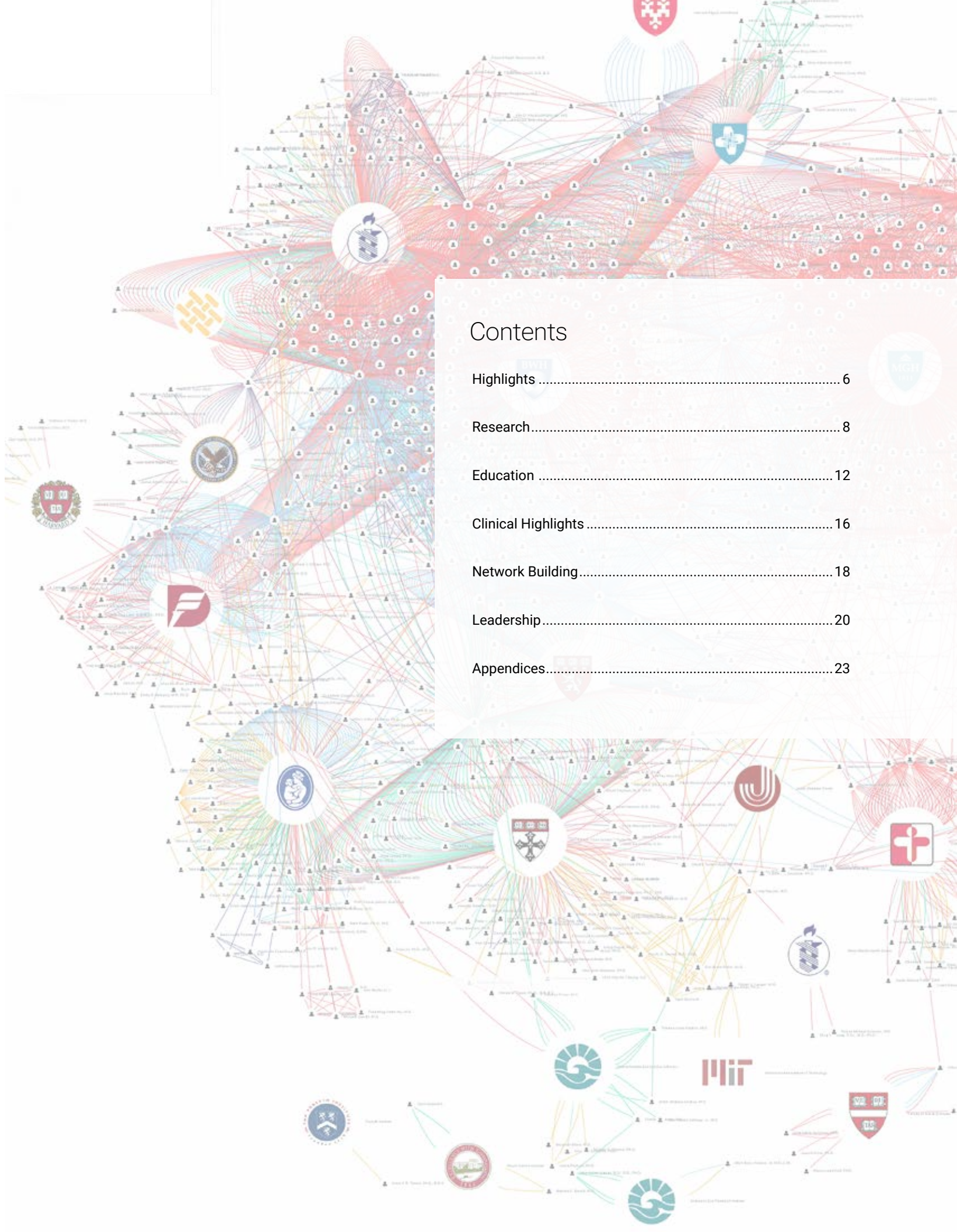
Finally, I sincerely thank the Bernard Osher Foundation and all other donors for their generous support. Their trust in our Center gives me great hope that we can achieve our vision of “a unified and integrated healthcare system that treats, heals, and empowers all people to lead their best lives on a healthy planet.”

With sincere wishes to all for health, peace, joy, and creativity in 2024.

Peter Wayne



Peter M. Wayne, Ph.D.
Bernard Osher Associate Professor of Medicine in the Field of Complementary and Integrative Health Therapies
Harvard Medical School
Director
Osher Center for Integrative Health
Brigham and Women’s Hospital and Harvard Medical School



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The Science of Tai Chi and Qigong as Whole-Person Health



In the fall of 2023, the Osher Center hosted the inaugural conference on the Science of Tai Chi and Qigong (TCQ) as Whole-Person Health in Boston, MA. This landmark event focused on Advancing the Integration of Mind-Body Practices in Contemporary Healthcare. It brought together 300 international delegates of diverse academic backgrounds from over a dozen countries. Main plenary sessions explored 1) the current state of the science, 2) how TCQ fit in a whole-person health framework, 3) the potential of integrating TCQ into the US Veterans Affairs healthcare system, and 4) cutting edge science around human biofields and the concept of 'Qi.'

Dr. Helene Langevin, former Osher director and director of the National Institutes of Health (NIH) National Center for Complementary and Integrative Health (NCCIH) delivered the keynote address and the conference was generously supported by the Osher Foundation, the VanSloun Foundation and grants from the NIH (see Education section for more details).



"As a practitioner and instructor, seeing the scientific research and evidence of what I have experiential knowledge was very enlightening."

"There's often a palpable divide between attendees and those leading sessions at many conferences, but this event was refreshingly different. It felt like everyone — whether a leading scholar or an emerging practitioner — had a shared goal: to advance the understanding and application of Tai Chi and Qigong in holistic health."

"Michael Levin's presentation [on regenerative medicine] was life altering!"

Osher Collaborative Participation

Dr. Gloria Yeh served as a longitudinal academic mentor in the 2023-2024 Osher Collaborative Fellowship Program which guides faculty fellows in the conduct of scholarly projects, including research and educational initiatives, as well as clinical program development.

The Osher Clinical Center hosted Dr. Louise Aronson from UCSF as part of The Osher Collaborative Exchange Program, funded by the Lunder Foundation. Dr. Aronson delivered a Grand Rounds on Healthy Aging and worked with OCC, geriatrician, Julia Loewenthal on setting up a medical group visit program called 'Age Self Care.' A research version of this program ran fall 2023-winter 2024 and the first clinical program will be launching summer 2024.

Dr. Darshan Mehta joined Osher Collaborative colleagues from across five Osher Centers for an education meeting supported by the Osher Collaborative Exchange Program. The two-day gathering following the



Osher Annual meeting focused on creating an equity tool specific to Integrative Health education.

Dr. Peter Wayne led the live 'Tai Chi for Healthy Aging' as part of the Osher Collaborative's inaugural Virtual Symposium on Healthy Aging in the fall of 2023, and lectured to Osher Collaborative Fellows on mind-body practices.

Drs. Peter Wayne, Darshan Mehta, Matthew Kowalski and Ms. Aterah Nusrat continued to actively engage and play leadership roles in Collaborative wide committees, ranging from the Osher Collaborative Steering Committee, and Research, Clinical, Fellowship, Administrative and Planetary Health Working Groups.

Aterah Nusrat, along with colleagues from two other Osher Centers, spearheaded the Osher Collaborative Planetary Health Working Group's first publication in the Journal of Integrative and Complementary Medicine (JICM).

Developing and Diversifying our Leadership Team

New Core Technology Lead



This year, **Dr. Andrew Ahn** joined our leadership team as a Core Leader, to leverage technology for integrative health. As a former Harvard Medical School Osher Fellow, Dr.

Ahn connects extensive experience leveraging technology to advance whole person, integrative approaches for optimal health. His research career began evaluating physiological mechanisms of acupuncture, then progressed to translating signal processing expertise by serving as Associate Director for Beth Israel Deaconess Medical Center's Center for Dynamical Biomarkers. In this capacity, Dr. Ahn was Lead Medical Advisor for team Dynamical Biomarkers in the prestigious \$10 million Qualcomm Tricorder XPRIZE competition, earning runner-up status out of 300 international entries for their diagnostic wearable device concept.

Most recently as Chief Medical Officer of Labfront, Dr. Ahn helps build an affordable, HIPAA-compliant platform enabling researchers to integrate continuous physiological measurements with survey data analytics. Applying methodologies from machine learning to wearable sensors, he now leads our 'High-Tech Soft-Touch Integration' Initiative. This role entails working with Osher fellows and faculty to investigate underexplored physiological pathways, integrate digital technology into clinical projects, incorporate novel data analytical

methodologies, and explore potential AI tools in both research and clinical settings.

New Medical Director



Dr. Darshan Mehta was appointed the new Medical Director for the Osher Clinical Center in June, 2023. Dr. Mehta has worked closely with former director Dr. Donald Levy for the past decade.

This continuation of clinic leadership bodes well for our future as Dr. Levy steps down from his leadership role of over 20 years at the helm. Dr. Mehta will be working alongside Drs. Matthew Kowalski, Associate Clinical Director and Peter Wayne, Osher Center Director, in resetting a high-level vision for the clinic.

Research Fellowship Milestones

Our NIH-funded post-doctoral research fellowship in integrative medicine (T32), running for 24 years, continues to be the longest standing training program in integrative medicine research in the United States. In 2023, the fellowship successfully received competitive renewal funding for 5 more years from the NCCIH with a perfect score of 10.

This past year we brought on our first naturopathic post-doctoral research fellow, Sarah Park, ND. Her research focuses on the role of nutrition and dietary supplements in the prevention of aging-related chronic diseases.

2023 NIH grant success



1) R01 (NCCIH; 2023-2025):

Chiropractic Care for Episodic Migraine (Wayne, Rist)

2) R01 (NCCIH; 2023-2028):

Mindful Steps: A Web-Based Mind-Body Exercise Intervention to Promote Physical Activity in Chronic Cardiopulmonary Disease (Yeh)

3) R01 (NCCIH; 2023-2027):

Using Instrumented Everyday Gait to Predict Falls in Older Adults using the WHS Cohort (Wayne)

4) K24 (NCCIH; 2023-2028):

Mentoring and Patient-Oriented Research in Mind-Body Exercise (Yeh)

5) R24 (NIA; 2023-2024):

Pilot of a Brief Cognitive Behavioral Therapy Intervention to Enhance Benzodiazepine Deprescribing (C-STARS) US Deprescribing Research Network (USDEN), funded through NIH National Institute for Aging (Yeh)

6) R13 (NCCIH; 2023-2024):

Tai Chi and Qigong as Whole Person Health: Advancing the Integration of Mind-Body Practices in Contemporary Healthcare (Wayne)

In 2023, our Osher Research faculty and their teams had a highly productive year. Their robust portfolio of active studies includes 40 studies funded by the National Institutes of Health and an additional 22 funded by foundations or philanthropy. Here we highlight selected studies from our research portfolio in 2023.



Effect of cocoa extract and multivitamin supplements on cognition

Teaching kitchens to improve health outcomes

We have developed important collaborations to jumpstart planning for an important research initiative centering around the use of hands-on teaching kitchens to improve culinary skills, nutrition education, dietary patterns, and health outcomes such as blood pressure, with a particular focus on underserved populations. To further catalyze behavior change and self-efficacy, mindful movement will also be integrated into this novel intervention approach to leverage our broader Osher research expertise. Dr. Sarah Park, a new Osher Fellow in Integrative Medicine, will help spearhead this initiative working with Drs. Sesso, Yeh, Wayne, Ahn, and others.



Sarah Park, ND



Promising findings continue to emerge from the COcocoa Supplement and Multivitamin Outcomes Study (COSMOS), led by Dr. Howard Sesso, Osher's Director of Nutrition and Supplements Research, and Dr. JoAnn Manson at the Division of Preventive Medicine. Dr. Sesso and colleagues examined the effects of the cocoa extract and multivitamin interventions on changes in web-assessed cognition in more than 3,500 older adults in collaboration with Columbia University. Overall, those taking cocoa extract versus placebo did not improve the prespecified cognitive outcome at 1 year follow-up, or across all 3 years of follow-up. However, baseline nutritional status may matter for understanding the cognitive effects of the cocoa extract intervention. Those with comparatively lower levels of dietary flavanol intake (obtained through consumption of cocoa, tea, berries, grapes, and other foods) may have



greater cognitive benefits from a cocoa extract supplement, with memory scores increasing by an average of 10.5%.¹ In a separate paper, those assigned to the multivitamin group did significantly better versus the placebo group on the web-based memory tests at 1 year with these benefits maintained across all 3 years of follow-up.² These findings suggested that the multivitamin intervention improved memory performance by the equivalent of 3.1 years compared to the placebo group. These studies highlight the need to understand the mechanisms that cocoa and a daily multivitamin may protect against memory loss and cognitive decline, and whether specific subgroups based on nutritional status may benefit more, or less.

1. Brickman AM, Yeung LK, Sesso HD, et al. Dietary flavanols restore hippocampal-dependent memory in older adults with lower diet quality and habitual flavanol consumption. *Proc Natl Acad Sci.* 2023;120(23):e2216932120.

2. Yeung LK, Alschuler DM, Sesso HD, et al. Multivitamin supplementation improves memory in older adults: a randomized clinical trial. *Am J Clin Nutr.* 2023;S0002-9165(23)48904-6.



Multimodal interventions for managing chronic pain.

Studying and deploying the use of multimodal complementary and integrative therapies for the treatment of chronic pain continues to be a primary area of focus for our Osher Center.

With funding support from the Inter-Institutional Network for Chiropractic Research, our team completed a pilot study evaluating the combined use of chiropractic care and Tai Chi for nurses with chronic nonspecific neck pain (CNNP). Of note, up to 45% of nurses report experiencing work-related neck pain, which in addition to causing physical and emotional discomfort, negatively impacts on job satisfaction, absenteeism, productivity, and attrition from the workforce.

Findings from this preliminary study support that delivery of combined chiropractic and mind-body self-care is feasible for nurses and may positively impact neck pain and disability. Qualitative findings shed unique insights into the culture of neck pain in nurses, suggesting nurses ‘accept that neck pain is integral to nursing’, that they ‘typically push through the pain’, and that benefits from our multimodal approach include ‘increased body awareness and improved posture’.

Findings were presented at the International Congress on Integrative Medicine and Health, are currently under peer review, and have informed the design of a newly funded NIH study evaluating the benefits of combined chiropractic care and Tai Chi for CNNP in the general population. A systematic review and meta-analysis led by Osher Fellow Wren Burton

Up To 45% of Nurses Report Experiencing Work-Related Neck Pain

further highlights how CNNP can impact multiple dimensions of health, including gait and balance parameters that predict falls.¹ Another related retrospective cohort study of more than 770,000 patients with neck pain, conducted in partnership with Yale University School of Medicine and the Center for Healthcare Policy and Research, University of California, Davis, reported that patients treated initially by chiropractors or physical therapists, in comparison to emergency physicians, orthopedists, or neurologists, received fewer and less costly imaging services and were less likely to receive invasive therapeutic interventions during follow-up.²

Work in partnership with colleagues at U Mass Boston also extends our study of mind-body practices for chronic pain. A narrative review concluded that Tai Chi relieves pain symptoms, improves cognition, and lowers risk for falls in older adults, and thus may be particularly beneficial for older adults with multisite pain syndrome.³ A parallel planning study focusing on racially diverse older adults with multisite pain and increased fall risk concluded that remote Tai Chi training delivered via live Zoom sessions was safe and feasible.⁴ These findings have informed a new NIH grant submission to support more definitive multi-site trial.

Finally, junior faculty Dennis Munoz-Vergara continues to explore basic physiological processes that may underlie the therapeutic potential for mind-body practices in chronic pain conditions.^{5,6}

1. Burton W, Ma Y, Manor B, Hausdorff JM, Kowalski MH, Bain PA, Wayne PM. The impact of neck pain on gait health: a systematic review and meta-analysis. BMC Musculoskeletal Disord. 2023;24(1):618.
2. Fenton JJ, Fang SY, Ray M, Kennedy J, Padilla K, Amundson R, Elton D, Haldeman S, Lisi AJ, Sico J, Wayne PM, Romano PS. Longitudinal care patterns and utilization among patients with new-onset neck pain by initial provider specialty. Spine. 2023;48(20):1409-1418. 3. You T, Leveille SG, Yeh GY, Wayne PM. Is Tai Chi beneficial for multisite pain syndrome in older adults? Aging Clin Exp Res. 2023;35(7):1443-1448.
4. You T, Koren Y, Butts WJ, Moraes CA, Yeh GY, Wayne PM, Leveille SG. Pilot studies of recruitment and feasibility of remote Tai Chi in racially diverse older adults with multisite pain. Contemp Clin Trials. 2023;128:107164. 5. Berrueta L, Muñoz-Vergara D, Martin D, Thompson R, Sansbury BE, Spite M, Badger GJ, Langevin HM. Effect of stretching on inflammation in a subcutaneous carrageenan mouse model analyzed at single-cell resolution. J Cell Physiol. 2023;238(12):2778-2793. 6. Muñoz-Vergara D, Burton W, Bain P, Rist PM, Khalsa SBS, Schreiber KL, Wayne PM, Yeh GY. Understanding the dynamics of inflammatory mediators in response to mind-body movement therapies (MBMTs): A systematic review and meta-analysis of studies in healthy subjects. Brain Behavior Immunity Integrative 2023;2:100006.

Promoting Positive Behavior Change through Mind-Body Movement



Recommendations for physical activity and exercise are at the cornerstone for many health conditions including chronic cardiovascular and pulmonary diseases. Implementing and sustaining physical exercise is a universal challenge. Studies led by Dr. Gloria Yeh (Director of Clinical Research) are leveraging the promise of newer technologies such as wearables combined with older wisdom through mind-body therapies to help promote positive behavior change.

Mindful Steps multi-modal intervention

This year, our team continued to build on earlier developmental pilot work of the Mindful Steps multi-modal intervention that includes an educational and interactive website with a mindful movement video curriculum and live mind-body classes, plus a wearable step tracker with individualized step goals and feedback that promotes walking in patients with chronic heart failure (HF) and chronic obstructive pulmonary disease (COPD). Preliminary results suggested that those who participated in Mindful Steps increased their daily step counts after 12 months. Qualitative analyses highlighted the importance of mind-body exercises, breath and body awareness, mindful attention, exercise self-efficacy, and intrinsic motivation.¹

In 2023, Dr. Yeh was awarded a 5-year R01 grant from the NIH National Center for Complementary and Integrative Health to conduct a fully remote efficacy trial (Mindful Steps v2.0) with national recruitment in collaboration with the Boston Veterans Affairs Medical Center. In addition to this study, Dr. Yeh is currently extending this work in another funded VA-MERIT grant in collaboration with Dr. Marilyn Moy from the Boston VA, adding a virtual mind-body movement and Tai Chi classes to a similar web platform in the WATCH (Walking and Tai Chi) study to promote walking and improve functional status in patients with COPD and co-morbid chronic pain.²

1 Kraemer KM, Kilgore K, Litrownik D, Jean-Laurent B, Wayne PM, Richardson CR, Moy ML, Yeh GY. A web-based mind-body intervention (Mindful Steps) for promoting walking in chronic cardiopulmonary disease: Insights from a qualitative study. Glob Adv Integr Med Health. 2023; 12: 27536130231212169.
2 Kraemer KM, Litrownik D2, Wayne PM2, Richardson CR3, Kadri R4, Rist P2, Kilgore K5, Moy ML6, Yeh GY.1,2 A web-based mind-body Intervention (Mindful Steps) for promoting walking in chronic cardiopulmonary disease: A pilot RCT. Journal of Integrative and Complementary Medicine. 2023;A-28-A-48.



Weekly motivational messages on the Mindful Steps website support mindful movement and walking



Graphs show weekly progress toward individual algorithm-based step goals



2023 Conference: The Science of Tai Chi & Qigong as Whole-Person Health

On September 18-19, 2023, the Osher Center hosted the inaugural conference on the Science of Tai Chi and Qigong (TCQ) as Whole-Person Health in Boston, MA. This landmark event brought together researchers, practitioners, educators and policymakers from across the globe. Approximately 300 attendees, representing 37 US states and 12 countries, including China, Australia, Germany, Korea, Colombia and the UK, came together to dialogue on the current state of the scientific field of Tai Chi and Qigong and related mind-body practices.

This inaugural conference focused on Advancing the Integration of Mind-Body Practices in Contemporary Healthcare. Structured around plenary, concurrent and experiential sessions, and poster and oral abstracts, the gathering provided a rich context for attendees from diverse academic and personal backgrounds and experiences to network and learn from one another. The plenary sessions explored the following themes:

- 1) **Research:** Current state of the science in the field (including musculoskeletal pain, falls/mobility, cognitive function, mental health, cancer and cardiopulmonary health);
- 2) **Discussion:** How Tai Chi and Qigong fit within a whole person health framework;
- 3) **Case study:** How the field might move forward in the future with the integration of TCQ into the US Veterans Affairs healthcare system; and
- 4) **Exploration:** Leading-edge science around energy and Qi.

Plenary Topics

- Whole Person Health: Integration Across Physiological Systems
- State of the Science in Tai Chi & Qigong Research (Parts 1 & 2)
- Implementation of Mind-Body Practices in Contemporary Healthcare
- Explorations in Body Intelligence: Examples from Western and East Asian Medicine

Concurrent Session and Symposia Topics

- Listen to Your Body: Interoceptive Awareness of Breath, Body, and Movement, A Key Process in Tai Chi
- Virtual Tai Chi Delivery Symposia
- Supporting Well-being through the Integration of Qigong, the Arts, and Social Justice
- Getting Involved and Contributing to TCQ and Mind-body Scientific Research: Practical Guidance for Instructors
- Diverse Community TCQ Practices Symposia
- The Training and Credentialing of TCQ Instructors: Is There a Need for (Inter)national Guidelines?
- Qigong in the Treatment of Depressive Symptoms
- Women in Tai Chi: Past, Present, and Future

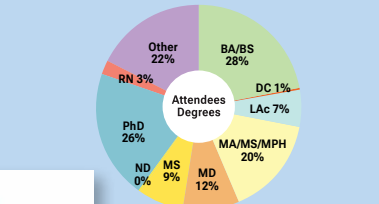
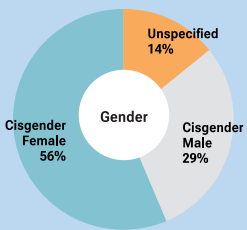
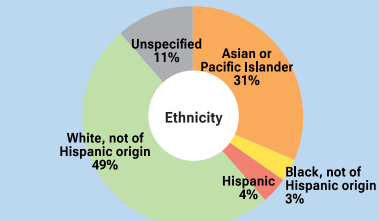
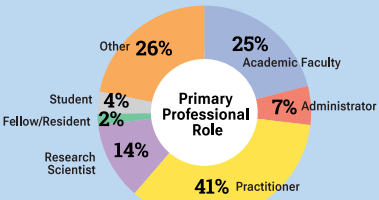
Attendee Demographics

300 Attendees, representing 37 US states and 12 countries.



Primary Discipline or Field

Acupuncture	18%
Allied Health Services	6%
Behavioral/Social Sciences	18%
Chiropractic/Chiropractic Medicine	2%
Massage Therapy	6%
Medicine (Allopathic and Osteopathic)	12%
Naturopathic Medicine	<1%
Nursing	3%
Nutrition	5%
Oriental Medicine	13%
Public Health	14%
Mind Body Medicine/Therapy	50%
Other	29%



Ahmed Tawakol
Mass General Hospital / Harvard Medical School

Chenchen Wang
Tufts Medicine

Janet Clark
Veterans Health Administration, Office of Patient Centered Care and Cultural Transformation Veterans Health Administration

Peter Wayne
Osher Center for Integrative Health, Brigham and Women's Hospital / Harvard Medical School

Andrew Ahn
Labfront + Osher Center for Integrative Health

Scientific Abstracts

- 16 oral presentations
- 42 poster presentations
- Scientific abstracts published in the Journal of Integrative and Complementary Medicine, December 2023.

William Tsang
Hong Kong Metropolitan University

Helen Lavretsky
UCLA

Gloria Yeh
Osher Center for Integrative Health, Beth Israel Deaconess Medical Center / Harvard Medical School

Fuzhong Li
Oregon Research Institute

Daniel Seitz
Daniel Seitz Consulting

Michael Levin
Tufts University

Jian Kong
MGH, Harvard Medical School

Brad Manor
Marcus Institute, Hebrew SeniorLife, Harvard Medical School

Byongsang Oh
University of Sydney

Helene Langevin
National Institutes of Health (NIH)

Michael Irwin
University of California Los Angeles



Training the Next Generation in Integrative Medicine Research and Leadership

Our NIH-funded post-doctoral research fellowship in integrative medicine (T32) continues to thrive. Established in 1999, it is the longest standing training program in integrative medicine research in the United States. In 2023, the fellowship successfully received competitive renewal funding from the NIH National Center for Complementary and Integrative Health with a perfect score of 10.

Our fellows-in-training, recent graduates and junior faculty are tackling leading edge research topics, and their work has led to multiple peer-reviewed publications and awards. Recent graduates have joined Harvard faculty, and earlier graduates of the Fellowship continue to have an important presence in integrative medicine leadership roles nationally. Fellows continue to come from diverse training backgrounds, including physicians, psychologists, neuroscientists, and complementary and integrative providers, including one of our first-year fellows who is a naturopathic physician. Meet our current research fellows and recent graduates:

T32 Fellows research topics include:

- Brain responses to meditation in patients with chronic pain
- Development of mindfulness interventions in special populations such as multiple sclerosis or alcohol use disorder and addictions
- Nutrition and teaching kitchen interventions in underserved communities
- Understanding the scientific basis for acupuncture points

Chiropractic Fellowship

Alongside our T32 Fellowship, we secured renewed funding from the NCMIC Foundation for a second chiropractic research fellow to start in July 2024. Our first chiropractic fellow will be completing her three-year training in June, 2024.

Research Fellows

Sarah Park, ND, is a 1st year T32 fellow. A naturopathic physician, her research focuses on the role of nutrition and dietary supplements in the prevention of aging-related chronic diseases, including major risk factors such as hypertension.

Rachel Rosen, PhD, is a 1st year T32 fellow. Her research focuses on the development, evaluation, and implementation of behavioral and mind-body interventions for tobacco use and co-occurring conditions.

Heena Manglani, PhD, is a 2nd year T32 fellow. She is developing and testing mind-body interventions in individuals with multiple sclerosis and their care partners, targeting whole health behaviors to improve physical, psychological, and cognitive function.

Joseph Rosansky, PhD, is a 2nd year T32 fellow. His work focuses on mindfulness-based and integrative approaches to treating addictive behaviors, including reducing alcohol consumption. He is also studying innovative, integrative approaches to population mental wellness.

James Doorley, PhD, is a 3rd year T32 year fellow. His research focuses on mind-body and psychologically-informed physical therapy for chronic pain and developing web-based mind-body interventions for pain to increase access in diverse, underserved populations.

Wren Burton, DC, is a 3rd year chiropractic fellow supported by a generous gift from the NCMIC Foundation. Dr. Burton's research focuses on the relationship between chronic musculoskeletal pain, mobility and fall risk, and the potential use of chiropractic care for fall prevention.

Recent Graduates and Junior Faculty

Michael Datko, PhD, graduated from the fellowship in 2023. His work examines the neurophysiology of multi-modal therapies, including vagal nerve stimulation and mindfulness meditation for chronic pain, and is helping to elucidate fundamental processes such interoceptive awareness.

Jacklyn Foley, PhD, graduated from the fellowship in 2023. Her research evaluates mindfulness and cardiovascular health among people living with HIV. Her work is supported by a Harvard University Center for AIDS Research (CFAR) Developmental Award.

EunMee Yang, PhD, MPH, MS, LICAC, graduated from the fellowship in 2022. She is a junior faculty member at the Osher Center. Her research focuses on understanding the biophysical properties of acupoints, using sophisticated measures of blood flow, skin temperature and pressure sensitivity, within the context of inflammatory bowel disease.

Yan Ma, PhD, graduated from the fellowship in 2021. She is now a junior faculty member at the Osher Center. Her research explores the use of non-linear physiological markers of heart and brain wave dynamics to characterize sleep quality, and how bedtime mind-body practices can improve sleep onset and quality in patients with insomnia.

Dennis Munoz-Vergara, VMD, PHD, MPH, graduated from the fellowship in 2021. He studies the impact of yoga-like stretching in both animal models and humans to understand the effect of mechanical forces on tissue remodeling, inflammation and its resolution.

Kristen Kraemer, PhD, graduated from the T32 program in 2020 and joined Beth Israel Deaconess Medical Center as a Harvard faculty member. She was awarded a K23 career development award from the National Institutes of Complementary and Integrative Health (NCCIH) to study components of mind-body exercise for physical activity engagement in metabolic syndrome.

Integrative Medicine Grand Rounds



Our monthly Integrative Medicine Grand Rounds series, now in its eighth year, continues to be well attended, with a 28% increase in 2023 compared to 2022. We hosted a range of research presentations and clinical cases from leaders in their respective fields. Examples

include Scott Halderman DC, on primary spine care, Ting Bao, MD on integrative healthcare for cancer related peripheral neuropathy, Christopher Lowry, PhD, on microbiome and mental health, and Louise Aronson, MD, on integrative care for healthy aging.

Annual Cogan Lecture: Healthy Social Connection

Attended live by 245 people, this year's online Cogan lecture featured Robert Waldinger, MD, from MGH. Based on his world-renowned TED Talk, titled "What makes a good life? Lessons from the longest study on happiness," Dr. Waldinger shared insights into the Harvard Study of Adult Development, one of



What makes a good life? Lessons from the longest study on happiness
-Dr. Waldinger

the longest-running studies on happiness and well-being. His research revealed that the key to a fulfilling and happy life lies in the importance of close, meaningful connections and their impact on physical and mental health for a more satisfying and contented life.

2023 Fellows' Grant Awards and Abstract Awards

Jacklyn Foley

Grant: K23 Mentored Patient-Oriented Research Career Development Award, NIH National Heart Lung Blood Institute

Yan Ma

Sleep and Circadian Science Scholar Award

Advances in Sleep and Circadian Science Conference, 2023 (FL) Sleep Research Society Foundation

Featured Presenter Award

Women in Medicine & Science Symposium, 2023 (MA) Brigham and Women's Hospital

Scientific Award

Science of Tai Chi & Qigong as Whole Person Health Conference, 2023 (MA) Osher Center for Integrative Health

Sarah Park

Ather Ali Scholarship Award

Academic Consortium for Integrative Medicine & Health, 2024

Scholarship Award

Trainee Scholarship, International Congress on Integrative Medicine & Health, 2024

Clinical and Research Mentorship



Dr. Mehta



Dr. Yeh



Dr. Sesso

Drs. Darshan Mehta and Gloria Yeh have been clinical and academic mentors for the Osher Collaborative Clinical Fellowship. This longitudinal role allowed meaningful participation in the fellowship experience by discussing clinical cases, guiding scholarly projects, and career counseling. In addition, Drs. Wayne and Kowalski participated as faculty for the Fellowship as content experts in their respective areas of expertise.

Dr. Sesso leads the Peer Mentoring Group for junior faculty at the Division of Preventive Medicine, including those from the Osher Center, providing career support for the development of new grants, new and ongoing data analyses and manuscripts, navigation of administrative and logistical aspects of research, and peer support for one another.

Dr. Sesso also mentors several masters and doctoral students at the Harvard T.H. Chan School of Public Health through his secondary appointment in the Department of Epidemiology, supporting the next generation of researchers with particular research and career interests in nutrition, epidemiology, and clinical trials.

TEDxMGH



This event occurred on September 22, 2023



Boston, Massachusetts United States

Dr. Darshan Mehta continues to lead a virtual TEDx speaker series he built in 2020, showcasing inspirational stories from the MGB community, including how people have handled challenges through innovation, resilience, vulnerability, and connection. These 10-12 minute stories by colleagues have covered far-reaching topics – from antiracism and social justice to climate change, laughter, coping with loss, COVID-19, and living and working with depression. Dr. Mehta has also been leading regular virtual meditation sessions for all MGB employees since 2020. Sessions include guest leaders from the MGB community—fostering diversity and inclusivity.

Osher Clinical Center Highlights

The interconnections between our clinic, educational, and research initiatives continue to grow and solidify. During the past year, the Osher Clinical Center has hosted and played an integral role in several research initiatives, including investigations into the mechanisms of acupuncture, quantifying the influences of neck pain on gait, and screening and enrolling participants for a unique neck pain study. Internal Medicine residents and Neurology fellows are rotating through the clinic, and patient satisfaction ratings of our clinicians and clinic continue to exceed benchmarks as the culture of our clinic embraces caring for each other as we care for our patients.

Chiropractic Care at the Osher Clinic

Chiropractic care at the Osher Clinical Center continues to grow and is celebrating a new milestone for the clinic and chiropractic profession. Wren Burton, DC, MPH, became the first chiropractor to complete the MPH degree portion of the NCMIC Foundation, Inc. supported chiropractic-researcher fellowship. She will complete the clinical portion of her program in June of 2024 and join our staff of clinicians. In a more public context, Dr. Matos was the staff chiropractor for the US Fencing Team's 2023 annual tournament!



Wren Burton, DC, MPH

"I loved meeting Dr. Kowalski. He zoomed right in on what I needed and helped me feel confident from the start. I also really appreciated his collaboration with Dr. Levy. I finally feel like I'm getting the kind of integrated connective care that my whole body and all systems need. The collaboration among the specialists is just so incredible and what a patient really needs. I am just so thrilled."

My experience was exceptionally satisfying. The receptionist, Maria, clinic coordinator Holly, the medical assistants Nia and Lauren, and Dr. Wren Burton were all delightful, respectful, and professional. They are a most impressive team."

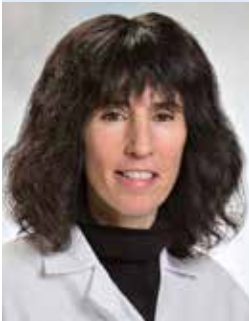
"I had a really positive experience at this office. I felt like I was treated with a lot of humanity, which isn't always the norm at medical appointments."

Recognizing our Clinical Leaders

In 2023, Dr. Levy was again named in Boston Magazine's "Top Doctors" for his 16th consecutive year. Dr. Carrie Bernstein was a 2023 recipient of the Distinguished Clinician Award at Brigham and Women's Hospital.



Donald Levy, MD



Carrie Bernstein, MD

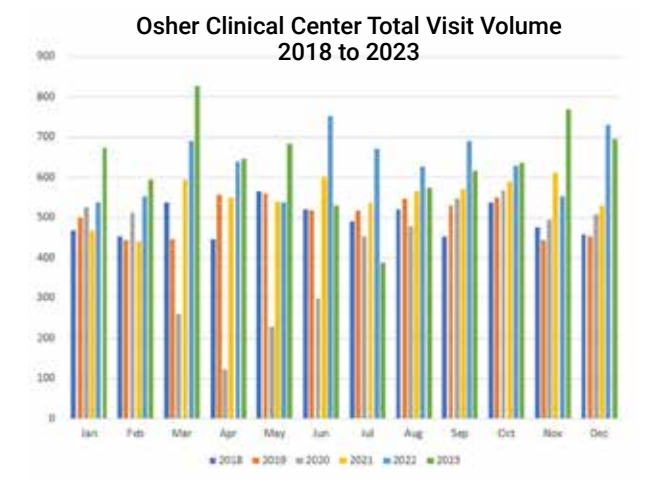
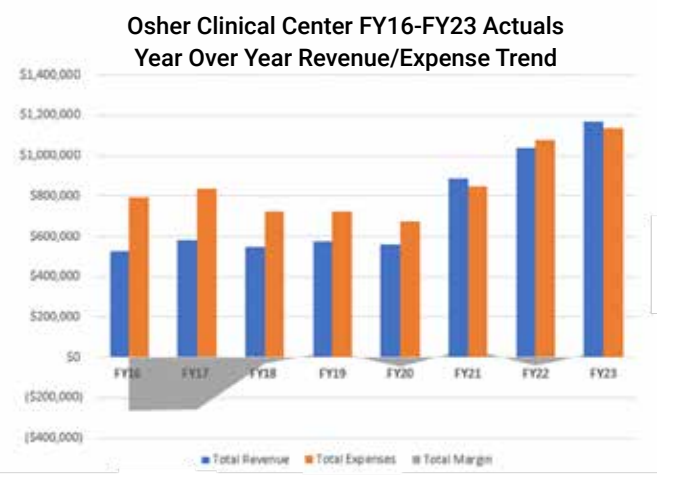
Our search for Dr. Levy's successor as Medical Director led us back to our home-grown team. We are happy to announce that Dr. Darshan Mehta accepted the role of Medical Director of the Osher Clinical Center on July 1, 2023, and will lead the initiative to engage further and embed the integrative health services at our center into the Mass General Brigham community. Dr. Mehta is also a committee member of the MGB Cancer Redesign team. He is committed to integrating our clinical services into the care of patients with this life-changing diagnosis to provide comfort and healing throughout their journey



Darshan Mehta, MD, MPH

"Dr. Loewenthal does an excellent job of working with the elderly who have complex medical problems. She has helped enormously in navigating the Mass General Brigham system while so many departments are short-staffed."

OCC Bill of Financial Health



In 2023, the Osher Clinical Center's revenue exceeded its expenses despite the total patient traffic of 7,642, slightly lower than in 2022. This decrease in patient traffic was related to a provider's leave of absence in mid-2023.

OCC Services Supporting Communities

Most of our integrative clinicians have been with the clinic since its inception. In 2023, we added to our team of acupuncturists and chiropractors and hired a massage therapist. Our new chiropractors have specialty interests and training, one in sports medicine and the other in caring for aging patients.



Jie Fan-Roche, PT, NCMT



Lyndsay Keach Bronstein, MS, RD, LDN

Dr. Mecke is the best and has saved my back completely! I am living a healthier, low-pain-to-none lifestyle thanks to him."

Engaging the OCC Community

We are always looking for new ways to connect with other hospital departments. In 2023, through a collaboration between the Osher Clinical Center and the Brigham and Women's Department of Rehabilitation Services, we began to offer a workshop series on "Pilates for patients with hypermobile bodies and Ehlers-Danlos Syndrome." Participants in this 6-week workshop appreciated remarkable functional improvements, and the group social support that extended beyond the duration of the course. We plan to offer the workshop again in 2024.

"Pilates feels do-able now. I understand why it's not worked for me in the past. I feel like I can do these exercises now on my own and in classes in the future."

"Dana and the community in class have really added to my quality of life. Attending classes was a bright spot in a dreary fall. What an incredible offering you provide!"

Regarding clinical education, through the support of the Lunder Exchange Program funded by the Lunder Foundation, Drs. Mehta and Kowalski joined members of the Osher Collaborative to learn best practices on the new learning management system for the Osher Collaborative fellowship. In addition, Dr. Mehta participated in a dialogue examining clinical fellowship competencies in integrative health through an inclusive health equity lens.

Strengthening and Stewarding the Integrative Medicine and Health Community through Our Center Without Walls

As a ‘Center Without Walls,’ one of our primary aims is to connect and strengthen the integrative medicine and health community across Harvard Medical School—and beyond. In 2023, we continued supporting innovative research through our Osher Pilot Research Grants, we delivered the inaugural Tai Chi and Qigong Conference (see education section) and strengthened connections and visibility through collaboration opportunities and our consistent online presence.

Pilot Research Grants

Since the Osher Pilot Research Grant program was launched in 2015, we have distributed \$1.35 million in seed funding to the HMS community with awardees leveraging these pilot funds to solicit \$2.97 million in subsequent awards. The program supports innovative, cross-disciplinary and collaborative projects in integrative medicine and health in the following domains:

- **The Science of Mind-Body Connections;**
 - **Clinical Effectiveness of Multimodal and Integrative Interventions;**
 - **Systems and Translational Biology in Integrative Medicine;**
- **Placebo and the Science of Human Connections;**
 - **Lifestyle, Nutrition and Dietary Supplements;**
 - **The Science of Human and Nature Connections.**

2015-2023 OSHER PILOT AWARDS

9 Rounds of annual funding

39 Pilot research projects supported

\$1,354,033 Awarded

SUBSEQUENT OUTCOMES:

21 Scientific Publications13 New Studies

20 Academic Presentations\$2.97M Leveraged

Institutional Collaborations supported

Beth Israel Deaconess Medical Center

McLean

Harvard ChanBio

Center for Mindfulness and Compassion

Brigham and Women's Hospital


Massachusetts General Hospital

Partners Healthcare, New General Hospital

David Farber

SPaulding

Notable outcomes from past Pilot Project Awards



Roberta Sclocco, PhD (2022: SRH)

Body Region-Specific Effects in the Neuromodulation of the Brain-Gut Axis in Functional Dyspepsia

Dept. Physical Medicine & Rehabilitation
Spaulding Rehabilitation Hospital

New Grant: NIH-NCCIH K01 5 years: \$676,208 (total award)

New Collaborations: Professor Ted Kaptchuk and Dr. Peter Wayne on K01



Elsye Park, PhD, MPH and Lucy Finkelstein-Fox, PhD (2022: MGH)

Developing an Integrative Mind-Body Intervention to Promote Sexual Well-Being of Female GI Cancer Survivors

Dept. Psychiatry
Massachusetts General Hospital

New Grant: American Cancer Society (ACS) career development award, 5 years (Finkelstein-Fox): (\$728,026 total award)

New Grant: R21 Supplement (\$165,574 total award)

New Collaborations: MGH (Cancer Center and Psychiatry) and DFCI (Psycho-Oncology and Palliative Care)



Michael Goldstein, PhD (2021: BIDMC)

Examining the interactive effects of mindfulness and slow-paced breathing on stress physiology

Beth Israel Deaconess Medical Center

Publication: Dismantling the Component-Specific Effects of Yogic Breathing: Feasibility of a Fully Remote Three-Arm RCT with Virtual Laboratory Visits and Wearable Physiology

Int. J. Environ. Res. Public Health 2023, 20(4), 3180

Abstracts Presentations


SLEEP 2022, 36th Annual meeting, Associated Professional Sleep Societies. Charlotte, NC, June 2022 (two abstracts).

20th Annual Sleep and Health Benefit Dinner Poster Session, Harvard Medical School, Boston, MA. October 2021 (virtual presentation).

“This Pilot Award was my very first grant, and in addition to the significant role it played in generating data for my K01, I believe it was also instrumental for my promotion from Instructor to Assistant Professor at the end of 2022.”

- Roberto Sclocco, PhD

2022 Pilot Awards



Zev Schuman-Olivier, MD

Cambridge Health Alliance, Center for Mindfulness Compassion

“Exploring the Feasibility and Acceptability of Brief Mindfulness Training with Respiratory-Gated Vagus Nerve Stimulation for Reducing Alcohol Consumption Among Young Adults”



Julia Loewenthal, MD

Div. Aging, Brigham and Women's Hospital

“AGE SELF CARE: Promoting Healthy Aging through Implementation of a Group Visit Program”



Michael Ferguson, PhD

Dept. Neurology, Center for Brain Circuit Therapeutics

Brigham and Women's Hospital

“Reducing loneliness through biophilia and compassion”

Co-sponsorships and Collaborations

“Consciousness, Science, Spirituality, and Social Impact”



In October 2023, reflecting the Osher Center’s new and growing program area connecting integrative medicine with planetary health, Dr. Peter Wayne and Ms. Aterah Nusrat, who leads our planetary health programming efforts, presented in the closing panel of the inaugural “Consciousness, Science, Spirituality, and Social Impact” conference hosted by the BIDMC Sadhguru Center for a Conscious Planet at Harvard Medical School. Dr. Wayne moderated the panel on “Science and Spirituality on a Conscious Planet” and Ms. Nusrat joined esteemed panelists including world-renowned spiritual teacher and social activist, Sadhguru, microbiome expert, Dr. Emeran Myer from UCLA and former Osher Center director, and director of the NIH National Center for Complementary and Integrative Health, Dr. Helene Langevin.

HMS Distinguished Lecture in Mind Body Research and Health

In June of 2021, the Osher Center, the Benson-Henry Institute for Mind Body Medicine (BHI) and the Center for Mindfulness and Compassion (CMC) at the Cambridge Health Alliance (CHA) launched this rotating annual lecture series to showcase excellence and innovation in mind body research and health. The Osher Center hosted the 2023 online lecture with Evan Thompson, PhD, Professor of Philosophy at the University of British Columbia, Vancouver. Over 200 attendees joined live to hear Dr. Thompson’s lecture on “Enacting Mindfulness: A View from Cognitive Science.”



Evan Thompson, PhD



Cambridge Health Alliance



BENSON-HENRY INSTITUTE FOR MIND BODY MEDICINE AT MASSACHUSETTS GENERAL HOSPITAL



HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

Center for Mindfulness and Compassion

In 2023, we began planning our sixth biennial Network Forum for the fall of 2024:

Intersecting High-Tech Medicine with Soft-Touch Healing: Exploring the Emerging Interface between Technology and Integrative Health.

In response to emerging and novel applications of digital technology and AI applications in the healthcare industry, the Osher Center will host this conference to foster much-needed dialogue on how technology influences and impacts integrative health on many levels – from diagnostics, analysis of disease, and therapeutics to translational research, clinical care, and disparities. We will bring together researchers, clinicians, technologists, ethicists, traditional integrative health scholars, administrators, and policymakers to exchange insights on current projects and future possibilities and discuss the opportunities and challenges in applying technology to enhance integrative health practices.

Online Presence

We reach our online integrative medicine and health community through our OsherCenter.org website, monthly e-newsletter, YouTube Channel, and social media postings. We support the connectivity of our community with video resources, research publications, access to clinical providers and news and event updates. In 2023, with increased staff resources, we continued building our YouTube presence and started increasing our engagement through other social media platforms.

Mailing List

	2018	2019	2020	2021	2022	2023
Number of Subscribers	2,168	2,309	2,693	2,696	3,269	3,687
Average Email Open Rate	25.5%	24.2%	30.3%	30.4%	42.0%	33.8%
Average Click-through Rate	3.0%	3.2%	3.2%	4.2%	4.2%	4.2%

Social Media Channels

	2023
YouTube	2,938 subscribers (up 28%) 39.8k views
X (Twitter)	472 subscribers 6759 impressions
LinkedIn	266 followers

Demonstrating Leadership

In 2023, Osher faculty continued to provide visionary leadership to the integrative medicine and health community through local, national and international presentations and contributions. Faculty remained active in a variety of committees and organizations responsible for steering and shaping the future of integrative medicine and health globally. In addition, we created and filled a new faculty position to lead efforts exploring opportunities at the interface of technology for integrative health.

Faculty Regional, National and International Leadership Positions

Faculty gave 53 invited presentations, ranging from local talks to international keynotes. The full list of presentations can be found in the Appendices. Some noteworthy presentations include the following:

Peter Wayne



Center for Yoga and Health, Lenox MA

Re-integrating medicine: Towards an ecology of mind, body, and planet.

Keynote Lecture
International Association for Yoga Therapists (IAYT) Symposium on Yoga Research, Kripalu

MIT Media Lab, Cambridge, MA

Qigong in the context of trauma, resilience and flourishing.

Invited Training Leader
Mind and Life Summer Research Institute, Garrison, NY

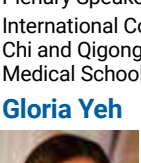
Tai Chi: Mindful movement for chronic pain.

Invited Lecture
International Association of the Study of Pain: IASP Global Year Evidence Summaries on Integrative Pain Models, Toronto, CA (virtual presentation)

“To Qi or not to Qi”: Personal observations on the integration of traditional concepts of Qi into research, practice, and teaching of Tai Chi and Qigong.

Plenary Speaker & Panelist
International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA

Gloria Yeh



State of the science of Tai Chi for chronic cardiopulmonary disease: Advancing whole person health.

Invited Lecture
Third International Taiji Science Forum, World Taiji Science Federation, Henan Polytechnic University, China (virtual presentation)

Small steps to big change: mind-body movement to support positive behaviors

Invited Lecture
Sadhguru Center for a Conscious Planet, Multi-disciplinary Research Center, Departments of Anesthesia and Critical Care and Pain Medicine, BIDMC, Boston, MA

Complementary and integrative medicine and health.

Invited Lecture
Harvard Medical School, Internal Medicine, 2023 Update, Boston, MA

State of the science of Tai Chi and Qigong for cardiopulmonary health.

Invited Lecture
Harvard Medical School, Internal Medicine, 2023 Update, Boston, MA

State of the science of Tai Chi and Qigong for cardiopulmonary health.

Invited Lecture
Harvard Medical School, Internal Medicine, 2023 Update, Boston, MA

State of the science of Tai Chi and Qigong for cardiopulmonary health.

Invited Lecture
Harvard Medical School, Internal Medicine, 2023 Update, Boston, MA

Invited Lecture
Harvard Medical School, Internal Medicine, 2023 Update, Boston, MA

Plenary Speaker & Panelist

International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA

Howard Sesso



What is the future of clinical research on nutrition, dietary supplements, and health outcomes?

Invited Lecture
International Seminar on Nutrition and Public Health, Committee on

Functional Foods, Bioactives, and Human Health, Real Colegio Complutense - Harvard University, Cambridge, MA

Biomarkers of nutritional interventions as a means of improving patient outcomes.

Invited Lecture
BÉNÉFIQ2023 International Conference on Health Food and Ingredients, Institute of Nutrition and Functional Foods (INAF), Université Laval, Canada, Quebec City, Quebec, Canada

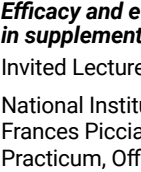
The COSMOS trial results and its implications on future research and healthy aging.

Invited Lecture
Kitalys Institute, Charlottesville, VA (virtual presentation)

Efficacy and effectiveness: Lines of evidence in supplement research.

Invited Lecture
National Institutes of Health’s (NIH) Mary Frances Picciano Dietary Supplement Research Practicum, Office of Dietary Supplements, National Institutes of Health, Bethesda, MD (virtual presentation)

Pamela Rist



Getting involved and contributing to TCQ and mind-body scientific research: practical guidance for instructors.

Invited Lecture
International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA

Studies within clinical trials: Examples from stroke and brain health.

Invited Lecture
International Stroke Genetics Consortium, Boston, MA, USA

Collecting and analyzing epidemiologic data: Lessons from WHS and COSMOS.

Invited Lecture
Weill Medical College of Cornell University, New York, NY (virtual presentation)

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Collecting and analyzing epidemiologic data: Lessons from WHS and COSMOS.

Invited Lecture
Weill Medical College of Cornell University, New York, NY (virtual presentation)

Darshan Mehta



Stress management and resiliency program for African Americans.

Invited Workshop Presenter
Harvard Radcliffe Institute, Harvard University, Boston, MA

Health and faith: Considering the center of wellbeing.

Interfaith America Faith and Health Convening, Chautauqua Institution, Chautauqua, NY

Building Resiliency – Innovations in medical education.

Grand Rounds
GW Resiliency & Well-Being Center, GW School of Medicine and Health Sciences, Washington, DC, (virtual presentation)

The wounded healer.

Invited Lecture
Texas Indo-Physician Society NE Chapter Wellness Symposium, Dallas, TX

Mindfulness and the science of neuroplasticity.

Invited Lecture
3rd Malaysian Lifestyle Medicine Conference, Putrajaya, Malaysia (virtual presentation)

Matthew Kowalski

Chiropractic Care – Indications, rationale, techniques and outcomes

Invited Lecture
Osher Center for Integrative Health Clinical Fellowship Program (virtual presentation)

Caring for Frame during a Career in Music

Invited Lecture
Berklee College of Music, Boston, MA

Aterah Nusrat

Eco-dharma: Nourishing the roots of personal and social transformation through our relationship with nature.

Invited Panel Presenter
NOVA Institute for Health of People, Places and Planet 2023 Annual International Conference (virtual)

Science and spirituality panel on conscious planet.

Panelist
Consciousness, Science, Spirituality and Social Impact, Harvard Medical School, Boston, MA

Science and spirituality panel on conscious planet.

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Consciousness, Science, Spirituality and Social Impact, Harvard Medical School, Boston, MA

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Science and spirituality panel on conscious planet.

Panelist
Consciousness, Science, Spirituality and Social Impact, Harvard Medical School, Boston, MA

Science and spirituality panel on conscious planet.

New Leadership and Staff Transitions



Donald B. Levy, MD
After over 20 years of service as the Medical Director of Osher Clinical Center, Dr. Donald Levy, Assistant Clinical Professor of Medicine at Harvard Medical School, will be retiring in 2024.



Darshan H. Mehta, MD, MPH
In addition to his role as Education Director for the Osher Center, Dr. Darshan Mehta was appointed as the new Medical Director for the OCC as of June 1, 2023.



Andrew Ahn, MD
Dr. Ahn was brought on to the Osher Leadership team as Core Leader, Leveraging Technology for Integrative Health. His timely recruitment is informing the planning and development of our 2024 Network Forum, which will explore the interface of technology and integrative health.

Faculty National and International Leadership Positions

Peter Wayne

• Membership on multiple NIH grant review panels (NIA and NCCIH)

• Chair, Data and Safety Monitoring Board for the NIH-funded multicenter trial: Spinal Manipulation and Patient Self-Management for Preventing Acute to Chronic Back Pain (PACBACK)

• Member, Advisory Board, Assessing Pain, Patient Reported Outcomes and Complementary Health (APPROACH): The CIH for Pain National Demonstration Project, Veterans Administration

• Fellow and Faculty Member, Mind & Life Research Institute

• Advisory Board Member, Cochrane Complementary Medicine, Center for Integrative Medicine, University of Maryland School of Medicine

• Executive Editor, Journal of Integrative and Complementary Medicine

• Board Member, Society for Acupuncture Research

• Member, Advisory Board, OptumLabs Neck Pain Study, University of California, Davis, Center for Healthcare Policy and Research

• Member, International Advisory Board, Research Centre for Chinese Medicine Innovation, Hong Kong Polytechnic University

• Co-Chair, Executive Organizing and Oversight Committee, International Conference, The Science of Tai Chi and Qigong as Whole Person Health, Boston, MA

• Member, Advisory Committee, RAND ‘Research Across Complementary and Integrative Health Institutions (REACH)’ Virtual Resource Center

Gloria Yeh

• Former Member, National Institutes of Health, National Advisory Council for Complementary and Integrative Health, NCCIH

• National Institutes of Health, RECOVER- Researching COVID to Enhance Recovery - Clinical Trials Steering Committee, RECOVER Consortium, Member

• Co-Chair, Executive Organizing Committee, Academic Consortium for Integrative Medicine and Health, International Congress on Integrative Medicine and Health, Phoenix, Arizona

• Advisory Board Member, Cochrane Complementary Medicine, Center for Integrative Medicine, University of Maryland School of Medicine

• Academic Advisory Council Member, Osher Center for Integrative Health, University of Cincinnati

• Member, Harvard Catalyst Scientific Review Committee, Harvard Medical School, Harvard Catalyst Clinical Research Center

• Co-Chair, Executive Organizing and Oversight Committee, International Conference, The Science of Tai Chi and Qigong as Whole Person Health, Boston, MA

• Expert Panel Member, World Health Organization Collaborating Centre, Research Priorities for Traditional, Complementary, and Integrative Medicine

• Editor-in-Chief, Global Advances in Integrative Medicine and Health

Howard Sesso

• Representative (Physicians’ Health Study and Women’s Health Study), National Cancer Institute Cohort Consortium, NCI, NIH

• Co-Chair, Functional Foods, Bioactives and Human Health Study Group, Real Colegio Complutense at Harvard University

• Member, Mentoring for Professionals Program, American Heart Association

• Clinical Epidemiology Admissions Review Committee (SM and PhD applicants), Department of Epidemiology, Harvard T.H. Chan School of Public Health

• Associate Director, Division of Preventive Medicine, Brigham and Women’s Hospital

• Member, NIH Study Section, Single-Site Clinical Trials and Pilot Studies Review Committee, NHLBI / NIH

• Editor-in-Chief, Contemporary Clinical Trials Communications

• Chair, 2024 International Conference on Polyphenols and Health (ICPH)

• Course Director, Design and Conduct of Clinical Trials of Dietary Supplements, Interdepartmental Master’s Program in Nutraceuticals, University of Padua

Darshan Mehta

• Chair, Diversity, Equity and Inclusion (DEI) Task Force for the Academic Consortium for Integrative Medicine and Health (ACIMH)

• Director, Office for Well-Being, Center for Faculty Development at MGH

• Site Director (MGH), Practice of Medicine Curriculum, Harvard Medical School

• Workplace Well-Being Collaborative, Massachusetts General Hospital

• Black, Indigenous, and People of Color (BIPOC) Committee, Academy of Integrative Health and Medicine

• Resilience, Well-Being, and Prevention Think Tank, Department of Psychiatry, Massachusetts General Hospital

• Faculty Development Advisory Council for Anti-Racism, Harvard Medical School

• Supportive Oncology Workgroup, Mass General Brigham Cancer Planning

• Career Reflection Interview Committee, MGH/ BWH

Matthew Kowalski

• Member, Inter-Institutional Chiropractic Research Network

• Advisory Committee Member, NCMIC Foundation, Inc.

• Fellowship Co-Director – NCMIC Foundation Chiropractic Clinician Researcher Fellow

• Delphi Panel Reviewer, Core Competencies (chiropractic for integrated healthcare settings)

Aterah Nusrat

• Chair, Osher Collaborative Planetary Health Working Group

• Program Committee Member, International Congress for Integrative Medicine and Health (ICIMH) 2024

• Invited Faculty, Nova Institute for the Health of People, Places and Planet

• Member, Board of Directors, Mind Body Ecology Institute

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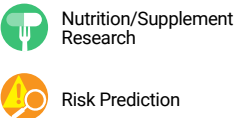
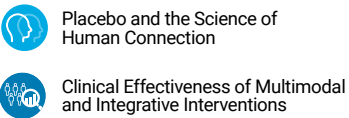
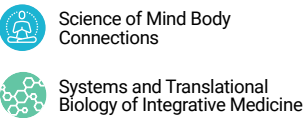
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Faculty and Fellows Publications 37

SUMMARY OF ACTIVE RESEARCH STUDIES































NIH Funded			
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES	RESEARCH DOMAIN
Acute yogic stretching and inflammation NCCIH T32 AT000051, Huffington Foundation (2020-2023)	This RCT evaluates two intensities of acute stretching (60 min) vs. a waitlist control on panels of inflammatory markers (including resolvins) in healthy adults.	Dennis Munoz-Vergara (PI), Peter Wayne (Mentor), Gloria Yeh (Mentor), Pamela Rist (Co-I)	  
A mobile Tai Chi platform for fall prevention in older adults NIH / NIA 1 R42 AG059491-01 (2018-2023)	This STTR grant supports development of a smart-phone based platform for delivering, monitoring adherence and safety, and assessing quality of performance of a Tai Chi program for improving balance in older adults.	Peter Wayne (MPI)	  
A mobile Tai Chi platform for fall prevention in older adults NIH / NIA R42AG059491 Supplement (2021-2023)	This supplement extends work on a mobile Tai Chi training program to include outcomes related to cognitive decline and dementia.	Peter Wayne (MPI)	  
Biophysical properties of acupoints NCCIH T32 AT000051, Osher Pilot (2021-2023)	Using a neuroinflammation viscera-somatic model in IBD patients, this study evaluates local blood flow (laser speckle photometry), thermography, and pressure sensitivity at verum and sham acupoints relevant to GI health in IBD patient and healthy controls.	Eunmee Yang (PI), Peter Wayne (Mentor), Weidong Lu (Mentor), Pamela Rist (Co-I)	 
Boosting mind-body mechanisms and outcomes for chronic pain NIH / NCCIH P01AT009965 (2018-2024)	This is an investigation of the neural and physiological effects of an intervention combining mindfulness training and trans-cutaneous vagus nerve stimulation among episodic migraine patients. The outcomes involve using ultra high-field functional MRI, positron emission tomography, and high frequency heart rate variability to assess how the intervention affects central autonomic nervous system hypersensitivity, emotion/pain regulation processes, and neuroinflammation.	Michael Datko (Co-I)	  
Caring for caregivers with mind-body exercise NIH / NCCIH 5R34AT010081-02 (2018-2021, NCE 2022)	This grant supports a pilot randomized trial evaluating both in-person and web- based delivery of a mind-body intervention for reducing psychological distress and improving function and quality of life in cancer caregivers.	Peter Wayne (MPI)	 
Chiropractic care for episodic migraine NIH / NCCIH 1 R01 AT012228 (2023-2025)	The goal of this application is to perform a pilot study of chiropractic care for episodic migraine to help inform the design of a future, full-scale multi-site pragmatic effectiveness trial.	Peter Wayne (MPI), Matthew Kowalski (Co-I), Pamela Rist (MPI)	
COcoa Supplement and Multivitamins Outcomes Study (COSMOS): Effects on falls and physical performance NIH / NIAMS R01 AG071611 (2021-2025)	This study will determine whether supplemental cocoa flavanols slow age-related declines in physical performance and decrease falls and falls-related fractures that are major public health problems in older women and men in the U.S.	Howard Sesso (Co-I)	
Combined chiropractic care and Tai Chi for chronic non-specific neck pain NIH / NCCIH R34AT011368-01A1 (2022-2025)	The goal of this application is to perform a pilot study of chiropractic care and Tai Chi mind-body exercise for adults with chronic non-specific neck pain.	Peter Wayne (PI), Pamela Rist (Co-I), Matthew Kowalski (Co-I)	 
COSMOS Eye: Cataract and AMD in a trial of multi-vitamin and cocoa extract NIH / NEI R01 EY025623 (2018-2024)	This is an ancillary study of the Cocoa Supplement and Multi-vitamin Outcomes Study (COSMOS) and looks at the benefits and risks of cocoa extract and multivitamins for cataracts and AMD.	Howard Sesso (Co-I)	
Decoding mechanisms underlying metabolic dysregulation in obesity and digestive cancer risk NIH / NCI U01 CA272452 (2022-2027)	This proposal investigates the associations of the novel inflammotypes with incident colorectal and liver cancer risks in men and women by examining metabolic disturbances-related systemic inflammotypes. We hypothesize these can be identified among healthy older adults with varying degrees of visceral adiposity and insulin resistance, and that these inflammotypes may promote the cascading development of digestive cancers (colorectal, liver) through both unique and shared causal pathways.	Howard Sesso (Co-I)	 
Decreasing sedative requirements for peripheral vascular interventions using preoperative guided meditation. Agency for Healthcare Research and Quality (2022-2024)	This early career post-doctoral development award supports the development and piloting of a novel preoperative guided meditation program to decrease sedative requirements in patients undergoing vascular surgery intervention.	Max Png (PI), Gloria Yeh (Co-mentor)	 

























SUMMARY OF ACTIVE RESEARCH STUDIES

NIH Funded			
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES	RESEARCH DOMAIN
Effect of cocoa supplementation on falls, fracture, and physical performance NIH / NIAMS R01 AG071611 (2021-2025)	This study evaluates the effect of the cocoa flavanol and multivitamin interventions from the COSMOS trial in 21,442 women aged ≥65 years and men aged ≥60 years on the risk of falls and fracture that will be adjudicated with medical records, as well as physical performance. In addition, we will examine the effect of the COSMOS interventions on 2-year changes in physical performance measures collected in-person in a subset of 603 participants who completed clinic assessments at baseline and 2 years follow-up.	Howard Sesso (Co-I)	
Effect of randomized cocoa supplementation on inflammaging and epigenetic aging NIH / NHLBI R01 HL157665-01 (2021-2025)	This study evaluates the effect of the cocoa flavanol and multivitamin interventions from the COSMOS trial on longitudinal changes in biological aging, including epigenetics and inflammation, and the subsequent risk of cardiovascular disease in 600 participants.	Howard Sesso (Co-PI)	
Effects of Tai Chi on multisite pain and falls in older adult NIH / NIA R56AG062737-01A1 (2019-2023)	This bridge funding grant supports collection of preliminary data to investigate the effects of Tai Chi on pain symptoms and fall rates in older adults with multisite pain.	Peter Wayne (Consultant), Gloria Yeh (Consultant)	 
Genetic susceptibility and biomarkers of platinum-related toxicities NIH / NC R01 CA157823-07A1 (2020-2025)	In a clinical cohort of >2,000 testicular cancer survivors (TCS) cured with cisplatin-based chemotherapy, we will characterize (a) the longitudinal trajectory of platinum toxicities, (b) the impact of toxicities on health-related quality of life and patient functioning, and (c) the role of genetic variation to identify high-risk subgroups.	Howard Sesso (PI - Subcontract)	 
Health effects of substituting sugar-sweetened beverages with non-caloric beverages in adults with overweight and obesity IH / NIDDK R01 DK125803 (2020-2024)	The SUBstituting with Preferred OPTions (SUB-POP) trial, is a parallel-arm trial to test the effects of substituting sugar-sweetened beverages (SSBs) with non-caloric options on body weight and markers of type 2 diabetes and cardiometabolic health in 540 adults.	Howard Sesso (Co-I)	
Integrative Analysis of Lung Cancer Etiology and Risk (INTEGRAL) – Biomarkers of Lung Cancer Risk (LC3-II) NIH / NCI U19 CA203654 (2019-2023)	This proposal investigates the role of proteomics and the risk of lung cancer using the Lung Cancer Cohort Consortium in a case-cohort study, and includes samples and data from the Physicians' Health Study and Women's Health Study.	Howard Sesso (PI - Subcontract)	 
MBCT via teleconference in cardiac patients with depression NCCIH K23 AT009715 (2019-2023)	This study includes development, refinement, and feasibility testing in a pilot RCT of a MBCT group videoconference intervention in post-acute coronary syndrome depression. It explores impacts on depression, inflammation, and emotional regulation.	Christina Luberto (PI), Gloria Yeh (mentor)	 
Mentoring and patient-oriented research in mind-body exercise NIH / NCCIH K24 AT009465 (2023-2028)	This mid-career investigator/mentoring award provides support for patient-oriented research (multimodal behavioral mind-body approaches, cardiopulmonary conditions, promoting positive behavior change) and mentoring of trainees in the field of integrative medicine.	Gloria Yeh (PI)	 
Mentoring and research in mind-body and integrative therapies NCCIH / NIH K24 AT009282 (2016-2022, NCE 2023)	This career development award provides protected time for mentoring of junior investigators committed to IM research, developing new research skills, and expanding my portfolio of research as a foundation for leading future innovative and high impact studies informing the use of IM therapies and models.	Peter Wayne (PI)	 
Mindful steps in cardiopulmonary disease and heart failure NCCIH R34 AT009354 (2019-2022, NCE 2023)	This study develops, refines and tests feasibility in an RCT of a multimodal internet-mediated mind- body, health education, and wearable device intervention to promote walking, motivation, self-efficacy in COPD and heart failure	Gloria Yeh (PI), Peter Wayne (Consultant)	 
Mindful Steps: A web-based mind-body exercise intervention to promote physical activity in chronic cardiopulmonary disease R01 AT012166 (2023-2028)	This is a remotely-conducted clinical trial with national recruitment testing the efficacy of a multi-modal website/video/ Fitbit-mediated mind-body intervention called Mindful Steps to facilitate physical activity adherence in patients with COPD and heart failure.	Gloria Yeh (PI), Peter Wayne (Co-I) Pamela Rist (Co-I)	 
Mindfulness training, insomnia, and EEG complexity NCCIH T32 AT005436 (2019-2023)	This pilot RCT examines acute and longitudinal effects of pre-sleep mindfulness meditation via mobile app on pre-sleep wakefulness and sleep brain dynamics assessed with conventional and non-linear EEG complexity frameworks.	Yan Ma (PI), Gloria Yeh (Mentor), Peter Wayne (Mentor)	  
Multimodal tele-video mind-body intervention for mTBI NCCIH K23 AT01065 (2020-2025)	This study will develop, refine and test feasibility in an RCT of a mind-body resiliency program delivered remotely via video for anxiety in patients with traumatic brain injury.	Jonathan Greenberg (PI), Gloria Yeh (mentor)	 












SUMMARY OF ACTIVE RESEARCH STUDIES

NIH Funded			
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES	RESEARCH DOMAIN
Opioid dose reduction in comprehensive inpatient rehabilitation: A pharmaco-behavioral approach NIH / NIDA K23 DA052041-01A1 (2021-2026)	This career development award supports Dr Morales-Quezada in conducting a pilot RCT of a novel intervention based on classical conditioning and placebo analgesia for pain management in complex pain patients with spinal cord injury in the inpatient rehabilitation setting.	Leon Morales-Quezada (PI), Gloria Yeh (Mentor), Ted Kaptchuk (Mentor)	
Physiological outcomes of mind-body health behaviors for stress-related disorders NCCIH F32 (2021 -2023)	This is a pre-doctoral early career development award that supports a project to examine pranayama, hyper-arousal and cardiovascular reactivity in female sexual trauma survivors.	Sinead Sinott (PI), Gloria Yeh (co-mentor)	  
Pilot of a brief cognitive behavioral therapy intervention to enhance benzodiazepine deprescribing (C-STARS) US Deprescribing Research Network (USDeN), funded through National Institutes of Health/Institute for Aging (NIA), R24 AG64025 (2023-2024)	This is a one-year grant to support a developmental pilot studying the impact of a telehealth cognitive-behavioral therapy intervention to aid tapering of benzodiazepine medications in older patients in primary care.	Dennis Anderson (Co-PI) Gloria Yeh (Co-PI)	 
Researching COVID to enhance recovery (RECOVER) Initiative: A multi-site observational study of post-acute sequelae of SARS-CoV-2 infection in adults NIH / NHLBI OT2HL161847 (2021-2025)	The goal of the study is to rapidly improve understanding of recovery after SARS CoV-2 infection and to prevent and treat post-acute sequelae of COVID-19 (PASC).	Howard Sesso (Co-I)	 
Research training: Complementary & integrative medicine NIH / NCCIH T32 AT000051 (2012-2024)	This institutional training grant supports a three-year research fellowship program for faculty development in complementary and integrative medicine.	Gloria Yeh (PI)	   
Stress management and resiliency program for fear of cancer recurrence NCCIH K23 AT010157 (2019-2024)	This study develops, refine and test feasibility in an RCT of adapted SMART program for fear of recurrence in cancer survivors, and explores impact on psychological symptoms and healthcare engagement.	Daniel Hall (PI), Gloria Yeh (mentor)	  
Supplement to the Women's Health Study: Infrastructure support for continued cohort follow-up NIH / NCI U01 CA182913-06S2 (2020-2023)	This supplement to the main grant supporting the Women's Health Study uses data from the Centers for Medicare and Medicaid to examine the prevalence and incidence of dementia within the cohort and to examine risk factors for dementia	Pamela Rist (PI)	
Tai Chi and chronic pain in HIV NCCIH K23 AT010099 (2019-2024)	This study will develops, refines and tests feasibility in an RCT of adapted Tai Chi Easy program for HIV patients with chronic pain, and explore its impact on psychological symptoms.	Eugene Dunne (PI), Gloria Yeh (mentor)	 
Tai Chi and Qigong as whole person health: advancing the integration of mind-body practices in contemporary healthcare NIH/NCCIH 1 R13 (2023-2024)	This grant supports an international conference on the science of Tai Chi and Qigong for whole person health	Peter Wayne (PI) Gloria Yeh (Co-I)	 
Tai Chi exercise and wearable feedback technology to promote physical activity in ACS survivors (MIND2MOVE) NCCIH, R01 AT012072 (2022-2026)	This is a dual-site (BIDMC/HMS and Brown University/Miriam Hospital) randomized controlled trial investigating a virtual multi-modal intervention (online Tai Chi exercise classes and use of a Fitbit) to promote physical activity in sedentary CV patients after acute coronary syndrome.	Gloria Yeh (PI) Peter Wayne, (Co-I)	 
The Women's Health Initiative regional field center program renewal NIH / NHLBI HHSN268201100001C (2010-2027)	The overall objective of the trial is to test the effectiveness of treatments that may improve the health of post-menopausal women in the areas of cardiovascular disease, cancer and fractures.	Howard Sesso (Co-I)	
Toolkit for optimal recovery after orthopedic injury: A multi-site feasibility study to prevent persistent pain and disability National Center for Complementary and Integrative Health; U01AT010462 (2020-2024)	This is a multisite feasibility trial of the Toolkit for Optimal Recovery after injury delivered via live video versus usual care. We aim to meet feasibility markers necessary before a fully powered RCT via the UG3/UH3 mechanisms.	James Doorley (Co-I)	
Treatments against RA and effect of FDG PET CT: The TARGET trial NIH/NIAMS U01 AR068043 (2022- 2026)	This randomized clinical trial will compare the effect on vascular inflammation of two treatment regimens for rheumatoid arthritis.	Pamela Rist (Co-I)	 
Understanding components of mind-body exercise for physical activity engagement in metabolic syndrome NIH / NCCIH, 1K23AT011043-01A1 (2021-2026)	This grant proposes to investigate the effects of mindful exercise on health behavior change processes and physical activity engagement among individuals with metabolic syndrome.	Kristen Kraemer (PI), Gloria Yeh (Mentor), Peter Wayne (Mentor)	 
Using instrumented everyday gait to predict falls in older adults using the WHS cohort NIH / NNCCIH R01 AG078256-01 (2023-2027)	Among community-living older adults, falls are a leading cause of injury, disability, injury-related death, and high medical costs. Using data collected from approximately 17,500 women enrolled in the Women's Health Study who wore an accelerometer during waking hours for a week, we will evaluate if metrics of daily living gait and physical activity inform the prediction of injurious falls.	Peter Wayne (MPI), Pamela Rist (Co-I)	 






SUMMARY OF ACTIVE RESEARCH STUDIES

Foundation and Internally Funded			
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES	RESEARCH DOMAIN
A randomized, double-blind, placebo-controlled trial to determine the effect of Korean red ginseng on immuno-enhancement in healthy subjects Korean Ginseng Corporation, industry-sponsored (2022-)	This industry-sponsored multi-site clinical trial examines the effect of 12-weeks use of a ginseng supplement on immune biomarkers.	Gloria Yeh (Site PI)	
ACT for migraine trial Lavine Foundation (2020-2023)	RCT evaluating Acceptance and Commitment Based Therapy vs. wait-list control for chronic migraineurs. Outcomes: feasibility, migraine episodes. Neuroimaging sub-study. Mixed methods. (N=40)	Bernstein (PI), Pamela Rist (Co-I), Peter Wayne (Co-I)	 
Epidemiologic risk factors for COVID-19 across three established trial cohorts of older US adults BWH Internal Funds Investigator-Initiated Grant (2020-2023)	The goal of this project is to identify COVID-19 risk factors and reported COVID-19 outcomes across three large ongoing trial cohorts in nearly 70,000 older US adults, including VITAL, COSMOS, and WHS.	Howard Sesso (PI), Peter Wayne (Co-I) Dennis Munoz-Vergara (Co-I)	
Gait health as a clinical outcome Palmer Foundation (2020-2024)	This feasibility study assesses integration of gait health parameters (Zeno Gait System) into patient visits at Osher Clinic.	Peter Wayne (PI), Matthew Kowalski (Co-I) Wren Burton (Co-I)	
Health Equity Research Network (HERN) project for the prevention of hypertension: RESTORE (AddREssing Social Determinants TO pRevent hypErTension) network project American Heart Association, 878488 (2021-2025)	The goal of this study is to determine the effectiveness of a DASH grocery intervention on SBP among Black adults with elevated blood pressure or untreated stage 1 hypertension, using the RE-AIM framework.	Kristen Kraemer (Co-I)	
Increasing access to Tai Chi balance training for frail older adults using a robotic-enhanced 'Tele-Tai Chi' platform MIT Asada Robotics Lab (2022-2023)	This proof of concept study merges an existing platform for virtual delivery of Tai Chi with a robotic walker and fall-preventing harness to extend balance training to frail elders at high risk of falling.	Peter Wayne (PI)	 
Inter-institutional chiropractic research network Grant Palmer College Foundation (2017-2025)	This award supports a series of pilot/feasibility trials and observational evaluating the effectiveness of chiropractic care for reducing pain and enhancing function in chronic pain conditions.	Peter Wayne (PI), Matthew Kowalski (Co-I)	 
Mindfulness and Tai Chi for cancer health: The MATCH Trial Hecht Foundation (2018-2023)	This Canada-based pragmatic patient preference and randomized trial evaluates the effectiveness of two alternative mind-body therapies (Tai Chi vs. mindfulness training) for symptom management and quality of life in cancer patients.	Linda Carlson (PI), Peter Wayne (Co-I)	  
Natural history of neurofilament concentrations and mechanisms of healthy aging using data science Massachusetts Life Science Center Investigator-Initiated Grant (2020-2023)	Through a unique combination of industry and academic collaborations, we will develop a Data Science Platform among 1,300 participants providing 3,000 blood samples from PHS, VITAL, and COSMOS to study the natural history of neurofilament levels with novel aging-related biomarkers newly measured via substantial in-kind contributions and previously collected risk factors and aging outcomes.	Howard Sesso (PI)	
Non-verbal measurement of negative self-conscious emotion Harvard Medical School Osher Center for Integrative Health (2020-2023)	Pilot study using facial gesture, posture, and voice acoustic analyses along with machine learning algorithms to identify objective markers of shame in men diagnosed with HIV and who engage in risky behaviors. (N=30)	Abigail Batchelder (PI), Paolo Bonato (co-I), Peter Wayne (co-I)	
Novel biomarkers for cognitive function in the COSMOS Randomized Trial Women's Brain Initiative, BWH (2022-2024)	This project explores how three novel biomarkers correlate with change in cognitive and physical function among apparently healthy individuals at baseline using COSMOS data.	Howard Sesso (Co-I)	
Pre-sleep EEG brain dynamics and mindfulness meditation in insomnia Harvard Medical School Osher Center for Integrative Health (2019-2023)	This pilot awards supports the development of a pilot feasibility study examining changes in novel EEG brain dynamics, pre-sleep mindfulness meditation, and improvement of sleep quality in patients with insomnia, utilizing advanced physiological processing and non-linear complexity measures.	Gloria Yeh (PI) Yan Ma (Co-PI) Peter Wayne (Co-I)	  
Physiological dynamics of the sleep onset process: conventional and novel analyses using SHHS data The American Academy of Sleep Medicine (AASM) Foundation - Focused Projects Grant for Junior Investigators (2022-2023)	Physiological dynamics during the sleep onset process may represent important biomarkers characterizing sleep pathophysiology. This explores the physiology of the wake-sleep transition, and provides novel information regarding pre-sleep physiology, hyper-arousal, and sleep-onset with the richness of observational data from the real world.	Yan Ma (PI)	  

SUMMARY OF ACTIVE RESEARCH STUDIES

Foundation and Internally Funded			
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES	RESEARCH DOMAIN
Randomized trial of cocoa flavanols and multivitamins for cardiovascular disease and cancer prevention (COSMOS Blood) Mars Symbioscience Investigator-Initiated Grant (2014-2024)	This ancillary study will collect supplemental blood and urine, plus anthropometrics and blood pressure, at baseline, 1, 2, and 3 years follow-up in the COSMOS trial, a randomized, 2x2 factorial trial testing a cocoa extract and a multivitamin supplement (Centrum Silver) in the prevention of cardiovascular disease (CVD) and cancer in 21,444 women aged ≥65 years and men aged ≥60 years.	Howard Sesso (Co-PI)	
Randomized trial of cocoa flavanols and multivitamins for cardiovascular disease and cancer prevention (COSMOS ModBent) Mars Symbioscience Investigator-Initiated Grant (2014-2024)	This ancillary study will collect cognitive function data via web assessment at baseline, 1, 2, and 3 years follow-up, plus add cognitive assessments to COSMOS Clinic visits at baseline and 2 years follow-up, in the ongoing COSMOS trial testing a cocoa extract and a multivitamin supplement (Centrum Silver) in 21,444 women aged ≥65 years and men aged ≥60 years.	Howard Sesso (Co-PI)	
Randomized trial of cocoa flavanols and multivitamins for cardiovascular disease and cancer prevention Mars Symbioscience Investigator-Initiated Grant (2014-2024)	This study proposes to conduct a randomized, double-blind, placebo-controlled, 2x2 factorial trial of a patented, high-quality cocoa extract and a multivitamin supplement (Centrum Silver) in the prevention of cardiovascular disease (CVD) and cancer in 21,444 women aged ≥65 years and men aged ≥60 years with 4 years of treatment and follow-up.	Howard Sesso (Co-PI)	
Tai Chi plus chiropractic for chronic neck pain in nurses Palmer and Van Sloun Foundations (2021-2023)	Pre-post feasibility study evaluating pragmatic (community-based) delivery of combined Tai Chi and chiropractic care for chronic neck pain Primary outcomes: feasibility, neck pain, function, postural control. Mixed methods.	Peter Wayne (PI), Matthew Kowalski (Co-I), Pamela Rist (Co-I) Wren Burton (Co-I)	 
The effect of a combined technology-mediated walking and Tai Chi intervention on physical function in veterans with COPD and co-occurring dyspnea and chronic musculo-skeletal pain VA MERIT, 1 IO1 RX004225-01 (2022-2027)	This is a randomized controlled trial that tests efficacy of an existing web-mediated intervention (Every Step Counts) integrated with a Tai Chi exercise video library and synchronous online exercise classes to promote physical function in patients with COPD and co-morbid pain.	Gloria Yeh (Co-I)	 
The role of epigenetics on health outcomes and risk factors in the Physicians' Health Study FOXO Technologies, Inc Investigator-Initiated Grant (2021-2024)	We will conduct epigenetic profiling of 11,718 PHS participants in relation to numerous risk factors, long-term aging outcomes, and the extension of mortality follow-up through 2020 via a National Death Index search.	Howard Sesso (PI)	
Trial of magnesium supplementation and blood pressure reduction among adults with elevated systolic blood pressure Pure Encapsulations Investigator-Initiated Grant (2021-2026)	This study is a randomized, double-blind, placebo-controlled trial to test the effects of 480 mg/day of Mg glycinate on BP over 12 weeks of treatment and follow-up in 120 middle-aged and older adults with initial seated BP ≥130 mmHg.	Howard Sesso (PI)	
Trial of magnesium supplementation and blood pressure reduction among adults with untreated hypertension Pure Encapsulations Investigator-Initiated Grant (2018-2023)	This study is a randomized, double-blind, placebo-controlled trial to test the effects of 480 mg/day of Mg glycinate on BP over 12 weeks of treatment and follow-up in 59 middle-aged and older adults with untreated hypertension.	Howard Sesso (PI)	
Vitamin D for COVID-19 (VIVID) trial Harvard, Charitable, Philanthropic Investigator-Initiated Grant (2020-2023)	The VIVID trial is a pragmatic, cluster randomized, double-blinded trial of newly diagnosed individuals with COVID-19 infection and close household contacts randomized to either vitamin D3 (loading dose, then 3200 IU/day) or placebo for 4 weeks to determine the effect of vitamin D supplementation on disease progression and post-exposure prophylaxis for COVID-19 infection.	Howard Sesso (Co-PI)	

SUMMARY OF ACTIVE RESEARCH STUDIES

Education and Clinic Awards		
STUDY / PROJECT TITLE (FUNDING SOURCE)	SUMMARY DESCRIPTION	PI / KEY OSHER INVESTIGATORS AFFILIATES
Mind body intervention program for physicians MGPO Frigoletto Committee on Physician Well-Being (2020-2023)	This pilot project examines the impact of a resiliency intervention in physicians in the MGH Cancer Center. The course has been granted continuing medical education credit through HMS.	Darshan Mehta (Co-I)
Establishing a clinician-researcher chiropractic postdoctoral fellowship at the Harvard Medical School/Brigham and Women's Hospital Osher Center for Integrative Health NCMIC Foundation (2020-2024)	This gift supports the training of a chiropractic clinician-research fellow at the Osher Center for a 3-year period.	Peter Wayne (MPI), Matthew Kowalski (MPI)
Myalgic encephalomyelitis/chronic fatigue syndrome initiative Once Here Foundation; Clinical Project (2021 -)	This project aims to expand the clinical program at MGH and improve access to care and quality of life for patients with ME/CFS through innovations in diagnosis and treatment.	Darshan Mehta (Co-I)
Stress management and resiliency training for employee. Mass General Brigham Systems Behavioral and Mental Health Grant; Clinical Project (2022-2023)	This project aims to improve access to behavioral health care for MGB employees through stress management and resiliency training (SMART) offered through the Benson-Henry Institute for Mind Body Medicine	Darshan Mehta (PI)
TEDxMGH MGH Center for Faculty Development (internal funding); Educational Project (2020-)	This project uses the TEDx internal event platform to invite inspirational stories from the MGH community and how people have handled challenges—through innovation, resilience, vulnerability, and connection. Talks are curated monthly, produced, and distributed for the MGH community	Darshan Mehta (PI)
<div><div> Science of Mind Body Connections</div><div> Systems and Translational Biology of Integrative Medicine</div><div> Placebo and the Science of Human Connection</div><div> Clinical Effectiveness of Multimodal and Integrative Interventions</div><div> Nutrition/Supplement Research</div><div> Risk Prediction</div></div>		

SUBMITTED / PENDING GRANTS

Submitted and Pending			
STUDY / PROJECT TITLE (TARGET FUNDING SOURCE)	SUMMARY OF PLANNED STUDY	PI / KEY OSHER INVESTIGATORS	RESEARCH DOMAIN
App-guided bedtime mindfulness for insomnia NIH / NCCIH K23 - Mentored Patient-Oriented Research Career Development Award	This proposal aims to spark new insights regarding the feasibility and potential benefits of app-guided mindfulness meditation (MM) for patients with insomnia disorder, by comparing two approaches of MM interventions (instructed bedtime practice versus uninstructed practice) with a control group.	Yan Ma (PI)	  
Development and pilot testing of an integrated mind-body intervention for Chinese Americans with depression and somatic symptoms NIH / NCCIH R34 (2024-2027)	This grant will support a novel multi-modal mind-body intervention for addressing depression in Asian Americans.	Peter Wayne (Co-I)	 
Effects of a pistachio-enriched diet on cognitive and cardiometabolic markers in older adults: A parallel-arm randomized controlled trial American Pistachio Growers	We will conduct a randomized clinical trial to test the effects of a pistachio-enriched diet, compared to a usual diet, on cognitive function, life satisfaction, and cardiometabolic risk factors in older adults leveraging participants from the COSMOS trial cohort.	Howard Sesso (PI)	 
Longitudinal changes in multi-omics and subsequent cardiovascular outcomes in three large prospective cohorts NIH	We will examine the association of short-term (up to 5 year) and long-term (14-year) changes in proteomic and metabolomic traits with incident cardiovascular disease, atrial fibrillation (AF) and heart failure (HF) leveraging three large prospective cohorts, including VITAL, COSMOS, and PHS, with longitudinal bloods	Howard Sesso (MPI)	 
Implementing brief web-based acceptance and commitment therapy for chronic musculoskeletal pain in an urban community health center National Center for Complementary and Integrative Health; 1K23AT012207-01 (2022)	The goal of the proposed study is to establish the feasibility of implementing a web-based, self-guided acceptance and commitment therapy intervention with supportive coaching (PainTracker Self-Manager; PTSM) for chronic musculoskeletal pain in a community health center in the low-SES neighborhood of Roxbury, MA.	James Doorley (PI)	 
Integrative analysis of lung cancer etiology and risk – application and translation NIH	Following our success in predicting smoking-related lung cancer using protein markers, we will identify and validate similar markers for lung cancer among never smokers, with the long-term goal to adapt the INTEGRAL panel to predict lung cancer risk regardless of smoking history.	Howard Sesso (sub PI)	 
Investigating brain mechanisms of interoception as a predictor of treatment response to a combined mindfulness and vagus nerve stimulation intervention for anxiety. NCCIH K01 Mentored Research Scientist Career Development Award (PA-20-176)	Anxiety disorders are characterized by dysregulation among brain mechanisms of interoceptive awareness, and have previously had mixed responses to mindfulness-based interventions. Vagus nerve stimulation may augment mindfulness interventions for anxiety by directly targeting mechanisms of interoceptive awareness in the central autonomic nervous system. We proposed to investigate how brain response during interoceptive attention, along with anxiety symptom profiles including interoceptive hypersensitivity, may predict the response to a multimodal treatment approach combining a mindfulness-based intervention with transcutaneous vagus nerve stimulation.	Michael Datko (PI)	  
Mental health literacy in musculoskeletal healthcare providers: Identifying implications for practice, policy, and medical education West Virginia Clinical and Translational Science Institute (2022)	The goals of this project are to assess mental health literacy among musculoskeletal healthcare professionals treating patients who are vulnerable to negative mental health outcomes in rural West Virginia, evaluate providers' mental healthcare policies and procedures, and explore associations between providers' mental health literacy and mental health policy compliance	James Doorley (Consultant)	
NSF Engineering Research Center for connected health and aging-in-place technology National Science Foundation / Massachusetts Institute of Technology (2024-2028)	This program project will employ the use of leading edge engineering tools to support aging in place.	Peter Wayne (Co-I)	  
Pragmatic randomized controlled clinical trial of multivitamin-mineral supplementation to preserve cognitive function and protect against decline in a large diverse cohort of older Americans NIH	The aims of this large simple pragmatic 2-arm randomized controlled 3-year trial is to provide the essential data that can definitively assess whether daily MVM supplementation (Centrum Silver) versus placebo can enhance cognition or protect against cognitive decline for older Americans.	Howard Sesso (sub PI)	 
Pre-diagnostic plasma levels of per- and poly-fluoroalkyl substances (PFAS) and correlated metabolomic changes in association with pancreatic cancer risk NIH	This project aims to conduct a prospective nested case-control study to test the association between PFAS exposure and pancreatic cancer and to explore the potential mechanisms involved in the association. We will utilize the extensive resources from large and well-characterized prospective cohorts of men and women in the US	Howard Sesso (sub PI)	 
Retinoid-omics to Study Mechanisms of Provitamin A on Cognitive Decline in Older Adults NIH	This project will determine how vitamin A metabolism may be associated with cognitive protection in older men and women through an evaluation of a causal role of vitamin A metabolites, and lipids and proteins under vitamin A control, in cognitive protection. We will further elucidate if randomized, long-term provitamin A supplementation directly or indirectly drove the cognitive protection previously reported in PHS subjects.	Howard Sesso (MPI)	 
Tai Chi Intervention for Geriatric Pain Syndrome NIH/NIA R01 2024-2029	This multi-site trial will evaluate Tai Chi as an intervention to prevent falls and reduce pain in older adults with multi-site pain syndrome.	Peter Wayne (Co-I) Gloria Yeh (Co-I)	  

2023 GRAND ROUNDS PRESENTATIONS AND ATTENDANCE

DATE	SPEAKER	PROGRAM/INSTITUTION	SESSION TITLE	REGISTRANTS	ATTENDED
1/3/2023	Howard Sesso, ScD, MPH	Osher Center for Integrative Health	Dietary Supplements, Integrative Medicine and Health: What has Research Taught Us?	222	137
2/7/2023	Jon Porter, MD Joshua Plavin, MD, MPH, MBA	The University of Vermont	Creating an Integrative, Effective, and Financially Sustainable Program for Individuals with Chronic Pain – Experience and Outcomes at the University of Vermont	161	95
3/7/2023	Jacklyn Foley, PhD Michael Datko, PhD EunMee Yang, PhD, MPH, LAc	Osher Center for Integrative Research Fellows	Highlighting Osher Research Fellows' Work in Progress: Biology of Acupoints, Mindfulness in Primary Care, Integrative Behavioral Interventions in HIV	170	93
4/4/2023	Louise Aronson, MD, MFA	UCSF Osher Center for Integrative Health	Integrative Aging – Better Health Across the Stages of Old Age	375	246
5/16/2023	Laura D. Baker, PhD	Wake Forest University School of Medicine	Building Cognitive Resilience One Layer at a Time	308	160
6/6/2023	Selma Holden, MD, MPH	University of New England College of Osteopathic Medicine	Grand Rounds: Group Ketamine Therapy – Rediscovering Healing in Community	191	101
7/11/2023	Christopher Lowry, PhD	University of Colorado, Boulder	The Farm Effect: Implications of Diverse Microbial Exposures for the Microbiome and Mental Health	121	77
8/1/2023	Ting Bao, MD	Dana Farber Cancer Institute	Complementary and Integrative Health for Cancer Related Peripheral Neuropathy	171	105
9/5/2023	Ryan Mace, PhD, Abigail Batchelder, PhD, MPH Michael Goldstein, PhD	Harvard Medical School and Massachusetts General Hospital / Beth Israel Deaconess Medical Center/ Massachusetts General Hospital	Osher Pilot Relay: Promoting Brain Health; Measuring Emotions; Exploring Stress Physiology	212	114
10/10/2023	Scott Haldeman, DC	University of California, Irvine	Primary Spine Care: An Initiative to Address the Extreme Health Burden of Spinal Pain	386	151
11/7/2023	Marilyn Moy, MD, MSc	VA Boston Health Care System	COPD and Physical Activity	171	100
11/20/2023	Evan Thompson, PhD	University of British Columbia, Vancouver	Mindfulness Meditation as Embodied Cognition: A View from Cognitive Science (Annual Joint HMS Mind Body Research & Health Lecture)	543	224
12/5/2023	Bob Waldinger, MD	Harvard Medical School and Massachusetts General Hospital	Social Connection and Happiness (3rd Annual Endowed Cogan Lecture)	523	245

FACULTY LOCAL LECTURES 2023

PRESENTER	TITLE	TYPE	INSTITUTION
Matthew Kowalski	Caring for frame during a career in music	Invited Lecture	Berklee College of Music, Boston, MA
Darshan Mehta	Creating a lab culture centered around well-being.	Invited Lecture	Leadership Development Program for Researchers, MGH
Darshan Mehta	Healthcare provider resilience and well-being – Focusing our conversation in the era of the pandemic and beyond.	Grand Rounds	Department of Neurosurgery, MGH
Darshan Mehta	Healthcare provider well-being.	Invited Discussant	ELEVATE Leadership Program, Department of Medicine, MGH
Darshan Mehta	Stress management and resiliency program for African Americans.	Invited Workshop	Harvard Radcliffe Institute, Harvard University
Howard Sesso	Beyond DASH: New directions for nutritional interventions to lower blood pressure.	Invited Lecture	MGB Departments of Medicine Research Seminar Series, BWH and MGH
Howard Sesso	Dietary supplements, integrative medicine and health: What has research taught us?	Grand Rounds	Osher Integrative Medicine Grand Rounds, BWH and HMS, Boston, MA
Peter Wayne	Integrating medicine: Towards an ecology of mind, body, and planet.	Invited Lecture	Sadhguru Center for a Conscious Planet Speaker Series, BIDMC
Peter Wayne	Tai Chi for chronic neck pain.	Invited Lecture	Brookside Community Health Center, BWH
Peter Wayne	Tai Chi for musculoskeletal pain and fall prevention.	Invited Lecture	Physical Therapy Department, BWH
Gloria Yeh	Small steps to big change: mind-body movement to support positive behaviors/ lecture series.	Invited Lecture	Sadhguru Center for a Conscious Planet, Multi-disciplinary Research Center, Departments of Anesthesia and Critical Care and Pain Medicine, BIDMC

FACULTY NATIONAL/REGIONAL LECTURES 2023

PRESENTER	TITLE	TYPE	INSTITUTION
Matthew Kowalski	Chiropractic Care – Indications, rationale, techniques and outcomes	Invited Lecture (virtual)	Osher Center for Integrative Health Clinical Fellowship Program, San Francisco, CA
Darshan Mehta	Building resiliency – Innovations in medical education.	Grand Rounds (virtual)	GW Resiliency & Well-Being Center, GW School of Medicine and Health Sciences, Washington, DC
Darshan Mehta	Integrative Medicine.	Invited Lecture (virtual)	San Diego State University, San Diego, CA
Darshan Mehta	Health and faith: Considering the center of wellbeing.	Invited Panelist	Interfaith America Faith and Health Convening, Chautauqua Institution, Chautauqua, NY
Darshan Mehta	Stress management and resiliency training for NIH KL2 scholars / workshop.	Invited Lecture (virtual)	NCATS/NIH, Bethesda, MD
Darshan Mehta	The wounded healer.	Invited Lecture	Texas Indo-Physician Society NE Chapter Wellness Symposium, Dallas, TX
Darshan Mehta	The wounded healer.	Invited Lecture	Chautauqua Institution, Chautauqua, NY
Darshan Mehta	The wounded healer.	Invited Lecture	Integrative Medicine Elective Rotation, University of Arizona, Tucson, AZ
Pamela Rist	Collecting and analyzing epidemiologic data: Lessons from WHS and COSMOS.	Invited Lecture (virtual)	Weill Medical College of Cornell University, New York, NY
Pamela Rist	Confounding and bias in clinical research.	Invited Lecture (virtual)	Montclair State University, NJ
Pamela Rist	Developing a research question: Lessons from stroke epidemiology.	Invited Lecture (virtual)	University of California – San Francisco, San Francisco, CA
Pamela Rist	Migraine – More than just a headache.	Grand Rounds (virtual)	Wake Forest School of Medicine, Winston-Salem, NC
Howard Sesso	Beta-carotene and cognitive decline: Insights from the Physicians' Health Study.	Invited Lecture	International Stroke Genetics Consortium, Boston, MA
Howard Sesso	Do dietary supplements have any role in the prevention of cardiovascular disease?	Invited Lecture (virtual)	T32 Cardiovascular Disease Fellowship Program, Division of Preventive Medicine, Department of Family Medicine, University of California San Diego, La Jolla, CA
Howard Sesso	Efficacy and effectiveness: Lines of evidence in supplement research.	Invited Lecture (virtual)	National Institutes of Health's (NIH) Mary Frances Picciano Dietary Supplement Research Practicum, Office of Dietary Supplements, National Institutes of Health, Bethesda, MD
Howard Sesso	Multivitamin-multimineral supplementation and aging: Past, present, and future.	Invited Lecture (virtual)	Haleon, Warren, NJ
Howard Sesso	Promise for pills? New research on dietary supplements, Integrative Medicine and health.	Invited Lecture (virtual)	Benson-Henry Institute for Mind Body Medicine, Boston, MA
Howard Sesso	The effects of randomized cocoa extract and multivitamins on the gut microbiome: A pilot study in COSMOS.	Plenary Presenter	American Heart Association EPI/Lifestyle Scientific Sessions, Boston, MA
Peter Wayne	Resiliency and wellness in academia with mind-body skills.	Invited Lecture	MIT Media Lab, MA
Peter Wayne	Success and challenges of an Integrative Health Center in an increasingly competitive academic space.	Panel Presenter	Osher Collaborative for Integrative Health Annual Meeting, San Francisco, CA
Peter Wayne	Tai Chi for whole person health and healthy aging.	Invited Lecture (virtual)	Osher Center for Integrative Health Clinical Fellowship Program, San Francisco, CA
Peter Wayne	Tai Chi for balancing body and mind.	Invited Lecture (virtual)	Osher Collaborative Longevity and Healthy Aging Symposium

FACULTY INTERNATIONAL LECTURES 2023

PRESENTER	TITLE	TYPE	INSTITUTION
Darshan Mehta	Mindfulness and the science of neuroplasticity.	Invited Lecture (virtual)	3rd Malaysian Lifestyle Medicine Conference, Putrajaya, Malaysia
Aterah Nusrat	Eco-dharma: Nourishing the roots of personal and social transformation through our relationship with nature.	Invited Lecture and Panelist (virtual)	Nova Institute for the Health of People, Places and Planet, Annual Conference
Aterah Nusrat	Science and spirituality panel on conscious planet.	Panelist	Consciousness, Science, Spirituality and Social Impact, Harvard Medical School, Boston, MA
Pamela Rist	Getting involved and contributing to TCQ and mind-body scientific research: practical guidance for instructors.	Invited Lecture	International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA
Pamela Rist	Studies within clinical trials: Examples from stroke and brain health.	Invited Lecture	International Stroke Genetics Consortium, Boston, MA
Howard Sesso	Biomarkers of nutritional interventions as a means of improving patient outcomes.	Invited Lecture	BÉNÉFIQ2023 International Conference on Health Food and Ingredients, Institute of Nutrition and Functional Foods (INAF), Université Laval, Canada, Quebec City, Quebec, Canada
Howard Sesso	The COSMOS trial results and its implications on future research and healthy aging.	Invited Lecture (virtual)	Kitalys Institute, Charlottesville, VA
Howard Sesso	Understanding the potential cardiovascular disease benefits of cocoa flavanols in the COSMOS trial.	Invited Lecture	Annual Meeting of Japan Society for Bioscience, Biotechnology, and Agrochemistry (JSBBA) Symposium, Hiroshima, Japan
Howard Sesso	What is the future of clinical research on nutrition, dietary supplements, and health outcomes?	Invited Lecture	International Seminar on Nutrition and Public Health, Committee on Functional Foods, Bioactives, and Human Health, Real Colegio Complutense - Harvard University, Cambridge, MA
Peter Wayne	Getting involved and contributing to TCQ and mind-body scientific research: Practical guidance for instructors.	Invited Lecture	International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA
Peter Wayne	Preventing falls, cognitive decline, and chronic pain in aging: The promise of integrative mind-body approaches.	Invited Lecture	Integrated Brain and Mind Care Program. Buddi Clinic, Chennai, India
Peter Wayne	Qigong in the context of trauma, resilience and flourishing.	Invited Lecture and Instructor	Mind and Life Summer Research Institute, Garrison, NY
Peter Wayne	Re-integrating medicine: Towards an ecology of mind, body, and planet.	Keynote Lecture	International Association for Yoga Therapists (IAYT) Symposium on Yoga Research, Kripalu Center for Yoga and Health, Lenox, MA
Peter Wayne	Science and spirituality panel on conscious planet.	Panel Facilitator	Consciousness, Science, Spirituality and Social Impact, Harvard Medical School, Boston, MA
Peter Wayne	Tai Chi: Mindful movement for chronic pain.	Invited Lecture (virtual)	International Association of the Study of Pain: IASP Global Year Evidence Summaries on Integrative Pain Models, Toronto, Canada
Peter Wayne	The Science of Tai Chi and Qigong for whole person health: Advancing the integration of mind-body practices in contemporary healthcare--Setting the context.	Opening Remarks and Session Chair	International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA
Peter Wayne	"To Qi or not to Qi": Personal observations on the integration of traditional concepts of Qi into research, practice, and teaching of Tai Chi and Qigong.	Invited Lecture	International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA
Gloria Yeh	Advancing the research in complementary and integrative medicine.	Invited Lecture (virtual)	Neurofeedback Working Group, Pritzker Foundation, Sicily, Italy
Gloria Yeh	State of the science of Tai Chi and Qigong for cardiopulmonary health.	Plenary Lecture and Panelist	International Conference on the Science of Tai Chi and Qigong for Whole Person Health, Harvard Medical School, Boston, MA
Gloria Yeh	State of the science of Tai Chi for chronic cardiopulmonary disease: Advancing whole person health.	Invited Lecture (virtual)	Third International Taiji Science Forum, World Taiji Science Federation, Henan Polytechnic University, China

2023 FELLOWS ORAL PRESENTATIONS

PRESENTER	PRESENTATION TITLE	INSTITUTION/LOCATION
Wren Burton	Chiropractic care and fall prevention in older adults: What we know, what we can do, and steps we can take going forward.	American Chiropractic Association (ACA) Engage, Virtual
Wren Burton	Integrating chiropractic care and mind body training for the treatment of chronic nonspecific neck pain in nurses.	Association of Chiropractic Colleges Research Agenda Conference, New Orleans, LA
Wren Burton	Integrating chiropractic care and mind body training for the treatment of chronic nonspecific neck pain in nurses.	The Science of Tai Chi and Qigong as Whole-Person Health, Boston, MA
James Doorley	Coaching Generation Z athletes: Leveraging the art and science of motivational interviewing.	Northeastern University Athletics, Boston, MA
James Doorley	Integrating CBT and ACT to conceptualize and Treat post-concussive syndrome.	Neurorehabilitation Seminar, Department of Rehabilitation and Human Performance, Icahn School of Medicine at Mount Sinai, New York City, NY
James Doorley	Is surgery training too technical? Using performance psychology to help your head control your hands.	Division of Otolaryngology – Head and Neck Surgery Grand Rounds, Department of Surgery, UConn Health, CT
James Doorley	Nonpharmacological pain interventions: Novel approaches for acute and chronic pain management.	Tufts School of Dental Medicine Interprofessional Headache Grand Rounds, Boston, MA
James Doorley	Practical tips from stoicism on mindfulness and seeing reality clearly.	Minor League Red Sox Spring Training, Fort Meyers, FL
Heena Manglani	Physical activity and sedentary behavior as a signature of cognition in multiple sclerosis: A closer look at accelerometry metrics.	Society of Behavioral Medicine convention, Phoenix, AZ
Heena Manglani	The first year of multiple sclerosis: Identifying predictors of chronic emotional distress in patients and care partners.	International Neuropalliative Care Society, Virtual
Rachel Rosen	Development of a multilevel Bayesian model for predicting individual daily distress.	Association for Behavioral and Cognitive Therapy (ABCT), Seattle WA
Sarah Park	MIND and Mediterranean diet adherence in Parkinson's disease.	International Congress on Integrative Medicine & Health, Chicago, IL
Rachel Rosen	Using ecological momentary assessment to characterize dynamic patterns of e-cigarette use in adults planning to quit e-cigarettes.	30th annual meeting of the Society for Research on Nicotine and Tobacco (SRNT), Edinburgh, Scotland, UK

2023 FELLOWS POSTER PRESENTATIONS

PRESENTER	POSTER TITLE	INSTITUTION/LOCATION
Wren Burton	Integrating chiropractic care and mind body training for the treatment of chronic nonspecific neck pain in nurses.	Academic Consortium for Integrative Medicine and Health, Chicago, IL
Heena Manglani	Breaking the silos of psychiatry and neurology: Practical lessons from building and piloting an embedded psychology clinic in multiple sclerosis.	International Congress on Integrative Medicine and Health, Chicago, IL
Sarah Park	Heart rate variability biofeedback as adjunctive treatment of generalized anxiety disorder: A case report.	Bastyr University Research Symposium. Virtual
Sarah Park	The impact of a seven-week heart rate variability biofeedback protocol on skin severity, quality of life, and mental health in a proof-of-concept clinical case series of individuals with psoriasis.	Bastyr University Research Symposium. Virtual
Joseph Rosansky	Effects of mindfulness training on opioid use and anxiety during primary care buprenorphine treatment (MINDFUL-OBOT): A comparative effectiveness RCT.	International Society for Contemplative Research, San Diego, CA
Joseph Rosansky	Evaluating the feasibility and effects of a population-based mindfulness-oriented approach to mental wellness.	International Society for Contemplative Research, San Diego, CA
Rachel Rosen	Changes in dependence over time among dual users and exclusive smokers to quit among those with anxiety and/or depression.	Society for Research on Nicotine and Tobacco (SRNT), San Antonio, TX
Rachel Rosen	Cigarette and alternative tobacco product use among adult cancer patients enrolled in 10 ECOG-ACRIN therapeutic trials.	Society for Research on Nicotine and Tobacco (SRNT), San Antonio, TX
Rachel Rosen	E-cigarette use characteristics and among adult exclusive e-cigarette users with plans to quit e-cigarettes.	Society for Research on Nicotine and Tobacco (SRNT), San Antonio, TX
Rachel Rosen	Health communication describing the mental health benefits of quitting smoking is associated with increased motivation to quit among those with anxiety and/or depression.	Society for Research on Nicotine and Tobacco (SRNT), San Antonio, TX

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A cross-sectional study of inflammatory markers as determinants of circulating kynurenines in the Lung Cancer Cohort Consortium. Middtun Ø, Ulvik A, Meyer K, Zahed H, ... **Sesso HD**, et al. Sci Rep 2023;13(1):1011.

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