

**Curriculum Vitae**  
**Luana Colloca, MD, PhD, MS**  
**MPower Distinguished Professor and Director**

**Contact information**

University of Maryland Baltimore  
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PBO Center: <https://www.nursing.umaryland.edu/research/research-centers/placebo-beyond-opinions/>

**EDUCATION**

2002 MD Degree: University of Catanzaro Medical School, Italy (Summa cum Laude)  
2007 PhD Neuroscience, University of Turin Medical School, Italy (Summa cum Laude)  
2008 MS Bioethics, University of Turin, Italy (Summa cum Laude)

**POSTGRADUATE EDUCATION/TRAINING**

2007-2008 Post-doctoral Fellowship, Department of Neuroscience, Medical School of Turin, Italy  
2008-2009 Post-doctoral Fellowship, Brain Center, Karolinska Institute, Stockholm, Sweden  
2009-2011 Senior Research Fellowship, National Center for Complementary and Integrative Health (NCCIH) & Department of Bioethics, Clinical Center, National Institutes of Health, Bethesda, MD  
2011-2014 Research Fellowship, National Center for Complementary and Integrative Health (NCCIH) & National Institute of Mental Health, National Institutes of Health, Bethesda, MD  
2024 Faculty Leadership Development Program, University of Maryland, Baltimore, MD

**PROFESSIONAL POSITIONS**

2022-present Director, Placebo Beyond Opinions Center, University of Maryland School of Nursing, Baltimore, MD  
2021-present MPower Distinguished Professor, University of Maryland Baltimore, Baltimore, MD  
2021-present Professor, Department of Pain and Translational Symptom Science, School of Nursing (primary appoint.)  
2018-2021 Tenured Associate Professor, University of Maryland Baltimore, Baltimore, MD - Department of Pain and Translational Symptom Science, School of Nursing (primary appoint.)

- 2019-present Program Director, ICTR TL1 Training and Career Development Core University of Maryland School of Medicine
- 2015-present Honorary Professor, University of Sydney, Department of Psychology, Sydney Australia
- 2015-2018 Tenure-track Associate Professor, University of Maryland Baltimore, Baltimore, MD - Department of Pain and Translational Symptom Science, School of Nursing (primary appoint.)
- 2015-present University of Maryland Baltimore, Baltimore, MD - Department of *Anesthesiology*, School of Medicine (secondary appoint.)
- 2015-present Full faculty member of the Graduate Program in LifeSciences (GPILS), Program in Neuroscience (PIN) - University of Maryland Baltimore, Baltimore, MD
- 2016-present University of Maryland Baltimore, Baltimore, MD - Department of *Psychiatry*, School of Medicine (secondary appoint.)
- 2015-present University of Maryland Baltimore, Baltimore, MD - Excellence Center to Advance Chronic Pain Research Center for Advanced Pain Research
- 2016-present Research Sub-investigator (WOC), Veterans Affairs Maryland Health Care System
- 2016-2024 Associate Professor (Adjunct), Johns Hopkins University, Department of *Neurosurgery*, Baltimore, MD

### **CERTIFICATIONS**

- 2003-present Board of Physicians – Active License, Turin, Italy: #005449
- 2014-2018 Associate Professorship credentials (active, credentials): Physiology (05/D1)
- 2014-2018 Associate Professorship credentials (active, credentials): Neurology (06/D6)
- 2014-2018 Associate Professorship credentials (active, credentials): Psychology (11/E1)
- 2017-2023 Full Professorship credentials (active, credentials): Physiology (05/D1)

### **AWARDS AND HONORS**

- 2003 LegaltalianaMalattiePiramidaliedExtrapiramidali (LIMPE) Award
- 2005 Award of Associazione Italiana Studio Dolore (AISD)
- 2006 American Psychosomatic Society (APS) Award for Young Neuroscientist
- 2006 PsychoNeuroImmunology Research Society (PNIRS) Award for Neuroscientist
- 2008 Dubner International Research Prize – International Association for Study of Pain
- 2009 European Federation of IASP Chapter (EFIC)
- 2010 Gold medal for research – Italian Sport Federation (FCI)
- 2010 NIH Clinical Center High Performance Award
- 2011 NIH Clinical Center High Performance Award
- 2012 NIH Clinical Center High Performance Award
- 2016 Stephen B. Milam Young Investigator Award Temporomandibular Joint Ankylosis
- 2016 Patrick D. Wall International Young Investigator Award for Basic Science – International Association for Study of Pain (IASP), Yokohama, Japan  
<https://www.iasp-pain.org/resources/grants-awards/patrick-d-wall-young-investigator-prize-for-basic-science/>  
 - Featured in PAIN RESEARCH FORUM:  
<https://www.painresearchforum.org/forums/interview/74663-talking-science-placebo-analgesia-award-winning-young-pain-researcher-luana>
- 2017 UMSON School of Nursing Distinguished Scholarship Award
- 2018 Toekenningsbrief – Koninklijke Nederlandse Akademie Van Wetenschappen (KNAW)
- 2021 Inaugural MPower Distinguished Professorship Award – University of Maryland System. <https://www.umaryland.edu/president/letters-to-the-umb-community/announcing-the-mpower-professors.php>
- 2022 Gunn-Loke Lecture Award, University of Washington, Seattle USA.
- 2024 Chairman’s Special Achievement Team Award, Department of Medicine Awards Series, University of Maryland School of Medicine, Baltimore

- 2024 Mpower Award, Strategic Partnership Award
- 2024 **Research of the Year Award**, University of Maryland, Baltimore  
<https://elm.umaryland.edu/elm-stories/2024/Founders-Week-2024-Researcher-of-the-Year-Luana-Colloca-MD-PhD-MS.php>
- 2024 Giovan Giacomo Giordano-NIAF Lifetime Achievement Award for Ethics and Creativity in Medical Research
- 2024 Faculty Excellence in Post-doctoral Mentorship Award, University of Maryland, School of Medicine
- 2024 Dean Jane Kirschling Excellence in Leadership Award, University of Maryland, School of Nursing
- 2025 Chairman's Special Achievement Team Award, Department of Medicine Awards Series, University of Maryland School of Medicine, Baltimore

**EARLY CAREER TRAVEL GRANTS**

- 2010 Travel grant of International Association for the Study of Pain (IASP), Montreal, Canada
- 2010 Travel grant and scholarship of European College of Neuropsychopharmacology, Nice, France
- 2009 Financial aid of EFIC (European Federation of IASP Chapters), Lisbon, Portugal
- 2008 Travel grant Organization of Human Brain Mapping (OHBM), Melbourne, Australia
- 2008 Travel grant of International Association for the Study of Pain (IASP), Glasgow, Scotland
- 2007 Travel grant of Italian Society of Neuroscience (SINS), Verona, Italy
- 2007 Travel grant of Neuropathic Pain SIG (NeuPSIG) of the IASP, Berlin, Germany
- 2007 Travel grants of European Space Agency (ESA), Success Students, Cologne, Germany
- 2006 Travel grant of the ONASSIS Foundation, Heraklion, Crete
- 2006 Travel grant of PsychoNeuroImmunology Research Society (PNIRS), Miami, Florida
- 2005 Travel grant of European Space Agency (ESA), Success Students, Noordwijk, Netherlands

**ONGOING and PAST GRANTS**

**ACTIVE GRANTS**

- 2025-2026 Akintola T, **Colloca, L**, (MPIs)  
 Title: An Immersive Virtual Reality Intervention to Mitigate Opioid Misuse in Adults: A Feasibility and Acceptability Pilot Study  
 Total direct funding: \$41,000  
 Sponsor: Center for Addition Research, Education, and Service (CARES) Science to Systems Grant (SSG) program, University of Maryland School of Social Work  
 Project goals: The goal of this project is to prototype and test the effect on Virtual Reality in Opioid Misuse.
  
- 2024-2025 Murti S, **Colloca, L**, (MPIs)  
 Title: recoVRme – Virtual Reality to Reduce Pain and Promote Recovery  
 Total direct funding: \$75,000  
 Sponsor: UMB, Baltimore Life Science Discovery Accelerator, UM-BUILD  
 Project goals: Development of recoVRme - a computer application that uses smart watch data and ML/AI to predict if a VR environment will provide pain relief in real-time using any eXtended reality (XR) device.
  
- 2024-2029 **Colloca L**, TL1 Program-Director (10%) (Side PI / PI: Meredith Atkinson, JHU)  
 Sponsor: National Center for Advancing Translational Sciences (NCATS),  
**T32TR004928-01**

Title: *“Johns Hopkins institute for clinical and translational research”*

Total direct funding: \$4,309,115 (UMB sub-award)

Project goals: This project provides the unique opportunity to train the future generation of scientists in translational research. Translational research demands the skills of many professionals working together to address complex problems.

2024-2025

Carlisle K, Terhune, J, **Colloca, L**, (MPIs)

Title: Impact of Virtual Reality on Chemotherapy Induced Peripheral Neuropathy Pain: A Pilot Study

Total direct funding: \$25,000

Sponsor: Innovation Challenge Award, UMMC/UMB

Project goals: UMMS value discovery welcoming ideas for improved solutions and novel practices that advance health outcomes for our patients, families, or team members located across the Downtown and/or Midtown Campuses. This project aims to test feasibility and efficacy of Virtual reality in chemo-related neuropathic pain and other pain-related outcomes.

2023-2028

Colloca L, **co-I** (PI: Debra Burns)

Title: Music mechanisms and technologies network: Integrative models to address pain through music

Total direct funding: \$2.5M

Sponsor: National Center for Complementary & Integrative Health (NCCIH) of the National Institutes of Health (NIH), **1U24AT012602-01**

Project goals: The project will establish a collaborative network of scientists and clinicians from various disciplines to address major gaps in our understanding of music-based interventions (MBIs) in chronic pain. By bridging gaps in basic, applied, and clinical research, the project aims to optimize MBI research and accelerate its programs.

2022-2026

Colloca L, **PI** (in-kind, Distinguished Professorship Award)

*“MPower Distinguished Named Professorship”*

Total direct funding: \$50,000

Sponsor: MPower President Initiatives

Project goals: Creating new and boosting existing collaborations for pain research leveraging resources and collaborations between University of Maryland Baltimore and University of Maryland College Park.

2022-2024

Colloca L, Dorsey, SG, MPI (15%)

*“Secondary Analysis and Integration of Existing Data Related to Chronic Orofacial Pain and Placebo Effects”*

Total costs: \$424,875

National Institute of Dental Craniofacial Research (NIDCR), HEAL Initiative - **1R21DE032532**

Project goals: Omics markers of placebo responders in chronic pain patients.

2021-2026

Colloca L, **PI** (25%)

*Title: “Neural Mechanisms of Immersive Virtual Reality in Chronic Pain”*

Sponsor: National Center for Complementary & Integrative Health (NCCIH) of the National Institutes of Health (NIH), **R01 AT011347-01A1**

Total costs: \$3,094,000

Project goal: Investigating the physiological mechanisms of immersive virtual reality in chronic pain patients.

2019-2025 Colloca L, **PI** (35%)  
*Title: "Neural correlates of hypoalgesia driven by observation"*  
Sponsor: National Center for Complementary & Integrative Health (NCCIH) of the National Institutes of Health (NIH), **R01AT01033**  
Total costs: \$3,660,742  
Project goal: Investigating the brain mechanisms of hypoalgesia driven by observing analgesia induced in another individual using fMRI, EEG and EEG/fMRI.

### Completed grant projects

2016-2022 Colloca L, **PI** (35-20%)  
*Title: "Chronic orofacial pain: genetics, cognitive-emotional factors, and endogenous modulatory systems"*  
Sponsor: National Institute of Dental and Craniofacial Research (NIDCR), **1R01DE025946**  
Total direct costs: \$2,132,372  
Project goal: Develop a novel genetic, behavioral and imaging approach to determine the role of genetic variants on behavioral, psychological and neuronal mechanisms of expectancy-induced analgesia in TMD with a focus on deeper phenotyping of placebo responders and nonresponders.

2017-2024 Colloca L, co-Investigator (5%) – NCE  
*Title: "Comparative Effectiveness of Pain Cognitive Behavioral Therapy and Chronic Pain Self-Management within the Context of Opioid Reduction"*  
Sponsor: Patient-Centered Outcomes Research Institute (**PCORI- OPD-1610-37 007, PI: Darnall**)  
Total direct funding: \$8,808,607  
Project goals: Determine the effectiveness of two types of active behavioral pain management treatment classes in patients prescribed long-term opioids from primary care and pain clinics in four states in the western United States.

2017-2023 Colloca L, site-PI (in-kind, Director: Keller) - NCE  
*Title: "Novel Therapies to Reduce Opioid Use"*  
Sponsor: **MPowering the State Initiatives**  
Total direct costs: \$826,089 (Colloca's projects: \$109,000 –FY 2022)  
Project goals: Determine the physiological bases of immersive Virtual Reality as an adjuvant intervention to help reduce both clinical acute and chronic pain.

2018-2023 Colloca L, co-Investigator (8 %) (PI: Fred Lenz, JHU)  
*Title: "Networks for the Expectation of Pain"*  
Sponsor: National Institute of Neurological Disorders and Stroke (NINDS), **R01NS10928**  
Total direct funding: \$2,432,372  
Project goals: This project provides the unique opportunity to record local field potentials (LFP) directly from structures or modules in the brain involved in

processing of expectation of pain in patients with epilepsy.

- 2019-2024 Colloca L, TL1 Program-Director (10%) (PI: Daniel Ford, JHU/Stephen Davis, UMB)  
Sponsor: National Center for Advancing Translational Sciences (NCATS),  
**UL1TR003098**  
Title: *"Johns Hopkins institute for clinical and translational research"*  
Total direct funding: \$4,483,260 (UMB sub-award)  
Project goals: This project provides the unique opportunity to train the future generation of scientists in translational research. Translational research demands the skills of many professionals working together to address complex problems. The Johns Hopkins ICTR is poised to leverage our current services to benefit new partners who have extensive responsibility for the conduct of research and health care delivery in Maryland. Working together, we expect to have a measurable impact on translational research in Maryland.
- 2021-2022 Colloca L, PI (in-kind, donation)  
Title: *"3rd International conference of The Society for Interdisciplinary Placebo Studies SIPS - Harnessing placebo mechanisms for optimal pain management and treatment of alcohol and other drug use disorders"*  
Sponsor: Samueli Foundation  
Total direct funding: \$50,000  
Project goals: Support for Organizing the 3rd International conference of The Society for Interdisciplinary Placebo Studies (SIPS) and its deliverables.
- 2021-2022 Colloca L, PI (in-kind, donation)  
Title: *"3rd International conference of The Society for Interdisciplinary Placebo Studies SIPS - Harnessing placebo mechanisms for optimal pain management and treatment of alcohol and other drug use disorders"*  
Sponsor: Forschungsgemeinschaft - 3rd International Conference of the Society for Interdisciplinary Placebo Studies  
Total direct funding: \$65,000  
Project goals: Support for Organizing the 3rd International conference of The Society for Interdisciplinary Placebo Studies (SIPS) and its deliverables.
- 2020-2022 Colloca L, Seneviratne, MPI  
Title: *"3rd International conference of The Society for Interdisciplinary Placebo Studies SIPS - Harnessing placebo mechanisms for optimal pain management and treatment of alcohol and other drug use disorders"*  
Sponsor: NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM (NIAAA),  
**R13AA028424**  
Total direct funding: \$50,000  
Project goals: Organizing the 3rd International conference of The Society for Interdisciplinary Placebo Studies (SIPS) in placebo, pain and addiction
- 2018-2020 Colloca L, Gullapalli, MPI  
Title: *"Exploring the role of vasopressin in socially-induced hypoalgesia"*  
Sponsor: UMB Institute for Clinical and Translational Research (ICTR)  
Total direct funding: \$45,000  
Project goals: To determine how *vasopressin* modulates social observational learning of placebo analgesia.

- 2018-2019 Colloca L, Murthi, S, MPI (5.7%)  
*Title: "Development of Phone Based Applications to Relieve Traumatic Pain and Prevent Substance Use Related to Long-Term Use of Opioids"*  
 Sponsor: UMB Center for Addiction Research, Education, and Service (CARES)  
 Total direct funding: \$75,000  
 Project goals: To develop a phone application to prevent opioids abuse in pain patients and shape expectations of opioid intake needs.
- 2016-2018 Colloca L, Lessans S. and Gould T, MPIs (in-kind)  
*Title: "Ketamine-like effects and conditioning in a mouse model of neuropathic chronic pain"*  
 Sponsor: Center to Advance Chronic Pain Research (CACPR), UMB  
 Total direct costs: \$35,000  
 Project goal: Explore neural and genetics biomarkers of placebo analgesia in laboratory settings including new pilot studies on social learning and RNA gene expression and pain.
- 2016-2018 Colloca L, PI (in-kind)  
*Title: "Engagement of Chronic Pain Patients and Stakeholders for Obtaining Critical Feedback for Reducing Opioid Use"*  
 Sponsor: AHRQ (PCORI pilot grant), UMB  
 Total direct costs: \$7,500  
 Project goals: Engage patients and stakeholders for exploring barriers, concerns and fears towards opioid taper in non-cancer chronic pain management and collect preliminary data for a large-scale application on taper opioids.
- 2017-2018 Colloca L, multi-PI (Annabelle Belcher, in-kind)  
*Title: "Open-label dose-extending placebos as an adjunct to methadone treatment"*  
 Sponsor: Foundation for the Science of the Therapeutic Encounter (F-STE)  
 Total direct costs: \$25,000  
 Project goals: Explore the role of placebos given with methadone to minimize the escalation of methadone in patients suffering from addiction by comparing the impact of open-label dose-extending placebo to Treatment as Usual (TAU) on ultimate methadone dose achieved.

### **Intramural grants as an NIH Fellow**

- 2012-2014 (Colloca L, PI: 75%)  
*Title: "Neurobiology of placebo analgesia"*  
 Sponsor: IRP-NCCIH – NIH Intramural research support  
 Total direct costs: \$740,000  
 Project goals: Determine the role of vasopressin agonists to boost pharmacologically placebo effects while targeting sexually dimorphic responses.
- 2009-2011 (Colloca, PI: 25%)  
*Title: "Placebo analgesia and social learning"*  
 Sponsor: European Federation IASP Chapter (EFIC)  
 Total direct costs: €25,000  
 Project goals: Explore the effects of social observation on placebo analgesia

by testing the hypothesis that observing pain relief in another person induces expectancy of analgesia and therefore placebo analgesic effects that are comparable to those observed after direct conditioning.

### **Grants as a post-doctoral student**

- 2009-2011 (Colloca, PI: 25%)  
*Title: "Placebo analgesia: modulation induced by oxytocin"*  
Sponsor: Early Research Grant – International Association Study of Pain (IASP)  
Total direct costs: \$20,000  
Project goals: Explore the possibility to manipulate pharmacologically the size of placebo analgesic effects by administering intranasal oxytocin.
- 2009-2011 (Colloca L, PI: in-kind)  
*Title: "Open-hidden administration of duodopa in Parkinsonian patients"*  
Sponsor: Ricerca Finalizzata—Regione Piemonte, Italy  
Total direct costs: €10,000  
Project goals: Explore the effects of an open/hidden administration of Levodopa in Parkinson patients by testing the hypothesis that awareness about a treatment increases the effects of Levodopa.
- 2008-2009 (Colloca L, PI: in-kind)  
*Title: "Placebo analgesia in schizophrenic patients"*  
Sponsor: Ricerca Finalizzata—Regione Piemonte, Italy  
Total direct costs: €12,000  
Project goals: Explore the effects of placebo analgesia in schizophrenic patients by test the hypothesis that schizophrenic patients have smaller placebo effects as compared to matched controls.
- 2007-2009 (Colloca L, PI: 10%)  
*Title: "Placebo analgesia: Brain correlates"*  
Sponsor: Collaborative Research Grant – International Association Study of Pain (IASP)  
Total direct costs: \$15,000  
Project goals: Explore the effects of neural placebo analgesia by testing the hypothesis that placebo analgesia following a short conditioning results in no neural changes in sensory-discriminative areas.

### **EDITORIAL SERVICE**

- 2023-present Field Editor (Placebo) for **Eur Journal of Pain**  
2022-present Field Editor (Neuroscience) for **Journal of Pain**
- 2016-2027 Associate Editor for **PAIN** (Psychology)  
2016-2024 Associate Editor for **PAIN Reports**

### **1. LEADERSHIP ROLES FOR THE INTERNATIONAL ENTITIES**

- **International Association for Study of Pain (IASP)**

2022-2026

Re-elected **Chair** Pain and Placebo Special Interest Group - International Association for Study of Pain (IASP)

2022-2025 IASP Publications Committee Member

2022-2026 Treasurer - Society for Interdisciplinary Placebo Studies (SIPS)

2017 Advisor member, Presidential Task Force on Nominations and Voting for the International Association for Study of Pain (IASP)

- **Society for Interdisciplinary Placebo Studies (SIPS)**

2015-present Steering and board Member, Society for Interdisciplinary Placebo Studies (SIPS)

2011-present International Advisor, German Research Initiative on Placebo and Nocebo (FOR-1328)

2011-present International Advisor, Program in Placebo Studies & Therapeutic Encounter (PiPS) at the Harvard Medical School (HMS), Beth Israel Deaconess Medical Center, Boston, MA USA

2013-present Board Member of the International Special Interest PAIN Group (SIG), IASP

## **2. LEADERSHIP ROLES FOR UMB and UMSON**

2016-2020 Member of the Master Curriculum Committee, UMSON, University of Maryland, Baltimore

2017-present Member of the PhD Curriculum Committee, UMSON, University of Maryland, Baltimore

2017-present IRB Voting Member at the University of Maryland Inter Professional Schools, Baltimore

2018-2019 Member of the APT, UMSON, University of Maryland, Baltimore

2018-present UMSON – Chair (one time) and ad-hoc member for a faculty search committee

2019-present UMSON – ad-hoc member of a Faculty search committee

2021- present UMSON – Member of the APT, UMSON, University of Maryland, Baltimore

2022-present UMSON – **Chair, Appointment Promotion Tenure, UMSON, University of Maryland, Baltimore**

2020-2022 Member of the Organizing Committee for the International meeting on Placebo Effects for the Society for Interdisciplinary Placebo Studies (SIPS) hosted at University of Maryland, Baltimore, USA, May 26-28, 2021

<https://sips-conference.com/home>

2024-present GPILS Graduate Advisory Committee - Member

## **DIRECTOR of Placebo Beyond Opinions (PBO) Center at School of Nursing**

### **Guest Lectures as part of the Placebo Beyond Opinion (PBO) Center**

#### **2024-2025 PBO Series**

\*Panel: **Dr. Andrew Coop** (UMSOP), **Dr. Maurizio Fava** (Harvard), **Dr. Patrick Finan** (UVA): “Psychedelics in Pain Management: Exploring Therapeutic Potential, Pharmacology, and Clinical Considerations” (virtual), Dec 18, 2024

\***Dr. Massieh Moayed**, University of Toronto: “The Contribution of Endocannabinoids to Pain Sensitivity and Modulation” (hybrid), March 13, 2025

\***Dr. Steven Cohen**, Northwestern University: “Challenges in design and interpretation of clinical trials in pain medicine” (hybrid), March 24, 2025

\***Dr. Laura Simons**, Stanford University: “Innovative Approaches for the Treatment of Chronic Pain in Youth.” (This event was co-sponsored with the CACPR Center) (hybrid), May 15, 2025

### **2023-2024 PBO Series**

1. Barbara Resnick, University of Maryland School of Nursing, Baltimore, USA. Feb 21
2. Christopher Eccleston, University of Bath, London, UK. March 25
3. Fadel Zeiden, University of San Diego, USA. May 3
4. Liane Schmidt, INSERM, Paris, France. May 13

### **Key note Lecture**

1. Wayne Jonas, MD, CEO Healing Foundation. **Translating the Science of Placebo into Medical Practice.** Dec 13, 2023  
To Launch the OUP book with media coverage: <https://www.nursing.umaryland.edu/news-events/news/placebo-beyond-opinions-center-lecture-posit-places-that-placebos-can-improve-almost-any-condition-you-can-name/>

### **2022-2023 Series**

5. Tor Wager, PhD, Diana L. Taylor Distinguished Professor, Director of Brain Imaging Center, Dartmouth College. **Pain: Neural Pathways, Biomarkers and Interventions.** March 30, 2023
6. Cheryl Stucky, PhD, Pain Division of the Neuroscience Research Center, Medical College of Wisconsin. **Beyond the Barrier: Skin Cells Actively Participate in Pain.** Thursday, Apr. 20, 2023
7. Przemysław Bąbel, PhD, Jagiellonian University, Institute of Psychology, Pain Research Group. **(Un)learning Pain: Learning Mechanisms of Placebo Effects in Pain.** Tuesday, May 23, 2023
8. Gadi Gilam, tSCAN Lab, Faculty of Dental Medicine, Hebrew University of Jerusalem, Israel, **The experience of pain and emotion: meeting of body, brain and mind.** Thursday, June 15, 2023

### **ADDITIONAL NATIONAL AND LOCAL (NIH, UMSON & UM SCHOOLS) ACTIVITIES**

- 2012-2014 Ad-hoc On-Call consultant, Department of Bioethics, Clinical Center, National Institutes of Health, Bethesda
- 2009-2014 Ad-hoc IRB Consultant – IRB, National Institutes of Health, Bethesda
- 2015-present Organizer of the 2015 retreat of UM Graduate Program in Life Sciences (GPILS), Program in Neuroscience (PIN)
- 2015-present Faculty Committee Member for selecting the 2015, 2016, 2017 UM PhD students
- 2015-present Speaker for the Journal Clubs for the UMB GPILS and CACPR
- 2015-present Faculty poster judge for the 2015 and 2016 UM Maryland Neuroimaging Retreat
- 2015-present Regular Faculty examiner for qualifying exams for the GPILS, UM, Baltimore
- 2015-present Evaluator for faculty positions within the UMSON
- 2015-present Ad-hoc Grant Reviewer - UMB School of Nursing DRIFT grants
- 2015-present Ad-hoc Grant Reviewer - Biomedical Research Innovation Program, University of Toledo, USA
- 2015-present Ad-hoc Grant Reviewer - Internal Seed Grant mechanism, University of Kentucky, USA
- 2016-present Ad-hoc Grant Reviewer - Pi Chapter Doctoral Student and Practice Grants
- 2016-present Panelist - National Youth Leadership Forum: Medicine, UMColege Park
- 2017-present Reviewer - UM MPowering the State, Scholars Program (UMSON & UMSOM)
- 2017-present Reviewer - NRSA application at SON and SOM (GPILS)

- 2017-present Mentor - Foundations of Research and Critical Thinking (FRCT) UMB School of Medicine Course for Medical Students
- 2018- present K99/R00 reviewer panel member at University of Maryland
- 2018-present Member of UMB Institutional Review Board (IRB)
- 2018-present Member of the PhD Curriculum Committee, School of Nursing, University of Maryland, USA
- 2018-present Member of the Program in Neuroscience (PIN) seminar series speakers review committee, School of Medicine, University of Maryland, US
- 2018-present Coordinator of the PAIN INTEREST GROUP seminar series across Schools at UMB for the Center to advance chronic pain research (CACPR) with Feng Wei (SOD)
- 2019-present Mentor - Conway Scholar program, School of Nursing, University of Maryland, Baltimore, USA
- 2019-present Member APT committee, School of Nursing, University of Maryland, Baltimore, USA
- 2019-present Panellist for grant writing class to students and postdocs who are going to apply for an F or K grants at University of Maryland, Baltimore, USA
- 2021-present Center for Advancing Point of Care Technologies, University of Massachusetts Medical School.

### **3.SERVICE TO THE SCIENTIFIC COMMUNITY**

#### **a. FEDERAL GOVERNMENT ADVISORY COMMITTEES**

- 2016-present Ad-hoc Study Section Member - National Center for Complementary and Integrative Health (NCCIH) - **Loan Repayment Program**
- 2018 Ad-hoc Study Section Member – NCCIH – Special Emphasis Panel “**Training and Research grants**” (F, K, R training grants).
- 2017-present Ad-hoc Study Section Member - Somatosensory and Chemosensory Systems – National Institutes of Health (NIH) ZRG1 IFCN N 50 ME/CF (**U54**)  
Somatosensory and Chemosensory Systems – National Institutes of Health (NIH) ZRG1 IFCN N 50 ME/CF (**K24**)  
Somatosensory and Chemosensory Systems – National Institutes of Health (NIH) ZRG1 IFCN N 50 ME/CF (**R01/R21**)  
Somatosensory and Chemosensory Systems – National Institutes of Health (NIH) ZRG1 IFCN N 50 ME/CF (**P01**)
- 2017-present Ad-hoc Veterans Affairs Scientific Merit Study Section Panelist – **NURB**
- 2017-present Ad-hoc Study Section Panelist - Somatosensory and Chemosensory Systems – National Institutes of Health (NIH) ZRG1 IFCN N 50 ME/CF
- 2019-present Ad-hoc Study Section Panelist - **2020/01 ZRG1 F03B-R (20) Fellowships**: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience
- 2019-present Ad-hoc Study Section Panelist – NIDA/NIH “**HEAL Initiative: America’s Startups and Small Businesses Build Technologies to Stop the Opioid Crisis**” Start-up small business
- 2020-present Ad-hoc Study Section Panelist - **VA-ORD** Merit Reviews Rehabilitation Research and Development Service (RR&D) Scientific Merit Review Board subcommittee for Spinal Cord Injury/Disorders & Neuropathic Pain
- 2020-present Ad-hoc Study Section Panelist - NCCIH/NIH **Loan Repayment Program Review panel**
- 2020-present Ad-hoc Study Section Panelist - NCCIH/NIH **Training and Education Review Panel (ZAT1 SM(55))**
- 2020-present Ad-hoc Study Section Panelist - **R33/R61 HEAL review**
- 2020-present Ad-hoc Study Section Panelist - **Behavioral Medicine, Interventions and Outcome (BMIO) Study Section**

- 2021-present Ad-hoc Study Section Panelist - **Center for Advancing Point of Care Technologies (CAPCaT)**, Boston, USA. CAPCaT was established with support from the National Heart, Lung, and Blood Institute (NHLBI) and the National Center for Complementary and Integrative Health (NCCIH)
- 2021-present ZAT1 PS(05) **NCCIH Training and Education Study Section**
- 2021-present **HEAL Initiative: America's Startups and Small Businesses Build Technologies to Stop the Opioid Crisis**
- 2021-present Biobehavioral Medicine and Health Outcomes (**BMHO**) Study Section - - Risk, Prevention and Health Behavior Integrated Review Group
- 2021-present **NIDCR Clinical Studies**
- 2021-present **ZAT1 PS(05) Special Emphasis Panel NCCIH Training and Education Review Panel (CT)**
- 2022-present **HEAL Initiative: Non-addictive Analgesic Therapeutics Development** [Small Molecules and Biologics] to Treat Pain (UG3/UH3 Clinical Trial Optional)
- 2022-present **ZRG1 F03B-L (20) Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience**

**b. INTERNATIONAL NON-FEDERAL-RELATED ACTIVITIES**

- 2011-present International Grant Reviewer for: Austrian Science Fund, Sensengasse 1, 1090 Vienna, Austria, <http://www.fwf.ac.at/en/index.asp>
- 2011-present International Grant Reviewer for: Poland: National Science Centre (Narodowe Centrum Nauki - NCN); <http://www.ncn.gov.pl>
- 2013-present International Grant Reviewer for: Research Council, United Kingdom, MRN, <http://www.rcuk.ac.uk>
- 2013-present International Grant Reviewer for: Arthritis Research - United Kingdom <http://gt.arthritisresearchuk.org/>
- 2013-present International Grant Reviewer for: Flanders (FWO) Public Utility Foundation, Belgium - <http://www.fwo.be/en/fellowships-funding/research-grants/research-grant/regulations-for-research-grant/>
- 2014-present International Grant Reviewer for: ALW Veni, NWO division Earth and Life Science, The Netherlands - <http://www.nwo.nl/en/funding/our-funding-instruments/nwo/innovational-research-incentives-scheme/veni/index.html>
- 2015-present International Grant Reviewer for: KWF Kankerbestrijding (Dutch Cancer Society), The Netherlands - <https://www.kwf.nl/english/pages/the-organisation.aspx>
- 2015-present International Grant Reviewer for: Research Grants Council, Hong Kong, China - <http://www.ugc.edu.hk/eng/rgc/index.htm>
- 2015-present International Grant Reviewer for: U.S.- Israel Binational Science Foundation, Israel - [www.bsf.org.il](http://www.bsf.org.il)
- 2015-present International Grant Reviewer for: National Institute for Health Research (NIHR) School for Primary Care Research (SPCR)- EVERITT – Oxford, United Kingdom
- 2015-present External reviewer for: Fellowship of the Academia of Health and Medical Science – Melbourne, Australia
- 2015-present International Grant Reviewer for: Multiple Sclerosis Society – United Kingdom, <https://www.mssociety.org.uk/>
- 2020-present International Grant reviewer for: Swiss National Science Foundation (SNSF), Switzerland <http://www.snsf.ch>
- 2020-present The Louise and Alan Edwards Foundation – Canada

## **REVIEWER SERVICE for JOURNALS**

I have reviewed peer-review manuscripts for the following journals: American J Psychiatry; BMJ; Current Biology; Current Directions in Psychological Science; European Journal of Pain; Journal of Pain; Lancet; The Lancet Neurology; The Lancet Psychiatry; Nature Reviews Gastroenterology; Pharmacogenomics; PLoS Biology; PLoS ONE; PAIN; PAIN Reports; Pediatrics; PNAS; Journal of Experimental Psychology; JAMA; Journal of Dental Research; Scientific Reports; Psychotherapy and Psychosomatics; Trends in Molecular Medicine; New England Journal of Medicine *among other journals.*

## **INTERNATIONAL MEETING ORGANIZATION/CHAIR**

1. Minisymposium 'Placebo analgesia' at the Society of Neuroscience November 12-16, 2011, Washington, DC
2. Symposium 'PLACEBO ANALGESIA AND NOCEBO HYPERALGESIA: FROM BENCH TO BEDSIDE' at the 14th World Congress on Pain®, August 27-31, 2012, Milan, Italy
3. International meeting 'Using placebo responses in clinical practice: Is there a there, there? What do we need to know?' at the National Institutes of Health, Jan 19-20, 2012, Bethesda, MD
4. Panel workshop 'Placebo analgesia: Psychological and neurophysiological aspects' at NCDEU 2013 53rd Annual Meeting, May 28-31, 2013, Westin Diplomat, Hollywood, Florida
5. Topical workshop 'Placebo Analgesia: Understanding the mechanisms to target better therapeutic strategies' at 15th World Congress on Pain October 6-11, 2014, Buenos Aires, Argentina
6. Placebo Special Interest Group, Topical meeting on Placebo Analgesia (SIP, IASP), Yokohama, Japan September 27, 2016, Japan
7. International meeting on Placebo Effects (SIPS), Leiden, The Netherland, April 1-4, 2017
8. International meeting on Placebo Effects (SIPS), Leiden, The Netherland, July 6-9, 2019
9. 3rd International Conference of the Society for Interdisciplinary Placebo Studies (SIPS) -- Harnessing placebo mechanisms for optimal pain management and treatment of alcohol and other drug use disorders. Virtual conference hosted by the University of Maryland, Baltimore U.S.A., 26-28 May 2021  
<https://sips-conference.com/home>
10. PAIN and PLACEBO SIG, International Association for Studies of Pain (IASP), Pre-conference workshop. Amsterdam, The Netherland. Aug 5, 2024

### **Placebo, Nocebo & Pain Mechanisms – Common Themes and Future Opportunities**

Tor Wager: Parsing Dual, Opposing Roles of Expectation on Pain Pathways

Luana Colloca: Expectation Versus Placebo Effects on Chronic Pain Outcomes

### **Frameworks for Application of Placebo and Nocebo Effects at the Bedside**

Lene Vase: Placebo and Expectation Affects in Alzheimer Diseases

Regine Klinger: Enhancing Pain Management for Patients: Leveraging Expectations and Placebo Mechanisms In Communication

### **Placebo & Nocebo Effects for the Pain Management Educator - Towards a Curriculum**

Andrea Evers: Placebo Research: Time for Launching New Curricula in Education and Pain

Ulrike Bingel: From Research to Advocacy: Exploring the TRR Network's Impact on Patients

Moderator: Damien Finniss

## **AD-HOC CONSULTANCY**

2015-2016 Advisor for developing educational tools for placebo and nocebo effects in the context of pain-related Randomized Clinical Trials (RCTs) - EMMI Solution Inc.

2016 Ad-hoc Consultant for EGG with educational talks on placebo and pain  
 2019-present Ad-hoc Expert Consultant for Averitas Pharma for study design and neuropathic pain  
 2019-present Expert Witness for the Department of Justice, U.S. Attorney's Office  
 2020-2021 Consultant for Florida Atlantic University  
 2020 Consultant for Integrity Continuing Education by Pfizer.  
 2020-2023 Consultant for Chiesi Pharmaceutical company  
 2024-present Merz Migraine Trials Placebo Response Reduction Concept Paper/advisor  
 2024-present C O G N I V Inc. Health and life Sciences

### **TASK-FORCE SERVICE AT UMB DURING THE COVID-19 PANDEMIC**

1. Member - the UMB Human Research Covid-19 Special Research Task Force for the President
2. Member - COVID-19 Study Section – pre-IRB evaluation
3. Expert/Reviewer for the COVID-19 round of ICTR ATIP Grant Award Study Section

### **ORGANIZER OF SEMINARS FOR UM SCHOOLS & CACPR**

1. **Giandomenico Iannetti**, MD, PhD –University College London, Neuroscience and Behaviour Laboratory, Rome, Italian Institute of Technology (IIT) - *“From pain to defensive actions: saliency detection as a reactive process”* UMSON, Feb 11, 2019
2. **Beth Darnall**, PhD –Stanford University, Palo Alto, USA - *“Applying Psychological Science for Pain Relief and Opioid Reduction”* UMSON, Feb 9, 2018
3. **Louis Sharpe**, PhD – University of Sydney, Sydney, Australia – *“Future Directions in the Psychosocial management of Pain”* UMSOD, June 22, 2017
4. **Thomas Carlson**, PhD – University of Sydney, Sydney, Australia *“The brain as its own decoder: predicting behavior from the geometrical structure of brain representations”* UMSON, Feb 23, 2017
5. **Johan Vlaeyen**, PhD - University of Leuven, Belgium *“FEAR OF PAIN: Acquisition, Generalization and Extinction”* UMSON, May 31, 2016
6. **Ben Colagiuri**, PhD - University of Sydney, Sydney, Australia *“Placebo and nocebo effects: From nausea to pain”* SON, Aug 19, 2015
7. **Przemyslaw Babel**, PhD - Jagiellonian *University*, Kraków, Poland *“The role social observational learning in placebo analgesia and nocebo hyperalgesia”* Aug 12, 2015

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**Google Scholar** -- CITATIONS: **21648**

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3. Benedetti F, **Colloca L**, Lanotte M, Melcarne A, Torre E, Bergamasco B, Lopiano L. Autonomic and emotional responses to open-hidden paradigm to stimulation of subthalamic region. **Brain Research Bull** 2004, 63, 203-211 (*IMPACT FACTOR*: 3.44)
4. Lanotte M, Lopiano L, Torre E, Bergamasco B, Colloca L, Benedetti L. Expectation enhances autonomic responses to stimulation of the human subthalamic limbic region. **Brain Behav Immun** 2005;19(6):500-9 (*IMPACT FACTOR*: 6.03)
5. **Colloca L**, Benedetti F, Pollo A. Repeatability of autonomic responses to pain anticipation and pain stimulation. **Eur J Pain** 2006 10(7):659-65 (*IMPACT FACTOR*: 3.18)
6. **Colloca L**, Benedetti F. How prior experience shapes placebo analgesia. **PAIN** 2006; 124 (1-2):126-33 (*IMPACT FACTOR*: 6.029; ranking 2/31 in Anesthesiology)
7. **Colloca L**, Benedetti F, Bergamasco B, Vighetti S, Zibetti M, Ducati A, Lanotte M, Lopiano L. Electroencephalographic responses to intraoperative subthalamic stimulation. **Neuroreport**, 2006; 17(14):1465-8 (*IMPACT FACTOR*: 1.34)
8. Benedetti F, Pollo A, **Colloca L**. Opioid-mediated placebo responses boost pain endurance and physical performance – Is it doping in sport competitions? **J Neurosci**, 2007; 27(44):11934-11939 (*IMPACT FACTOR*: 6.07)
9. **Colloca L**, Sigaud M, Benedetti F. The role of learning in the nocebo and placebo effect. **Pain**, 2008; 136:211-218 (*IMPACT FACTOR*: 6.029)
- \**Highlighted in*: Petrovic P. Placebo and nocebo hyperalgesia – Two sides of the same coin? **Pain** 2008 May;136(1-2):5-6
10. **Colloca L**, Tinazzi M, Recchia S, Le Pera D, Fiaschi A, Benedetti F, Valeriani M. Learning potentiates neurophysiological and behavioral placebo responses. **PAIN**, 2008, 139:306-314 (*IMPACT FACTOR*: 6.029)
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12. **Colloca L**, Benedetti F. Placebo analgesia induced by social observational learning. **PAIN**, 2009, 144:28-34 (*IMPACT FACTOR*: 6.029)
13. \**Highlighted in* - Robinson ME, Price DD. Placebo analgesia: Widening the scope of measured influences. **Pain** 2009;144(1-2):5-6  
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14. Zibetti M, Rizzi L. **Colloca L**, Cinquepalmi A, Angrisano S, Castelli L, Lanotte M, Lopiano L. Probable REM sleep behavior disorder and STN-DBS outcome in Parkinson's disease. **Parkinsonism Relat Disord** 2010 May;16(4):265-9 (*IMPACT FACTOR*: 3.93)
15. **Colloca L**, Petrovic P, Wager TD, Ingvar M, Benedetti F. How the number of learning trials influences placebo and nocebo response. **PAIN** 2010; 151:430-439 (*IMPACT FACTOR*:

6.029)

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19. Petersen GL, Finnerup NB, **Colloca L**, Amanzio M, Price DD, Jensen TS, Vase L. The magnitude of nocebo effects in relation to pain: A systematic review. **PAIN** 2014; pii: S0304-3959(14)00195-X. doi: 10.1016/j.pain.2014.04.016 (*IMPACT FACTOR: 6.029*)
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102. doi: 10.1007/s00213-019-05347-4. Epub 2019 Aug 17. \*co-last author (*IMPACT FACTOR: 3.424*)
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2. **Colloca L.** (solo Editor). Placebo and Pain Research. Theme Issue for **PAIN Reports**. May/June Volume 2019. <https://journals.lww.com/painrpts/Pages/currenttoc.aspx>
3. Weimer K, Enck P, Dodd S. **Colloca L.**, (editors) (2020). Placebo and Nocebo Effects in Psychiatry and Beyond. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88966-048-3  
<https://www.frontiersin.org/research-topics/7727/placebo-and-nocebo-effects-in-psychiatry-and-beyond> -- [39 articles; 144 authors]
4. Seneviratne C, Noel J, Franklin P, **Colloca L.** (editors). Harnessing Placebo Mechanisms for Optimal Pain Management and Treatment of Alcohol and Other Drug Use Disorders. *Frontiers in Psychiatry, Psychological Therapy and Psychosomatics*  
<https://www.frontiersin.org/research-topics/22344/harnessing-placebo-mechanisms-for-optimal-pain-management-and-treatment-of-alcohol-and-other-drug-use-disorders>

#### **Conference PROCEEDINGS**

1. Seneviratne C, Noel J, Franklin P, **Colloca L.** 3rd International Conference of the Society for Interdisciplinary Placebo Studies (SIPS): Harnessing Placebo Mechanisms for Optimal Pain Management and Treatment of Alcohol and Other Drug Use Disorders. Publisher: **Frontiers Media SA**; ISBN: 978-2-88971-003-4; Product Name: Frontiers Abstract Book (pages 347)  
[https://www.frontiersin.org/books/3rd International Conference of the Society for Interdisciplinary Placebo Studies SIPS Harnessing/5009](https://www.frontiersin.org/books/3rd%20International%20Conference%20of%20the%20Society%20for%20Interdisciplinary%20Placebo%20Studies%20SIPS%20Harnessing/5009)

#### **PLENARY, KEYNOTE, GRAND ROUNDS LECTURES (INVITED)**

1. **The Placebo effect: Neurobiological and psychological aspects** –Invited Lecture for Grand Rounds Lecture at the University of Michigan, Department of Psychiatry, Ann Arbor, March 23, 2011 (50 min)

2. **The science of placebo** –Invited Lecture for the Grand Rounds Series Lectures at NCCAM, NIH, Bethesda, May 9, 2011 (50 min)
3. **How placebo and nocebo responses are formed: contribution of verbal suggestions, conditioning, and social learning** - Chair and speaker at the topical workshop - PLACEBO ANALGESIA AND NOCEBO HYPERALGESIA: FROM BENCH TO BEDSIDE at 14th World Congress on Pain®, August 27-31, 2012 in Milan, Italy (30 min)
4. **Placebo analgesia: Psychological and neurophysiological aspects** - Chair and speaker at the Panel workshop - Predicting Placebo Responsiveness: A Psychological, Neurophysiological And Neurobiochemical Approach - at NCDEU 2013 53rd Annual Meeting, Westin Diplomat, Hollywood Florida, May 28-31, 2013 (30 min)
5. **Re-evaluating the placebo effect in medicine.** NIH Clinical Center Grand Rounds for Clinical Fellows Series, Aug 21, 2013 (45 min) <http://videocast.nih.gov/summary.asp?Live=12968>
6. **Ethical considerations and limitations of placebo use in research and practice.** State-of-the-art Invited Lecture at the Placebo effekte in der Physiotherapie meeting, Waiblingen, Germany, Nov 23, 2013 (45 min)
7. **Placebo Analgesia: Understanding the mechanisms to target better therapeutic strategies.** Chair and speaker of the topical workshop on Placebo, 15th World Congress on Pain, Buenos Aires, Argentina, October 6-11, 2014
8. **Placebo and nocebo: Are they two sides of the same coin?** Plenary Lecture, French Chapter of IASP (SFETD), 14th Congress, City of Toulouse, France, November 20-21, 2014
9. **Placebo research: Transferring mechanisms to clinical applications.** Keynote Invited Lecture at the 7<sup>th</sup> Scientific Meeting of the DFG Research. Hamburg, Germany, Feb 4, 2015 (45 min)
10. **Placebo and Pain: An exploration of research and clinical findings.** Plenary Lecture, European Pain Federation (EFIC), Vienna, Austria, September 2-5, 2015 (30 min)
11. **Placebo and nocebo effects in the area of pain.** Keynote Lecture, Institute of Medical Psychology, University of Munich, Munich, Sept 9, 2015 (45 min)
12. **Pain, Placebo and Nocebo,** Pain Grand Rounds, Walter Reed National Military Medical Center, Bethesda, MD Dec 15, 2015 (45 min)
13. **When expectations reduce pain: Understanding the neurobiological mechanisms,** Neurology Grand Rounds and BSRCU seminar series, University of Maryland School of Medicine, Feb 3<sup>rd</sup>, 2016 (20 min)
14. **Expectancy-induced analgesia: Neurobiological and translational aspects.** Grand Rounds Lecture, Stanford Pain Division, Palo Alto, California, Aug 15, 2016 (75 min)
15. **Placebo and nocebo mechanisms of pain modulation: A mechanism-based approach to maximizing analgesia and minimizing hyperalgesia.** Chair and speaker - IASP Workshop

sponsored by the Placebo SIG IASP, Yokohama, Japan, Sept 27, 2016 (90 min)

16. **The placebo phenomenon: From clinical trial designs to laboratory research.** SON Grand Rounds Lecture, University of Maryland Baltimore, Nov 16, 2016 (60 min)

17. **The power of Expectancies: Unraveling the Neurobiological mechanisms -** Interprofessional Pharmacology Lecture Series sponsored by the University of Maryland, The Founding Campus – University of Maryland Baltimore Feb 14, 2017 (60 min)

18. **Dose-extending placebos: Clinical and ethical aspects.** Interprofessional Pharmacology Lecture Series sponsored by the University of Maryland, the Founding Campus – University of Maryland Baltimore, April 18, 2017 (60 min)

19. **From learning mechanisms to expectancy violation: Understanding placebo and nocebo effects in pain research.** WEBINAR, Pain Research Forum, April 26, 2017 (60 min) (moderator: Tor D. Wager)

20. **Placebo and Pain.** Plenary Lecture at the American Academy of Orofacial Pain (AAOP) 41<sup>st</sup> Scientific Meeting May 4-7, 2017 (60 min)

21. **Somatosensory systems, expectancy and placebo effects.** Grand Rounds Lecture, University of Maryland School of Medicine, Department of Otorhinolaryngology Head and Neck Surgery, Baltimore, Maryland, July 13, 2017 (45 min)

22. **Placebo and nocebo effects: Implications for Clinical Trials and Clinical aspects.** Plenary lecture. 18th Congress of the International Headache Society (IHC), Vancouver, Canada, September 10, 2017 (20 min)

23. **Placebo effects and Learning principles.** Keynote Lecture, International Summer School: Emotional learning and memory in health and psychopathology University of Leuven, Belgium. September 14, 2017 (90 min)

24. **Nocebo effects: How expectancies can make you sick.** LIBC Sylvius Lecture, University of Leiden, The Netherlands. Sept 15, 2017 (45 min)

25. **When beliefs make you sick: What is the nocebo effect? –** Interprofessional Pharmacology Lecture Series sponsored by the University of Maryland, the Founding Campus – University of Maryland Baltimore, Sept 19, 2017 (60 min)

26. **Nocebo effects: Preventing Unintended and harmful side effects -** Interprofessional Pharmacology Lecture Series sponsored by the University of Maryland, the Founding Campus – University of Maryland Baltimore, Nov 14, 2017 (60 min)

27. **Implication of pain-related placebo effects for clinical practice.** Plenary Lecture 2018 Mexican Pain Forum. Mexico City, Mexico, June 8, 2018 (60 min)

28. **Opioid and Substance Use Disorders: new approaches from the frontlines of research, nursing, and social work.** Franklin Dean Lecture, October 25, 2018 (20 min)

29. **Are placebos the solution? Tackling the opioid epidemic in the next few decades.** TEDx talk University of Maryland, Baltimore, Nov 9, 2018 (12 min)  
<https://www.youtube.com/watch?v=XPtKdtF05s8>
30. **Manifestations and Mechanisms of Nocebo Effects in the Treatment of Pain.** Keynote Lecture. The Danish Society for Pain and Physical Therapy, and The Danish Pain Society, Aarhus, Nov 23, 2019 (*online call conference*) (45 min)
31. **Ethics of placebos and placebo effects.** Plenary Lecture 2019 XI Mexican Pain Forum. Mexico City, Mexico, June 7, 2019 (60 min)
32. **Mechanisms of observationally-induced pain modulation: from placebo effects to virtual reality.** Keynote Lecture 2019 2nd official Society for Interdisciplinary Placebo Studies (SIPS) conference on placebo studies. July 7, 2019 (60 min)
33. **The Goodies: Endogenous opioids and placebo effects.** Medicine Grand Rounds Lecture, University of Maryland, Sept 4th, 2019 (45 min)
34. **The neurophysiology of placebo and nocebo effects.** Rheumatology Grand Rounds, University of Maryland, Baltimore Sept 10, 2019 (45 min)
35. **Friend & Foe: The placebo phenomenon in pain medicine and physiotherapy.** Lectio magistralis (Capita Selecta) Master in Riabilitazione dei Disordini Muscoloscheletrici, University of Savona, Italy Dec 15th, 2019 (3 hours)
36. **Learning Mechanisms and mechanism of expectancy in placebo response.** Plenary Session – What we have learned about placebo: Implications for Clinical Practice and Interpretation of evidence about analgesics (moderator Ricardo Vallejo), North American Neuromodulation Society (NANS), Las Vegas, Jan 24, 2020 (25 min)
37. **Psychobiological mechanisms of the placebo and nocebo effects.** Plenaria: Dolor, una vision multidimensional – Congreso International Fisioterapia y dolor Zaragoza, Feb 15, 2020 (30 min)
38. **Placebo and Nocebo effects in Pain Medicine and Palliative Care.** Interprofessional Palliative Care Grand Rounds, University of Maryland, Baltimore Sept 29, 2020 (virtual/45 min)
39. **Placebo and nocebo effects: Implications for rheumatology and beyond.** Rheumatology Seminar Series (Virtual), Cleveland Clinic, Cleveland, OH. Oct 27, 2020 (virtual/45 min)
40. **The Placebo Effect in Pain Therapies: an update.** Opening Plenary at the Pain Forum 2020, Mexico City, Mexico November 26-27, 2020 (virtual/45min)
41. **Mechanisms of the placebo effect in chronic pain: New answers from experimental studies.** CONFÉRENCE INAUGURALE JEAN-MARIE BESSON Plenary Lecture for the SOCIÉTÉ FRANÇAISE D'ÉTUDE ET DE TRAITEMENT DE LA DOULEUR. Nov 16, 2021 (virtual/ 45 min).
42. **Expectations and suggestions.** Inaugural Lecture for the Science of Suggestions series, Goldsmiths, University of London Nov 16, 2021 (virtual/60 min).

43. **Placebo Nocebo and the Role of the Care Settings in Clinical Response.** Plenary Lecture Interdisciplinary Autoimmune Summit. April 21-24, 2022 (virtual/30 min).
44. **Neuropathic pain.** Plenary Lecture at the Pain Forum 2022, Mexico City, Mexico, Sept 29, 2022 (virtual)
45. **A Glimpse Into the Science of Placebo-Induced Healing.** The 35th Annual Gunn-Loke Lecture. 2022 UW Medicine, Anesthesiology & Pain Medicine, Seattle, Washington. Tuesday, November 8, 2022 (60 min).
46. **Neurobiological and clinical mechanisms of placebo analgesia.** Grand Rounds Lecture, University of Washington, Department of Anesthesiology & Pain Medicine, Seattle, WA, Nov 9, 2022 (45 min, hybrid)
47. **Predicting individual differences in placebo responsivity in laboratory settings and trials.** Plenary Lecture at the 2023 Society for Interdisciplinary Placebo Study, Duisburg, Germany, May 10, 2023 (30 min/hybrid).
48. **A glimpse into the science of placebo effects in palliative care.** Grand Rounds Series, Division Head Gerontology, Geriatrics and Palliative Medicine, University of Maryland School of Medicine, Baltimore, MD, March 1<sup>st</sup>, 2023 (45 min, virtual)
49. **A painful conversation with the expert Dr. Luana Colloca.** Inaugural Lecture Series, Pain Center, University of Bath, UK, June 11, 2023 (60 min)
50. **The Placebo Effect: Insights for Inflammation and Rheumatologic Diseases.** Grand Rounds Series, Rheumatology and Department of Medicine, Johns Hopkins University, Baltimore, USA, Feb 16, 2024 (60 min)
51. **Harnessing the descending pain modulation systems through placebo and immersive reality.** Grand Rounds Cleveland Clinic, Cleveland, Ohio. Oct 23, 2024 (60 min)
52. **Pain Innovative Therapy Breakthroughs.** Keynote talk - NIAF Lifetime Achievement Award for Ethics and Creativity in Medical Research. Oct 26, 2024 (20 min)
53. **Placebo effects: An educational session.** Grand Rounds for UPMC NCPA. Dec 6, 2024 (45 min)
54. **Placebo Effects in Osteoarthritis: Mechanisms and Implications.** Rheumatology Grand Rounds combined with C-COMP Virtual Seminar Series. Rush University, Chicago, US. Jan 16, 2025 (45 min)
55. **Bridging Placebo Effects: From Healthy Individuals to Chronic Pain.** Keynote Lecture. First Australian Placebo Conference, Sydney, Australia, Feb 14, 2025 (45 min)
56. **Breaking Boundaries of Pain Management: Harnessing the Value and Power of Virtual Reality.** Plenary Lecture. 2025 USAPS, Annual Scientific Meeting Advancing Pain Research: Innovations to Enhance Care, Chicago, US. April 29-May 2, 2025 (60 min)

57. **Placebo and Nocebo Effects in Orofacial Pain: Clinical, Social, and Biological Mechanisms.** Plenary Lecture, 2025 American Academy of Orofacial Pain, Arlington, Virginia, May 1-4, 2025 (60 min)

58. **A multimodal approach to expectations and placebo effects: biomarkers, phenotypes, disparities, and cultural aspects.** Plenary Lecture, Society for Interdisciplinary Placebo Studies (SIPS), Krakow, Poland, June 14-18, 2015 (25 min)

#### **INTERNATIONAL LECTURES (INVITED/SELECTED)**

1. **The placebo effect: from neurobiology to clinical practice** - Invited talk at the Annual Meeting of Slovenian Association for Pain Therapy, Maribor, Slovenia, June 10, 2005 (45 min)
2. **The science of the placebo effect** - Invited talk at the European Pain School, Siena, Italy, June 07, 2005 (45 min)
3. **The role of learning in placebo and nocebo responses** - Invited talk at the Symposium on Mechanisms of placebo/nocebo responses, Tutzing, Germany, November 28-30, 2007 (15 min)
4. **Placebo and Nocebo Modulation of Pain** –Invited Lecture at the “Pain and Psychopathology” Satellite Course of IASP - organizer Mario Tiengo, Milano, November 7, 2008 (45 min)
5. **Learning on placebo and nocebo effects** - Invited workshop talk at the 1th meeting of Independent Research Group, Munich, Germany, Nov 20-21, 2009 (45 min)
6. **Placebo effect: From mechanisms to clinics** - Invited seminar at University of Hamburg, Germany, Nov 24, 2009 (45 min)
7. **Empathy and social learning** - Invited talk Placebo Symposium: Psychological mediators and clinical relevance of placebo effects, Munich, Germany, Nov 27-28, 2009 (45 min)
8. **Oxytocin and the placebo effect** - Invited talk at the ceremony of EFIC scientific committee, Aachen, December 4, 2009 (10 min)
9. **Expectation vs short vs long conditioning in experimental pain** –Invited talk at the Placebo conference, Tübingen, Germany, Jan 21-22, 2010 (50 min)
10. **Placebo Analgesia Induced by Social Observational Learning** - Invited talk at the NIH Workshop - The Placebo Effect: Opportunities and Challenges, Bethesda, MD, USA, Jan 28-29, 2010 (20 min)
11. **Mind-brain interactions that are negative – Nocebo mechanisms and their clinical implications** –Invited talk SIG Symposium on Placebo, Montreal, Canada, Aug 29, 2010 (30 min)
12. **Getting nocebo research into clinical practice** - Invited talk at Behavioral Medicine in Oncology Program, Hillman Cancer Center, UPMC, Pittsburgh, Oct 27, 2010 (60 min)
13. **Nocebo effect: from neurobiology to clinic** - Invited talk at the Placebo, Ritual and Healing Seminars Series, Beth Israel Deaconess Medical Center (BIDMC), Harvard Medical School,

Boston, Dec 9, 2010 (45 min)

14. **Neurobiological mechanisms underlying placebo effects** –Invited talk at NIMH, NIH, Bethesda, April 5, 2011 (50 min)
15. **Effects of social observation in placebo analgesia** - 7TH CONGRESS OF THE EUROPEAN FEDERATION OF IASP® CHAPTERS (EFIC), Hamburg, Sept 22, 2011 (10 min)
16. **Mechanisms of the placebo effect** - VIII ANNUAL MEETING ON BRAIN AGING AND DEMENTIA, Lamezia Terme, Italy Oct 13-15, 2011 (30 min)
17. **Placebo analgesia: Contribution of verbal suggestions, conditioning and social learning** - Minisymposium at the Society of Neuroscience 2011, Washington, DC. November 12-16, 2011 (25 min)
18. **Role of verbal suggestions, conditioning and social observation in placebo analgesia** - Invited talk at meeting – Placebo and Performance: Implications for Program, Practice and Policy - Uniformed Services University of the Health Sciences (USUHS) – Board of Regents, Bethesda, Maryland, USA January 19, 2012 (20 min)
19. **Conditioning and Placebo responses: What we have learned from mechanistic and clinically-oriented research** - Invited talk at NIH workshop - Exploiting placebo responses in clinical practice: What do we need to know? January 20, 2012 (20 min)
20. **Nocebo research: Implications for clinical trials and practice** - Invited talk at NIH workshop - Exploiting placebo responses in clinical practice: What do we need to know? January 20, 2012 (20 min)
21. **Defining placebos and placebo responses** - Talk at the Italian Embassy, Washington, DC, Jan 20, 2012 (10 min)
22. **Nocebo mechanisms and their implications for patient-physician communication** - Invited talk at McGill University. May 23 and 24, 2012 (45 min)
23. **Pain and Placebo** - Invited talk at Pain series Seminars, University of Maryland, Baltimore, August 31, 2012 (45 min)
24. **Unravelling the mechanisms of the nocebo effect** - Invited talk at the international conference "Beyond the Placebo: Biomedical, Clinical and Philosophical Aspects of the Placebo Effect". Ascona, Switzerland, 23rd – 25th August, 2012 (45 min)
25. **The nocebo counterpart** - Invited talk at the SIG Placebo meeting at 14th World Congress on Pain®, August 26, 2012 in Milan, Italy (25 min)
26. **Using placebos and placebo effects in clinical practice** - Invited talk at the SIG Placebo meeting at 14th World Congress on Pain®, August 26, 2012 in Milan, Italy (25 min)
27. **Mechanisms of placebo and nocebo effects** – Invited seminar at the University of Mannheim, Systems Neuroscience in Psychiatry Central Institute of Mental Health J5,

Mannheim, Germany Sept 2, 2012 (45 min)

28. **New insights on nocebo effects: a comprehensive overview** - Invited talk at the European Academy of Craniomandibular Disorders meeting, September 6-8, 2012, Paris, France (30 min)

29. **Rethinking the placebo effect in bioethics** –Talk at the American Society for Bioethics and Humanities (ASBH) Annual Meeting, Washington, DC, Oct 18-21, 2012 (15 min)

30. **Placebo, nocebo and learning mechanisms** – Invited talk at the International Conference “Progress in our understanding of the psychobiological and neurobiological mechanisms of the placebo and nocebo response”, University Hospital Tübingen, Germany, January 23-25, 2013 (35 min)

31. **Does arginine vasopressin influence placebo analgesia?** – Invited seminar at NIMH workshop on oxytocin and vasopressin. Feb 15, 2013 (45 min)

32. **The Placebo Effect: Psychological and Neurobiological aspects** – Invited seminar at the Catholic University of America, Department of Psychology, Washington, DC, USA, Feb 20th, 2013 (45 min)

33. **Neurobiological mechanisms of the placebo effect.** Invited talk at Fellows Afternoon Neuroscience Seminars (FANS), NIMH, National Institutes of Health, Bethesda, US, December 19, 2013 (25 min)

34. **Placebo effects: From pain to psychiatric disorders.** Invited talk at the Third International Meeting of Mental Health, Jinhua, China, Nov 16, 2013 (45 min)

35. **Placebo analgesia: From bench to bedside.** Invited talk at the Seminar Series, Pain Research Center, School of Medicine, University of Pittsburgh, USA, Oct 2, 2013 (45 min)

36. **How expectations shape behaviors, brain responses, and clinical outcomes.** Invited talk at the NIAAA, LCTS, Journal Club, NIH, Bethesda, USA, Sept 18, 2013 (45 min)

37. **Nocebo effects: Neurophysiological mechanisms and clinical implications.** Invited talk at ‘Pathophysiology and Clinical Pharmacology of Pain’ INSERM U-987, Boulogne, France, Aug 30, 2013 (45 min)

38. **The dilemma of disclosing adverse events.** Invited talk at the meeting ‘Research ethics: Current challenges in pre-clinical, clinical and public health research’. Hannover, Germany, Aug 26-30, 2013 (25 min)

39. **Pain and Placebo: From bench to bedside.** Invited talk at the Pain Seminar Series, Center for Pain Research & Innovation (CPRI), UNC School of Dentistry, Chapel Hill, North Carolina, USA, May 9, 2014 (45 min)

40. **Placebo analgesia: How learning mechanisms shape somatosensorial perception.** Invited talk at Pain Seminar Series, Center of Biomedical Research Excellence (COBRE), Maine, Portland, University of New England, June 3, 2014 (45 min)

41. **Neurophysiology of placebo effects: Human cognition and learning mechanisms.** Invited seminar - International School for Advanced Studies, SISSA, Trieste, Italy, June 10, 2014 (45 min)
42. **Placebo effects: The contribution of cognition and learning mechanisms.** Invited seminar at the School of Psychology, University of Sydney, Sydney, Australia, June 18, 2014 (45 min)
43. **Nocebo effects: From patient-clinician communication to psychotherapy.** Invited talk at "The Placebo Effect and Psychotherapy: An Ethical Analysis", 24 - 26 June 2014, Brocher Foundation, Switzerland (25 min)
44. **Modulation of acute pain by expectation.** Invited talk at Acute Pain, SIG, 15th World Congress on Pain, Buenos Aires, Argentina, October 5, 2014 (90 min)
45. **Using placebos and placebo effects in clinical practice.** Invited seminar at the University of Hamburg, Leiterin der Psychotherapeutischen Hochschulambulanz Verhaltenstherapie Fachbereich Psychologie, Hamburg, Germany, Feb 5, 2015 (45 min)
46. **Placebo and beliefs.** Invited Lecture at the Accademia degli Accordi, Rovigo, Italy, Feb 7, 2015 (45 min)
47. **Experimental and clinical research on pain management: What we can learn from placebo effects.** Invited talk at the Mind-Body Week, Washington, April 17, 2015 (25 min)
48. **Placebo effects: Scientific advance and potential clinical and ethical implications.** Invited talk at the meeting 'Homeopathic Product Regulation: Evaluating the Food and Drug Administration's Regulatory Framework After a Quarter-Century', Food and Drug Administration (FDA), Silver Spring, USA, April 20, 2015 (15 min)
49. **Placebo and Nocebo: Learning and neurobiological mechanisms.** Invited Lecture, International Summer School: Emotional learning and memory in health and psychopathology University of Leuven, Belgium September 7–12, 2015 (90 min)
50. **How Expectation and Learning Shape Pain - Lessons for the Clinician from Placebo and Nocebo Studies,** Workshop at American Academy Pain Medicine (AAPM), Palm Springs, Feb 19, 2016 (25 min)
51. **From social learning to vasopressin – new mechanisms underlying placebo analgesia.** Workshop at the 2016 Psychosomatic Medicine Conference, March 10, 2016 (25 min)
52. **Does Placebo Analgesia Engage Brain Circuitry of Endogenous Pain Modulation?** Workshop sponsored by NCCIH at the American Pain Society (APS), Austin, Texas, May 13, 2016 (30 min)
53. **Neuroscience of Endogenous Pain Modulation in Complementary/Integrative Approaches -- Harnessing & optimizing the responses of the involved neural circuits** NCCIH sponsored workshop at the IRCIMH annual meeting, Las Vegas, May 18, 2016 (30 min)
54. **When Good Expectations Turn Bad: Recent Advances In Understanding the Nocebo Response.** Workshop at American Psychological Science (APS) annual meeting, May 27, 2016

(30 min)

55. **Novel Developments in Psychological Pain Research and Management.** Workshop at American Psychological Science (APS) annual meeting, May 26-29, 2016 (30 min)
56. **Lecture 1: Neurobiological mechanisms of placebo analgesic effects.** European School of Pain, June 8, 2016 (60 min)
57. **Lecture 2: Phenotypes of Pain placebo responders: Clinical and translational aspects.** European School of Pain, June 10, 2016 (60 min)
58. **Placebo and Pain.** Lecture sponsored by Grunenthal, Forum Futuro 2016, Lisbon, Portugal, June 18-19, 2016 (45 min)
59. **The fascinating placebo effect: Predictors and mediators.** Invited Lecture at the School of Sydney, School of Psychology, Sydney, Australia, Dec 5, 2016 (45 min)
60. **Placebo analgesia: A model to target the descending pain modulatory system.** Invited Online Lecture at EUROSCICON meeting The science of Pain, Dec 6, 2016 (35 min)
61. **Something from nothing: How to improve health outcomes via the placebo effect.** Workshop at the International Conference of Behavioral Medicine (ICBM), Melbourne, Australia, Dec 7-9, 2016 (25 min)
62. **From learning to expectancy violation: Understanding placebo effects to harness them.** Society for Interdisciplinary Placebo Studies (SIPS) meeting, Leiden, The Nederland, April 1-4, 2017 (30 min)
63. **Placebo effects: Determining the neurobiological mechanisms.** Invited seminar at the University of Aarhus, Denmark, Sept 5, 2017 (60 min)
64. **Exploring the neurobiological basis of placebo analgesia: New evidence of placebo phenotypes at Placebo effects: State of art, prediction and ethical consideration.** Workshop at the 2017 EFIC meeting (Colloca, L, Vase L, & Andrew SC Rice), Copenhagen, Denmark Sept 6-9, 2017 (25 min)
65. **Placebo and nocebo effects: Neural and behavioral impact of an expectancy and valence mismatch.** Nanosymposium Society for Neuroscience 2017. November 11-15, 2017 (15 min)
66. **Placebo effects and their clinical implications.** University of Sydney/IASP sponsored SIG meeting, Sydney, Australia, Nov 17-18, 2017 (45 min)
67. **Vasopressin enhances placebo analgesic effects.** Workshop entitled: "Placebo effects across conditions and symptoms: The role of learning and neurobiological mechanisms" at the American Psychosomatic Society, Louisville, Kentucky, USA, March 9, 2018 (90 min)
68. **The fascinating placebo effect: mechanisms and implications.** McGill University April 13, 2018

69. **Nocebo effects and their neurobiological mechanisms.** 2018 Mexican Pain Forum, Mexico City, Mexico, June 8, 2018 (45 min)
70. **How placebo effects influence clinical outcomes.** L. Spallanzani University of Pavia, Department of Biology and Biotechnologies (45 min – *online teleconference*)
71. **Clinical implications of placebo effects.** Toekenningsbrief – Koninklijke Nederlandse Akademie Van Wetenschappen Symposium. Leiden (The Netherland), June 21, 2018 (25 min - *online teleconference*)
72. **Pain, placebo effects and consciousness.** Symposium on “Pain and consciousness” August 9th, 2018 in Ann Arbor, Michigan, USA (25 min)
73. **Expectancy-induced Hypoalgesia: Can We Characterize the Phenotypes of Placebo Responders?** Speaker with Lene Vase and Korolina Wartolowska for the workshop: Placebo Responses in Trials of Pharmacological, Physical, and Surgical Interventions, World Conference for Pain, IASP, Boston, US Friday, September 14, 2018 (90 min)
74. **Placebo and nocebo in pain research.** Speaker with Beth Darnall, Lauren Atlas for the workshop: Patient-Centered Opioid Tapering - Translating the Science of Placebo and Nocebo for Pain Relief and Successful Opioid Reduction - American Pain Society, Milwaukee, April 4, 2019 (60 min)
75. **Understanding the pharmacology of the placebo effect.** Placebo Network Launch, Sydney, Australia. April 10, 2019 (15 min – *online video conference*)
76. **Mechanisms of observationally induced placebo hypoalgesia.** 2019 Mexican Pain Forum, Mexico City, Mexico, June 7, 2019 (45 min)
77. **Prediction of placebo effects.** Congreso International Fisioterapia y dolor Zaragoza, Feb 13, 2020 (90 min)
78. **Placebo and Expectations.** Lecture at the pre-meeting one-day workshop on psychobehavioral nonpharmacological interventions for chronic pain (Organizer: Beth Darnall), at the American Academy Pain Medicine, Washington, DC, Feb 27<sup>th</sup> (10am), 2020 (45 min)
79. **The power of placebo in pain studies.** Workshop at the at the American Academy Pain Medicine, Washington, DC, Feb 28<sup>th</sup>, 2020 (20 min)
80. **Placebos and Painkillers: Is Mind as Real as Matter?** Workshop at the at the American Academy Pain Medicine, Washington, DC, March 1<sup>st</sup>, 2020 (20 min)
81. **Placebo and nocebo.** The Opioid Overdose Epidemic: Trends, Harms and Treatment at the Virtual American College of Clinical Pharmacology Annual Meeting. Translating Clinical Pharmacology Research into Patient-centered care. Washington, DC. Sept 21-23, 2020 (20 min)
82. **IS NOCEBO PLACEBO'S EVIL TWIN?** –Virtual Workshop Series with Karolina Wartolowska, PhD, MD | Luana Colloca, MD, PhD, MS | Martina Amanzio, PhD, Feb 11, 2021 for the International Association for Study of Pain – Virtual Conference (90 min)

- 83. Dynamic Regulation of Genes in Placebo Responsiveness in Pain and Alcohol Use Disorders.** Virtual Workshop: Chamindi Seneviratne, MD (chair); Luana Colloca, MD, PhD, MS; Susan G Dorsey, PhD, RN, FAAN. Society for Interdisciplinary Placebo Studies (SIPS), Baltimore, US May 26-28, 2021 (90 min)
- 84. Immersive Virtual Reality to Induce a Positive Therapeutic Experience in Musculoskeletal Pain Patients.** Virtual Workshop: Marco Testa, PhD (chair); Beth Darnall, PhD; Luana Colloca, MD, PhD, MS. Society for Interdisciplinary Placebo Studies (SIPS), Baltimore, US, May 26-28, 2021 (90 min)
- 85. Phenotypes Supporting the Association of Sleep Disturbance and Endogenous Pain Modulation.** Virtual Workshop: Luana Colloca, MD, PhD, MS (chair); Patrick H. Finan, PhD; Gilles J Lavigne, DMD, MSc, FRCD, PhD. Society for Interdisciplinary Placebo Studies (SIPS), Baltimore, US, May 26-28, 2021 (90 min)
- 86. Harnessing Placebo and Avoiding Nocebo in Sports and Exercise: Novel Understanding of the Neurobiological Mechanisms.** Virtual Workshop: Bryan Saunders (Chair), Patrick J Oconnor; John S Raglin; Chris Beedie. American College of Sports Medicine (ACSM) Annual Meeting and World Congresses, Segunda-Feira, June 4, 2021 (150 min)
- 87. Context matters: Placebo and nocebo effects for pain management.** Virtual Workshop: European Alliance of Associations for Rheumatology (EULAR) Annual Congress 2021, Virtual meeting, June 4, 2021 (90 min)
- 88. Social Mechanisms Underlying the Pain Experience: An Innovative Multidisciplinary, Multi-Specie Approach.** Virtual Workshop: Luana Colloca, MD, PhD, MS | Christian Keysers | Loren Martin for the International Association for Study of Pain (IASP) – Virtual Conference, June 10, 2021 (90 min)
- 89. Placebo effects in the response to pain treatment.** NIDDK Workshop Pancreatic Pain: Knowledge Gaps and Research Opportunities in Adults and Children. Virtual conference, July 21, 2021 (45 min)
- 90. Placebo effects: From pain to Refractory Chronic Cough (RCC) and Unexplained Chronic Cough (UCC).** Expert Panel for Shionogi Inc. Virtual conference, Sept 30, 2021 (4 hours)
- 91. Placebo effects: An overview of recent findings in chronic pain patients.** Lecture at the SFB/TRR 289 “Treatment Expectation” Seminar Series. Dec 7, 2022 (virtual/45 min)
- 92. Predicting placebo effects (Predicción del efecto placebo).** Máster Universitario en Terapia Manual Ortopédica en el tratamiento del Dolor & Máster Universitario en Terapia Manual Ortopédica en el tratamiento del Dolor, Canaries, Spain, March 24, 2022 (2 hours, virtual)
- 93. Exploring Psychedelics and Entactogens as treatments for Psychiatric Disorders.** The National Academies of Sciences, Engineering, and Medicine. March 29-30, 2022 (virtual/panelist)
- 94. Virtual Reality: From pain to racial biases.** Workshop with Amitabh Varshney and Sarah Murthi at the Annual Behavioral Medicine Conference, Baltimore April 9, 2022 (50 min)

95. **Virtual reality in laboratory settings.** EULAR 22 European Congress of Rheumatology, May 31-June 4, 2022 (25 min)
96. **Phenotypes of placebo effects.** NSAS course, June 11, 2022 (90 min)  
<https://www.neurosas.org/advanced-courses-venice/advanced-courses/acute-to-chronic-pain/>
97. **Placebo, social learning and virtual reality.** NSAS course, June 12, 2022 (90 min)  
<https://www.neurosas.org/advanced-courses-venice/advanced-courses/acute-to-chronic-pain/>
98. **Predicting individual differences in placebo effects directly in patient populations.** At the Pain and Placebo SIG Satellite as part for the world 2022 IASP Conference Sept 18, 2022 Toronto, Canada
99. **Mechanisms and mitigation of nocebo hyperalgesia.** At the refresher course for IASP 2022 “Placebo and Nocebo Effects: Basic Science and Implications for Clinical Trials and Clinical Practice”, Sept 19, 2022, Toronto, Canada
100. **Explaining the mechanisms of nocebo effects.** At the Workshop for IASP 2022 “Nocebo effects in pain: From mechanisms to therapeutic treatments in clinical practice”, Sept 20, 2022 Toronto, Canada
101. **Age, sex and race effects on placebo analgesia: Results from a large cohort study in chronic pain and healthy participants.** At the Workshop for IASP 2022 “Demystifying Mechanisms of Placebo Effects Across the Lifespan”, Sept 23, 2022 Toronto, Canada
102. **Placebo effects and Neuropathic Pain | Efectos placebo y dolor neuropático** Pain Forum 2022. Sept 30, 2022, Mexico City, Mexico (virtual)
103. **Placebo and nocebo effects in dementia.** Lecture at the XVII Convegno Nazionale SINdem - Oct 13-15, 2022, Firenze, Italy (virtual)
104. **Harnessing endogenous pain reduction in clinical and experimental pain: Placebo, social learning and virtual reality.** Instytut Psychologii, Uniwersytet Jagiellonski, Oct 19, 2022, Krakow, Poland
105. **Placebo effects in chronic pain: A new understanding of their mechanisms and implications.** XI Congress of the Polish Society for the Study of Pain "Pain Medicine 2022 - interdisciplinary". Krakow, Poland, Oct 20, 2022
106. **Neurophysiological mechanisms and clinical phenotypes of placebo effects.** FAU Institute for Human Health and Disease Intervention (I-Health) Fall 2022 Seminar Series, Boca Raton, Nov 17, 2022
107. **Placebo, social learning and virtual reality.** Seminar at Universidad Europea de Canarias, Jan 26, 2023, Canary Islands, Spain
108. **Placebo Hypoalgesia as a form of Endogenous Pain Modulation.** Human Pain Seminar Series Symposium 2023, University of Toronto, Canada, March 21, 2023

109. **Factors contributing to variability in pain response testing – Human.** At the “Great Expectations: Factors Influencing Control Group Response Rates in Human and Animal Pain Studies. A COHA Translational Summit”, Durham, NC, USA, April 11, 2023 (30 min)
110. **PLACEBO ANALGESIC EFFECTS-I: Lessons from a decade of laboratory research.** Women’s College Hospital, Toronto, **TORONTO ACADEMIC PAIN MEDICINE INSTITUTE (TAPMI)**, Toronto, Canada, May 2nd, 2023 (45min)
111. **PLACEBO ANALGESIC EFFECTS-II: Lessons from a decade of laboratory research on social learning and virtual reality.** Women’s College Hospital, Toronto, **TORONTO ACADEMIC PAIN MEDICINE INSTITUTE (TAPMI)**, Toronto, Canada, May 2nd, 2023 (45min)
112. **A painful conversation with the expert Dr. Luana Colloca.** Inaugural Lecture Series, Pain Center, University of Bath, UK, June 11, 2023 (60 min)
113. **A roadmap to understanding human mechanisms of placebo effects.** Speaker and Chair for Workshop at the European Behavioural Pharmacology Society (EBPS) Conference. Aug 24, 2023 (25 min)
114. **On the ethical requirement to inform trial participants the truth, the whole truth, and nothing but the truth...about potential treatment benefits!** Speaker and Chair for the Workshop at American Society for Bioethics + Humanities Conference. Oct 14, 2023 (25 min)
115. **Harnessing the Placebo Effect Mechanisms and Phenotypes.** American Conference of Rheumatology. Nov 11, 2023, San Diego, USA (20 min)
116. **Behavioral and Biological Predictors of Placebo Effects.** OBSSR and the NIH Behavioral and Social Sciences Research (BSSR) Coordinating Committee for the virtual NIH Behavioral and Social Sciences Research Festival. Bethesda, USA, Dec 5, 2023 (Virtual)
117. **Placebo effects: Brain and Behavioral Mechanisms.** Speaker and Chair for the Workshop: “Expectancies, Contextual Effects, and Placebo Effects” at the Winter Conference for Brain Research (WCBR), Jan 27-Feb 1, 2024 (30 min)
118. **The placebo effect: Insights for chronic pain diseases.** Invited seminar at the HopitalAmbroiseParé, Paris, France, March 5, 2024 (45 min)
119. **Mechanisms of Placebo Effects: The Power of our Brain Endogenous Pharmacy.** Invited talk at the Institut du Cerveau et de la Moelle Epiniere (ICM) conference, INSERM, Paris, France. March 6, 2024 (30 min)
120. **Observational learning and pain.** Speaker and Chair for the Workshop: Unlocking the social neuroscience of pain: Trust, Learning and Support at the USASP Conference, Seattle, April 15, 2024
121. **Translating Science into better Clinical Trial Design for Medical XR.** Speaker at the FDA MDIC Medical Extended Reality Summit. Washington, DC, April 17, 2024 (12 min)
122. **Mechanisms of Placebo Effects.** Invited talk at the Cognivia Webinar, April 29, 2024 (12 min)

123. **Placebo effects.** Invited talk at the Hospital of LVIV, UKRAINE, May 4, 2024 (35 min)
124. **Nocebo effects.** Invited talk at the Hospital of LVIV, UKRAINE, May 4, 2024 (35 min)
125. **An Overview of the Neurobiological Mechanisms of Expectations and Placebo Effects in Pain and Health Care.** Speaker at the workshop entitled “Challenges in translational modeling of placebo and nocebo mechanisms” at the 2024 Society Of Biological Psychiatry Annual Meeting. Austin, Texas, May 9, 2024 (25 min)
126. **The nocebo effect: The bad twin.** Grand Round Lecture IRP NIDA, May 23, 2024 (45 min)
127. **Mechanisms and phenotypes of placebo effects in chronic pain conditions.** EFIC Virtual Webinar. May 29, 2024 (25 min)
128. **Expectations and placebo effects: from pain to appetite related symptoms.** Invited talk at the Obesity and eating disorders Conference, Camerino, Italy, June 7-8 2024 (20 min).
129. **Pain Modulation: Determinants and predictors of placebo effects.** Invited speaker at the EFIC Pain School, June 26-30, 2024 Krakow, Poland
130. **Placebo and nocebo effects: Predictive factors in laboratory settings.** Invited talk at the Placebo Workshop: Translational Research Domains and Key Questions, National Institute of Mental Health (NIMH), July 11-12, 2024
131. **Mechanisms of Placebo and Nocebo Effects.** Shanghai Mental Health Center, Shanghai, China, July 22, 2024
132. **Virtual reality in pain management: Mechanisms and applications.** Shanghai Mental Health Center, Shanghai, China, July 22, 2024
133. **Mechanisms of Placebo and Nocebo Effects.** Center for Excellence in Brain Science and Artificial Technology, Shanghai, China, July 23, 2024
134. **Mechanisms of Placebo and Nocebo Effects.** Department of Neuroscience, Fudan University, Shanghai, China, July 24, 2024
135. **Nocebo Effect: Exploring Internal and External Factors in Fear-Avoidance and Social Learning.** Workshop at the International Association for Study of Pain. (replaced by Dr. Yang Wang from the Colloca lab). Amsterdam, The Netherland. August 8, 2024 (30 min).
136. **Placebo effects: From sociodemographic aspects to sleep.** Helsinki, Finland. Sept 18, 2024 (45 min)
137. **Placebo and Nocebo.** THE XXVII SIGNE AND ANE GYLLENBERG SYMPOSIUM. Helsinki, Finland. Sept 19, 2024 (30 min)
138. **Understand placebo responses and their role in clinical trials.** ASA Conference, Philadelphia, Pennsylvania (25 min)

139. **Pain modulation through placebo effects and immersive virtual reality.** Seminar at the Dept of Neuroscience, School of Medicine, Turin, Italy. Nov 6, 2024 (45 min)
140. **Social Learning in Pain: A human model.** Lecture at San Luigi, Orbassano, Turin, Italy. Nov 7, 2024 (30 min)
141. **Expectations, placebo effects and spirituality health.** Invited talk for the NCCIH Council WG meeting, Nov 13, 2024 (25 min)
142. Placebo effects and control conditions in music based virtual reality. Webinar entitled: **Control Conditions in Research on Music for Pain.** NIH Music4Pain Research Network December 5, 2024 (25 min)
143. **Placebo effects.** An educational session for UPMC northcentral PA. Dec 6, 2024 (45 min)
144. **Naloxone Blocks Observationally Induced Placebo Effects.** At the Mini panel entitled: Expectations, Contextual, and Placebo Effects: Brain Mechanisms and Tangible Applications. ACNP, Phoenix, Arizona, Dec 7-11, 2024 (20 min)
145. **Pain modulation through placebo effects.** CACP Seminar, Baltimore, US, Jan 9, 2025 (45 min)
146. **Placebo Effects in Osteoarthritis: Mechanisms and Implications.** Rheumatology Seminar Series, Rush University, Chicago, Jan 15, 2025 (45 min)
147. **Pain Modulation and Digital Therapeutics: The Power of Virtual Reality.** Seminar at the University of Arizona, Arizona, Jan 23, 2025 (virtual)
148. **The Science Behind Placebo-Induced Analgesia.** Seminar at the Master of the Canaries, Spain, Jan 30, 2024 (2 hours, virtual)
149. **Harnessing Placebo Effects: Insights from Pain Modulation and Individual Differences.** Seminar at the Dalhousie University, Department of Pharmacology, Halifax, Canada, April 8, 2025 (60 min)
150. **Recent advances in placebo research. Neuroimaging and Cognition Seminar, Division of Psychology, Communication, and Human Neuroscience, Manchester, UK, April 22, 2025 (60 min)**
151. **Le abilità manuali come fattore contestuale. Come e perché le aspettative del paziente contano?** Manualità in fisioterapia muscoloscheletrica, Master in Fisioterapia muscoloscheletrica e reumatologica. VII TOPICS IN MUSCULOSKELETAL THERAPY 23 maggio 2025, Policlinico S.Orsola-Malpighi, Bologna
152. **Methodological considerations on how to study placebo effects in experimental settings.** SIPS Preconference School, June 14, 2025 (25 min)

**NATIONAL LOCAL INVITED LECTURES:**

153. **Blink Reflex and Skin Sympathetic Response (SSR)** - Invited seminar at Corso di Neurofisiologia Clinica ed Applicata, Master di Cure Palliative, Oct 4, 2003. University of Turin Medical School, Italy (2 hours)
154. **Neurophysiology of pain** - Invited seminar at Corso di Perfezionamento, Metodologia clinica delle cefalee e dell'nevralgia cranica, Ricerca e Terapia, May 15, 2004. University of Turin Medical School, Italy (2 hours)
155. **The science of placebo response** - Invited seminar at the Corso di Neurofisiologia Clinica ed Applicata, Master di Cure Palliative, University of Turin Medical School, Italy. May 10, 2005 (2 hours)
156. **The placebo effect: from neurobiology to clinical practice** - Invited seminar at Ospedale Borgo Trento di Verona, Reparto di Neurologia, Verona, Italy. October 27, 2005 (45 min)
157. **Pain and Placebo** - Invited seminar at the Dipartimento di Scienze Neurologiche e della Visione, University of Verona Medical School, Verona, Italy. October 27, 2005 (45 min)
158. **The role of learning in the placebo effect** - Invited talk at the meeting of Gruppo Nazionale di Studio delle Neuroscienze e del Dolore. Modena, May 6-7, 2005 (25 min)
159. **Placebo analgesia and brain imaging: state of art and future directions** - Invited talk at the meeting of Gruppo Nazionale di Studio delle Neuroscienze e del Dolore, Siena, Italy, May 4-5, 2006 (15 min)
160. **The many faces of the placebo effect: from neuronal mechanisms to clinical and ethical implications** - Invited seminar at Corso di Neurofisiologia Clinica ed Applicata, Master di Cure Palliative, 2007. University of Turin Medical School, Italy (2 hours)
161. **Labour pain** - Invited seminar at Course of Obstetrics, University of Turin Medical School, Turin, Italy. May 16, 2007 (2 hours)
162. **Placebo and Nocebo effects as models to understand cognitive modulation of pain** - Workshop talk at the symposium 25 on Central mechanisms of pain modulation: recent advances, meeting of Italian Society of Neuroscience, Verona; Italy, Sept 27-30, 2007 (30 min)
163. **The placebo effect: from neurons to ethics** - Invited talk at the Group of Bioethics, Turin, April 22, 2008 (30 min)
164. **Placebo and Nocebo** - Invited seminar at University of Pavia, Faculty of Science MMFFNN, December 18, 2008 (2 hours)
165. **L'esperienza del dolore nel travaglio da parto: aspetti neuroendocrinologici** - Invited talk at the Congresso della Società Italiana per la psicosomatica in ginecologia e ostetricia (SIPGO), Modena, February 20, 2009 (30 min)
166. **Placebo and nocebo modulation of pain: from neuronal mechanisms to clinical and ethical implications** - Invited talk at the Master of Palliative Care, Turin, May 12, 2009 (3 hours)

167. **Modulation of pain on obstetrics** - Invited seminar at the School of Obstetrics, University of Turin Medical School, Turin, Italy, Nov 6, 2009 (2 hours)
168. **Oxytocin: From physiology to future perspectives** - Invited seminar at the of Obstetrics, University of Turin Medical School, Turin, Italy, Nov 9, 2009 (2 hours)
169. **Learning and placebo analgesia: verbal suggestions, conditioning and social observation** - Invited talk at Osher Center, Harvard Medical School, Boston, Feb 25, 2010 (50 min)
170. **Learning and the placebo effect: recent advances** –Invited talk at the Division of Basic Neuroscience & Behavioral Research, National Institute on Drug Abuse (NIDA), Bethesda, MD, USA, March 19, 2010 (50 min)
171. **Placebo and nocebo: methodological, neurobiological and ethical aspects** - Invited talk at the Postgraduate Course “Diagnosis and Treatment of oral facial pain”, Consortium University of Cagliari and Bicocca University, Milan, Italy, March 26-27, 2010 (4 hours)
172. **Modulation of pain** - Invited talk at Midwifery School, University of Turin Medical School, Turin, Italy, March 30, 2010 (3 hours)
173. **Placebo effect: Evidence and Ethics** –Seminar at the Department of Bioethics, Clinical Center, National Institutes of Health, May 18, 2010 (35 min)
174. **Getting nocebo research into practice: Clinical and ethical implications** - Seminar at the Department of Bioethics, Clinical Center, National Institutes of Health, Sept 28, 2010 (35 min)
175. **The nocebo effect and patient-clinician communication** - Invited lecture at AO OIRM S: ANNA Turin, Italy, November 24, 2011 (45 min)
176. **Ethics of placebos in medicine** - Seminar at the first-year course of Bioethics, National Institutes of Health. March 28, 2012 (1.5 hour)
177. **The neurobiology of the placebo effect** - Invited seminar at the Psychiatry Clinical Fellows Seminar Series, National Institute of Mental Health, NIH, Bethesda, April 10, 2012 (1.5 hours)
178. **The determinants of placebo: a neurobiological perspective.** Invited talk at the Master in Musculoskeletal Disorders Rehabilitation, the University of Genova, Italy, Dec 16, 2012 (45 min)
179. **Nocebo effects: Definition and neurobiological aspects.** Invited talk at the Master in Musculoskeletal Disorders Rehabilitation, the University of Genova, Italy, Dec 16, 2012 (45 min)
180. **Neurobiological aspects of the placebo effect.** Invited talk at the Seminar Series, Department of Pharmacology and Physiology, Georgetown University, Washington, USA, Sept 3, 2013 (45 min)
181. **Placebo analgesia** – Invited talk at the Intramural Program NCCAM – March 19, 2013 (45 min)
182. **The placebo effect: An exploration of the psychophysiological effects.** Invited seminar at the Department of Integrative Physiology, Georgetown University, Washington, USA, March 20,

2014 (45 min)

183. **Pain and placebo: An exploration of pain modulation in patients.** Invited talk at the INSERM, Paris, France, April 22, 2014 (10 min)

184. **Placebo analgesia: Understanding the mechanisms.** Seminar the Dental School, University of Maryland Baltimore, Baltimore, USA, Feb 26, 2015 (45 min)

185. **Placebo effects: Understanding the mechanisms.** Invited talk at the Seminar Series of the Physiology and CAM Graduate Program, Georgetown University, Washington, DC, USA, March 26, 2015 (45 min)

186. **Expectancy-induced analgesia: Psychological and neural mechanisms.** Invited talk at the Johns Hopkins - University of Maryland Pain Workshop, Baltimore, USA, April 15, 2015 (25 min)

187. **Placebo effects: From pain to motor disorders.** Invited talk at Maryland Exercise & Robotics Center of Excellence (MERCE), University of Maryland-Baltimore, School of Medicine, Baltimore, USA, May 7, 2015 (45 min)

188. **Placebo analgesia: Elucidating the neurobiological mechanisms.** Invited talk at Maryland Neuroimaging Center University of Maryland, College Park, Maryland, USA, May 21, 2015 (45 min)

189. **Placebo effects: From Parkinson's disease to Pain.** Grand Rounds Lecture Series, The Washington DC VA Medical Center, Washington DC, Oct 28th, 2015 (45 min)

190. **Pain and placebo Analgesia: Through the looking glass,** Invited talk at the Center for Biology and Behavior Across the Lifespan, UMB School of Nursing, Nov 5th, 2015 (45 min)

191. **Placebo effects: Understanding the mechanisms.** Invited seminar at the CAM program master, Georgetown University, Washington DC, March 17, 2016 (60 min)

192. **Neuroimaging studies of placebo – Pain, depression and addiction.** Invited seminar at the GPLS 775 course: Interface of Pain, Affect, and Addiction, University of Maryland Baltimore, SOM and SOD, Baltimore, May 2, 2016 (60 min)

193. **Effetti placebo e nocebo: Dal dolore sperimentale a quello clinico.** Invited talk at the Associazione Italiane per lo Studio del Dolore (AISD), Rome, May 27, 2016 (via video, 25 min)

194. **The Neuroscience of Placebo analgesia.** Invited talk at Neuroscience Lecture, Stanford University, Palo Alto, Aug 15, 2016 (60 min)

195. **Pain and Placebo analgesia.** Invited talk at the SNAPL Department, Stanford University, Palo Alto, Aug 16, 2016 (60 min)

196. **A Prediction Error Model of Placebo Analgesia and its Extinction.** Talk at the TMJA meeting, FASEB, Bethesda, Sept 11-13, 2016 (10 min)

197. **Placebo-induced pain modulation: An overview of recent results.** Invited talk at the BBAL, School of Nursing, University of Maryland, Baltimore, Dec 1<sup>st</sup>, 2016 (25 min)
198. **Placebo-induced pain modulation: Concepts and models.** Invited talk at the Pain Interest Group, Center to Advance Chronic Pain Research (CACPR), Dec 1<sup>st</sup>, 2016 (55 min)
199. **Placebo and nocebo effects: An overview of the psychophysiological mechanisms.** Invited talk at the Blaustein Pain Series, Johns Hopkins University, Baltimore, MD Dec 16, 2016 (45 min)
200. **Neurobiology of placebo and nocebo effects.** Invited talk at L. Spallanzani University of Pavia, Department of Biology and Biotechnologies. April 10, 2017 (120 min)
201. **Pain and Placebo.** Invited talk UMB MRI retreat, Baltimore, MD, April 14, 2017 (25 min)
202. **Something from nothing: How expectancies change pain experience.** Invited talk for the Board visitor meeting, School of Nursing, UMB. Baltimore, May 24, 2017 (45 min)
203. **Expectancy-induced analgesia: Mechanisms and clinical implications.** Invited Grand Rounds Lecture, Otorhinolaryngology-Head & Neck Surgery, School of Medicine, UMB, Baltimore, July 13, 2017 (45 min)
204. **Placebo effects: Determining the neurobiological mechanisms.** Georgetown University, Department of Biochemistry and Molecular and Cellular Biology, March 19, 2018 (2 hours)
205. **Designing, reporting and interpreting clinical trials in pain medicine.** Residents Program, Dept of Anesthesiology, University of Maryland, School of Medicine, April 16, 2018 (45 min)
206. **Observe to get pain relief: current evidence and potential mechanisms of socially learned pain modulation.** CACPR/JHU semiannual PAIN meeting, April 18, 2018 (20 min)
207. **How expectancies shape pain perceptions and outcomes.** University of Maryland School of Medicine, University of Maryland School of Medicine, Baltimore, April 20, 2018 (45 min)
208. **Placebo in Pain Management.** Update in Headache & Pain Management. Michigan State Medical Society, Dearborn, MI, May 18, 2018 (45 min)
209. **Placebo effects in Pain Therapies.** "The Drexel University, Philadelphia Pain Symposium", Philadelphia, PA. May 25, 2018 (30 min)
210. **How expectancies shape pain perceptions and outcomes.** Brown Bag Lunch Session University of Maryland MPowering the State, June 6, 2018 (45 min)
211. **The neurobiology of pain modulation: from placebo effects to virtual reality.** Meet the makers Lecture at UMB HS/HSL, Baltimore, Oct 17, 2018 (45 min)
212. **Virtual Reality, Music and Pain: An Interdisciplinary Approach to Pain Management.** Speaker with Amitabh Varshney - Maryland Blended Reality Center, Craig Kier - Maryland Opera Studio at MAVRIC meeting, Oct 18, 2018 (35 min)

213. **The epidemic of opioids and naturally induced release of endogenous opioids.** Blaustein Pain Grand Rounds Conference, Johns Hopkins University, Baltimore, Feb 8, 2019 (45 min)
214. **The power of mind and clinical outcomes.** Hyperacusis *dinner*, Baltimore, Feb 10, 2019 (25 min)
215. **Placebo effects: More than sugar pills.** Pain Lecture Series Prentice Women's Hospital, Northwestern University, Chicago, USA, March 5, 2019 (60 min)
216. **Pain Modulations: From Placebo to Virtual Reality,** Speaker with Sarah Murthi, Critical Care Education Conference, University of Maryland, Baltimore, March 11, 2019 (15 min)
217. **What We Have Learned About Placebo: Implications for Clinical Practice and the Interpretation of Evidence about Analgesics.** Advances in Pain Management 2019, Rochester, NY March 23, 2019 (60 min)
218. **More than sugar pills: Mechanisms of placebo effects.** Georgetown University CAM Program, April 9, 2019 (60 min)
219. **Neurobiology of placebo and nocebo effects.** Invited talk at L. Spallanzani University of Pavia, Department of Biology and Biotechnologies. May 20, 2019 (120 min)
220. **UMB CONFRONTS CHRONIC PAIN.** Public Panel. **Panelists:** Luana Colloca (School of Nursing) "*Optimizing pain management: A need for novel strategies.*" Marcela Romero- Reyes (School of Dentistry) "*Orofacial pain and headache disorders: Pains beyond the classical toothache*" Diane Hoffmann (School of Law) "*Legal obstacles to the treatment of pain*" Asaf Keller (School of Medicine) "*A Balanced Approach to Opioids and Chronic Pain*" at the Radisson at Cross Keys 5100 Falls Road, Baltimore, MD, June 19, 2019 (10 + 50 min Q&A)
221. **Observe to get better: neurobiological mechanisms of observationally induced hypoalgesia.** Invited talk at the National Center for Complementary and Integrative Health (NCCIH), Mind-Body series, Bethesda, MD, United States, June 20, 2019 (60 min)
222. **Placebo analgesia in chronic pain, social learning and immersive virtual reality.** Pain Interest Group talk, University of Maryland Baltimore, Sept 5<sup>th</sup>, 2019 (60 min)
223. **Development of Phone Based Applications to Relieve Traumatic Pain and Prevent Substance Use Related to Long-Term Use of Opioids.** CARES, Annual Meeting, University of Maryland, Baltimore, Oct 21, 2019 (15 min)
224. **Expectancies and Placebo Effects: A Novel Approach to Pain Management.** Invited talk at the Opioid Use Disorder and Chronic Pain Management: Innovations in Research and Practice, University of Connecticut, CT, USA, November 1, 2019 (45 min)
225. **Exploring the role of vasopressin in socially induced hypoalgesia,** NCATS Site Visit, Johns Hopkins University, Nov 25, 2019 (15 min)
226. **Ketamine and placebo effects in depression and neuropathic pain,** Pain Interest Group Seminar speaker with Sherrie Lessans. Jan 23, 2020 (30 min)

227. **Prediction of placebo effects.** Invited lecture at CAM Graduate Program Georgetown University Medical Center, Washington, DC, Feb 27<sup>th</sup> (noon), 2020
228. **TL1 Career Roundtable**, Johns Hopkins University, May 4, 2020 (Zoom talk / one hour and 20 min)
229. **Placebo effects in pain therapies and temporomandibular disorders.** UNC orofacial pain series - A deep dive into orofacial pain headache and sleep medicine, University of North Carolina, May 27, 2020 (Zoom talk/ 60 min)
230. **Placebo-induced pain modulation – Behavioral, psychological and biological phenotypes.** Blaustein Pain Grand Rounds Conference, Johns Hopkins University, Baltimore. May 29, 2020 (Virtual talk / 60 min)
231. **Placebo and nocebo effects.** Seminar at the UM Scholars programs MPowering the State, University of Maryland School of Medicine, Baltimore. June 9, 2020 (Virtual talk / 60 min)
232. **Mechanisms of pain modulation.** Program in Neuroscience (PIN), University of Maryland School of Medicine, Baltimore. June 25, 2020 (Virtual talk / 60 min)
233. **Placebo: from mechanisms to implications for clinical trials.** At the *Rehabilitation Research 2020: Envisioning a Functional Future* workshop at the NIH Campus in Bethesda, MD (October 15-16, 2020, Virtual / 25 min)
234. **Non-pharmacological approaches for pain modulation in chronic pain.** At the Pain Interest Group (PIN), University of Maryland, Baltimore, MD. Oct 22, 2020 (Virtual/45 min)
235. **TL1 scholarship: Advancing excellence in clinical translational research and leadership. Institute for Clinical and Translational Research (ICTR) Enrichment Seminar.** University of Maryland, Baltimore, MD. June 8, 2021 (Virtual/60 min)
236. **Placebo, Nocebo and COVID-19.** Seminar at the PIG for the University of Maryland Center to Advance Chronic Pain Research (CACPR). Baltimore, MD, USA Jan 6, 2022 (60 min)
237. **How to Decide Which Conference(s) to Attend.** Seminar at Johns Hopkins University for the TL1 program. Baltimore, MD, USA Feb 7, 2022 (20 min)
238. **Pain modulation: Phenotypes and mechanisms of placebo effects.** Lecture at the Seminars in Pain Research, University of Connecticut, USA. April 5, 2022 (60 min)
239. **Phenotypes and mechanisms of placebo effects.** Invited lecture at CAM Graduate Program Georgetown University Medical Center, Washington, DC, April 11, 2022 (120 min)
240. **Peer review process.** Seminar for the Post-doctoral series on Responsible Conduct of Research, University of Maryland, Baltimore, MD, Sept 13, 2022 (45 min)
241. **Virtual reality: New findings and perspectives.** Seminar Series Center to Advance Chronic Pain Research, University of Maryland, Baltimore, MD, Sept 15, 2022 (45 min)
242. **Mechanisms of placebo effects.** NIDA IRP Baltimore, Nov 22, 2022, Baltimore, MD, USA

243. **A SPECIAL GUEST LECTURE. Placebo effects: Mechanisms.** Georgetown University, Washington. DC, April 17, 2023

244. **Breaking Boundaries of Pain Management: Harnessing the Value and Power of Virtual Reality**, SINI, Baltimore July 25, 2023

245. **A SPECIAL GUEST LECTURE. Placebo effects: Mechanisms.** Georgetown University, Washington. DC, April 17, 2023 (1 hour)

246. ***Innovating Healthcare Technologies at Maryland*** – Precision Medicine University of Maryland School of Medicine, Baltimore. May 31, 2023 (chair)

247. **Breaking Boundaries of Pain Management: Harnessing the Value and Power of Virtual Reality**, SINI, Baltimore July 25, 2023 (45 min)

248. **Ethics and Human Subjects Research.** University of Maryland School of Medicine. July 23, 2023 (45 min)

249. **Meccanismi dell'Effetto Placebo.** University of Savona, July 27, 2023. (1 hour)

250. **Social learning to reduce pain: Brain mapping findings.** University of Maryland School of Medicine, Baltimore, Oct 13, 2023

251. **Leading a Diverse & Inclusive Lab.** Panelist with the UMSOM Center for advanced research training and innovation. Dec 6, 2023 (1 hour)

252. **Modulation of Pain.** Liceo Capialbi, Vibo Valentia, Jan 16, 2024 (2 hours including Q&A)

253. **Placebo mechanisms and implications for clinical practice.** Máster Universitario en Terapia Manual Ortopédica en el tratamiento del Dolor & Máster Universitario en Terapia Manual Ortopédica en el tratamiento del Dolor, Canaries, Spain, Jan 18, 2024 (2 hours, virtual)

254. **Mechanisms of Placebo Effects: Power of our Brain Endogenous Pharmacy.** Georgetown University, Washington. DC, April 15, 2023 (1 hour)

255. **Placebo and Nocebo Effects: Mechanisms and applications.** Georgetown University, Washington. DC, April 15, 2024 (1 hour)

256. **Last 5-year results: From Placebo effects to Virtual Reality.** University of Maryland School of Medicine, Baltimore. Sept 9, 2024 (1 hour)

#### **COLLOCALAB AND COLLABORATORS ORAL PRESENTATIONS and POSTERS (last few years only)**

1. White, J. Nocebo: Impact, Mechanisms, and Future Perspectives. Talk at a workshop delivered at: Canadian Pain Society 44th Annual Scientific Meeting; April 27-30, 2024; Ottawa, Canada

2. White, J., Bellei-Rodriguez, C., Wang, Y., Watson, L., Heagerty, JM., Li, S., Brown, B., Varshney, A., Shafir, R., Colloca, L. Virtual Reality Experiences and Neural Responses: Unraveling the Dynamics of Empathy and Placebo Effects. Poster pitch delivered at: Canadian Pain Society 44th Annual Scientific Meeting; April 27-30, 2024; Ottawa, Canada
3. White, J., Bellei-Rodriguez, C., Wang, Y., Watson, L., Heagerty, JM., Li, S., Brown, B., Varshney, A., Shafir, R., Colloca, L. Virtual Reality Experiences and Neural Responses: Unraveling the Dynamics of Empathy and Placebo Effects. Poster presented at: Canadian Pain Society 44th Annual Scientific Meeting; April 27-30, 2024; Ottawa, Canada
4. White, J., Bellei-Rodriguez, C., Wang, Y., Watson, L., Heagerty, JM., Li, S., Brown, B., Varshney, A., Shafir, R., Colloca, L. Avatar versus human in pain: effects of state empathy on socially induced hypoalgesia using immersive virtual reality. Abstract accepted for: Society for Social Neuroscience Annual Meeting; March 25-28, 2024; Tsukuba, Japan.
5. Wang Y, Duan E, Colloca L. Continuous Vigorous Exercise Enhancing Sleep Quality in Chronic Pain: A Bayesian Belief Network Perspective. Johns Hopkins University Sleep and Circadian Research Day, June 10, 2024, Baltimore, Maryland, USA
6. Shafir, R. Emotion Regulation, the placebo effect, and the relations between them. Talk given online at Dr. Andrew Geers's lab, Department of Psychology, University of Toledo. March 1, 2004 (45 min)
7. Shafir R. Rethinking placebo - not just an inert drug. Podcast interview at: "brain overload" (translated from Hebrew); May 29, 2024. Length of episode: 44 minutes (in Hebrew).
8. Akintola T. *Positive treatment expectations may produce unexpected effects*. Oral Presentation at PAINtalks, Quebec Network of Junior Pain Investigators (QNJPI), Granby, Canada, Nov 2, 2023
9. Bellei-Rodriguez C-É, Raghuraman N, Clark JN, Watson L, Shafir L, Wang Y, and Colloca L. Implicit racial bias moderates the impact of self-reported race/ethnicity on socially induced placebo analgesic effects. Poster presented at: Society for Social Neuroscience annual meeting; March 25-28, 2024; Tsukuba, Japan
10. Cundiff-O'Sullivan RL, Wang Y, & Colloca L. Differential connectivity associated with pain outcomes by religious/spiritual belief. Poster presented at: the United States Association or the Study of Pain (USASP) 2024 Annual Scientific Meeting; April 14-17, 2024; Seattle, WA.
11. Shafir R. Placebo-induced expectancies enhance emotion regulation effectiveness and choice. Talk given online at: 2nd ScienceAbroad Psychology and Neuroscience Symposium; June 1, 2023; Washington, DC, USA.
12. Van Eron, L., White, J.N., Wang, Y, Colloca, L. Effects of Gonadal Hormones, Sex and Psychological Traits on Placebo Hypoalgesia in Individuals with Temporomandibular Disorders. Poster Presented at: University of Maryland Scholars Symposium; August 3, 2023; Baltimore, MD

13. Abase, J., Shafir, R. White, J.N., Wang, Y., Colloca, L. Neuromarkers of Pain Sensitivity and Modulation: A Peak-alpha Frequency Study. Poster Presented at: University of Maryland Scholars Symposium; August 3, 2023; Baltimore, MD
14. Cundiff-O'Sullivan RL, Wang Y, Colloca, L. (2023). Differential connectivity associated with pain outcomes by religious/spiritual belief. Oral presentation given at: the Center for Advancing Chronic Pain Research (CACPR) 2023 Symposium; October 26, 2023; Baltimore, MD, USA.
15. Muhammed S, Cundiff-O'Sullivan R, Duarte A, Colloca L, Wang Y. Exercise improves sleep in chronic pain patients: A feasibility interventional study with Ecological Momentary Assessment to capture long-term sleep patterns. Poster presented at: 2023 Johns Hopkins Sleep and Circadian Research Day; June, 2023, Baltimore, MD \*Awarded
16. Cundiff-O'Sullivan RL, Raghuraman N, Wang Y, Colloca L. Religiosity is related to expectation but not placebo effects. Poster presented at: 4<sup>th</sup> International Conference for the Society for Interdisciplinary Placebo Studies (SIPS); May 10-13, 2023; Duisburg, North Rhine-Westphalia, Germany
17. Cundiff-O'Sullivan RL, Raghuraman N, Wang Y, Colloca L. Religion/spirituality is related to expectation but not placebo effects. Oral presentation given at: Graduate Research Conference (GRC) and the University of Maryland Baltimore; March 31, 2023; Baltimore, Maryland, USA
18. Cundiff-O'Sullivan RL, Massalee, R, Wang Y, Colloca L. Examining changes in functional connectivity underlying the relationship between pain catastrophizing, chronic pain severity and pain disability. Poster presented at: 1<sup>st</sup> Annual Research Day at the University of Maryland School of Nursing; March 30, 2023; Baltimore, Maryland, USA
19. Cundiff-O'Sullivan RL, Massalee, R, Wang Y, Colloca L. Examining changes in functional connectivity underlying the relationship between pain catastrophizing, chronic pain severity and pain disability. Poster presented at: International Association for the Study of Pain (IASP) World Congress; September 19-23, 2022; Toronto, Ontario, Canada
20. Cundiff-O'Sullivan RL, Massalee R, Wang Y, Colloca L. An intrinsic pathway in the brain underlying the relationship between pain catastrophizing and chronic pain in temporomandibular disorders. Poster presented at: Association for Clinical and Translational Science (ACTS) 2022 Annual Meeting; April 19-22, 2022; Chicago, Illinois, USA
21. White JN, Wang Y, Massalee R, Colloca L. Brain Structural Signatures in Placebo Responders with Temporomandibular Disorders. Poster presented at the Society for International Placebo Studies Scientific Meeting 2023, Duisburg, Germany
22. White JN, Wang Y, Massalee R, Colloca L. Brain-Power & Placebo: Structural Brain Differences among High and Low Placebo Responders with Temporomandibular Disorders. Poster presented at the Greater Baltimore Society for Neuroscience Scientific Meeting 2022, Baltimore, MD
23. White JN, Wang Y, Massalee R, Colloca L. Brain-Power & Placebo: Structural Brain Differences among High and Low Placebo Responders with Temporomandibular Disorders.

Poster presented at the International Association for the Study of Pain World Congress 2022, Toronto, Canada

24. Miller SN, Amaden GH, Fisher HM, Winger JG, Somers TJ, Uronis HE, Colloca L, Keefe FJ, & Kelleher SA. Feasibility, acceptability, and safety of a virtual reality protocol for patients with advanced colorectal cancer. *2022 ABM Annual Meeting Abstracts Supplement, Annals of Behavioral Medicine*. 2022 Apr;56(S1):S455. doi:<https://doi.org/10.1093/abm/kaac014>
25. Gorner K J, Clemens KS, Sieg M, Vase L, Colloca L, Geers AL. Acceptability of Message Framing is Predicted by Existing Clinical Factors. Presentation accepted at the University of Toledo Undergraduate Research Exhibition, Toledo, OH. December 2021
26. Gorner KJ, Clemens KS, Sieg M, Vase L, Colloca L, & Geers A L. *Belief in the Nocebo Effect Predicts Side Effect Information Seeking and Avoidance Intentions*. Presentation accepted at the Social Personality Health Network, San Francisco, CA. November, 2021
27. Massalee R, Wang Y, Raghuraman N, Colloca L. The Impact of Virtual Reality on the Long-term Chronic pain outcomes: VR vs. Placebo component. Oral presentation at the Annual Society in Placebo Studies (SIPS) Conference on Placebo Studies, Baltimore, the US, May 26, 2021
28. Colloca L, Wang Y, Chang YPC, Mocci E, Ryan KA, Goldman D, Dorsey SG. How variations in opioid receptor mu subunit *OPRM1* rs1799971, Catechol-O-methyltransferase *COMT* rs4680, and fatty acid amide hydrolase *FAAH* rs324420 genes shape placebo hypoalgesia in chronic orofacial pain. Oral presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
29. Wang Y, Raghuraman N, Massalee R, Murthi S, Varshney A, Kier C, Colloca G, Colloca L. Individual Placebo Analgesic responses predict Virtual Reality-induced Analgesia in a Cohort of Chronic Pain. Oral presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
30. Thomas S, Colloca L. Clinical Characteristics of High Impact Pain in Adults with Temporomandibular Disorder. Poster at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
31. Oula D, Wang Y, Rao A, Wright T, Colloca L. The Relationship between Immigration Generation and Placebo Hypoalgesia. Oral presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
32. Varghese J, Wang Y, Finan PH, Colloca L. Effects of Sleep Quality and Insomnia Severity on Placebo Analgesia in Chronic Orofacial Pain Patients. Oral presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
33. Yin M, Wang Y, Colloca L. Use of Complementary and Integrative Medicine and Placebo Hyperalgesia: A cross-sectional study in chronic pain patients. Oral presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021

34. Cundiff-O'Sullivan RL, Wang Y, Thomas S, Akintola T, Dorsey S, Campbell CM, Colloca L. Impact of Pain Catastrophization on Pain and Placebo in Temporomandibular Joint Disorders. Poster presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
35. Raghuraman N, Wang Y, Akintola T, Haycock NR, Phillips J, Campbell CM, Dorsey S, Colloca L. Racial Differences in Placebo Hypoalgesia: A Case-Control Study. Poster presentation at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Baltimore, US, May 26-28, 2021
36. Wang Y, Raghuraman N, Schenk L, Furman A, Tricou C, Seminowicz D, Colloca L. The influences of observational learning on pain perception and its neural correlates. Poster session presented at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Leiden, The Netherlands, July 8, 2019
37. Olson E, Wang Y, Akintola L, Haycock N, Phillips J, Raghuraman N, Schenk L, Blasini M, Corsi N, Thomas S, Martinez PE, Colloca L. Effects of sex on expectancy and placebo analgesia in chronic orofacial pain patients. Poster session presented at the Society for Interdisciplinary Placebo Studies (SIPS), International Conference, Leiden, The Netherlands. July 9, 2019
38. Olson E, Wang Y, Akintola L, Haycock N, Phillips J, Raghuraman N, Schenk L, Blasini M, Corsi N, Thomas S, Martinez PE, Colloca L. Effects of gonadal hormones on expectancy and placebo analgesia in chronic orofacial pain patients. Poster session presented at Society for Interdisciplinary Placebo Studies (SIPS), Leiden, PIN retreat, Baltimore. June 5, 2019
39. Tricou C, Zhu S, Akintola T, Haycock H, Phillips J, Colloca L, Predictors of Placebo Analgesic Effects in Healthy and Chronic Pain Participants. World Congress on Pain, Boston, MA, United States. September 14, 2018
40. Akintola T, Haycock N, Okusogu C, Tricou C, Thomas S, Corsi N, Schenk L, Patel R, Blasini M, Phillips J, Renn C, Dorsey S, Colloca L, The Effect of Race on Expectancy-Induced Analgesia in Temporomandibular Joint Disorder. World Congress on Pain, Boston, MA, United States. September 15, 2018
41. Thomas S, Park K, Akintola T, Haycock N, Tricou C, Phillips J, Wang Y, Renn C, Colloca L, Clinical Characteristics of Pain Severity in a TMD cohort: A descriptive study. World Congress on Pain, Boston, MA, United States. September 16, 2018
42. Raghuraman N, Schenk L, Furman A, Tricou C, Seminowicz D, Colloca L, The Influence of Social Observational Learning on Pain Perception. World Congress on Pain, Boston, MA, United States. September 16, 2018
43. Skvortsova A, Veldhuijzen D, van Middendorp H, van den Bergh O., Colloca L, A Evers, Can Oxytocin Influence Placebo and Nocebo Effects in Somatic Symptoms. World Congress on Pain, Boston, MA, United States. September 16, 2018
44. Damien J, Léonard G, Chalaye P, Colloca L, Marchand S. Conditioned Pain Modulation, Hypnosis and Placebo Treatments. World Congress on Pain, Boston, MA, United States. September 16, 2018

45. Akintola T, Colloca L, Studlack P, Masri R, Keller A Placebo Analgesia and Neuropathic Pain: Insights from a Novel Rodent Model, PIN Retreat, Notre Dame University, Baltimore, MD, United States. June 8, 2018
46. Okusogu C, Akintola T, Thomas S, Haycock H, Colloca L, Racial and ethnic influences on pain modulation and management: a scoping review with preliminary data analysis. MPowering The State Scholars, University of Maryland, Baltimore, MD, United States. July 27, 2018
47. Akintola T, Colloca L, Studlack P, Masri R, Keller A, Placebo Analgesia and Neuropathic Pain: Insights from a Novel Rodent Model, International Congress on Integrative Medicine & Health, Baltimore, MD, United States. May 10, 2018
48. Haycock N, Akintola T, Blasini M, Schenk L, Phillips J, Campbell C, Corsi N, Patel R, Raghuraman N, Benavent V, Wright T, Dorsey S, Renn C, Chang C, Ambulos N, Goldman D, Martinez P, Greenspan J, Colloca L. Clinical Pain Characteristics and Placebo Analgesia in Patients with Temporomandibular Disorder, International Congress on Integrative Medicine & Health, Baltimore Convention Center, Baltimore, MD, United States. May 9, 2018
49. Patel R, Haycock N, Akintola T, Blasini M, Schenk L, Phillips J, Campbell C, Corsi N, Patel R, Raghuraman, N, Benavent V, Wright T, Dorsey S, Renn C, Chang C, Ambulos N, Goldman D, Martinez P, Greenspan J, Colloca L. Exploration of expectancy-induced analgesia in patients with Temporomandibular Disorder, University of Maryland Baltimore County Center for Women in Technology, University of Maryland Baltimore County, Baltimore, MD, United States. May 9, 2018
50. Schenk L, Colloca L. DLPFC-TPJ connectivity mediates observational learning in placebo hypoalgesia, Maryland Neuroimaging Retreat: Molecular and Physiological Basis of Brain Signals, Baltimore, MD, United States. April 25, 2018
51. Raghuraman N, Tricou C, Schenk L, Colloca L. The influence of social observational learning on pain perception, 2018 Maryland Neuroimaging Retreat: Molecular and Physiological Basis of Brain Signals, University of Maryland, Baltimore, University of Maryland, Baltimore, MD, United States. April 25, 2018
52. Raghuraman N, Schenk L, Colloca L. Influence of Social Observational learning. Pain Perception. Graduate School at the University of Maryland Baltimore, University of Maryland Baltimore, Baltimore, MD, United States. March 15, 2018
53. Corsi N, Ludman T, Fiorio M, Colloca L. The role of expectations in motor-induced analgesia. 16<sup>th</sup> Annual Pain Medicine Meeting, Lake Buena Vista, Florida, November 16-18, 2017
54. Schenk LA, Colloca L. Social observational learning and pain modulation: An fMRI approach. Society for Neuroscience 2017. Nov 14, 2017
55. Schenk LA, Colloca L. Social observational learning and placebo hypoalgesia: an fMRI study. Brain Baltimore Series, Baltimore, MD, United States. Nov 8, 2017

56. Blasini M, Schenk LA, Phillips J, Campbell C, Corsi N, Patel R, Raghuraman N, Benavent V, Wright T, Dorsey SG, Renn C, Ambulos N, Chang C, Goldman D, Martinez PE, Greenspan J, Colloca L. PHENOTYPING EXPECTANCY-INDUCED ANALGESIA IN PATIENTS WITH TEMPOROMANDIBULAR DISORDER. EFIC Pain Congress - European Pain Federation. Copenhagen, Denmark. Sept 7, 2017
57. Blasini M, Corsi N, Klinger N, Colloca L. Nocebo effects in pain management: Psychological mechanisms and practical strategies for improving clinical outcomes. PAINWeek. Las Vegas, United States. Sept 8, 2017
58. Corsi N, Taylor L, Colloca L, 1st International conference – SIPS. How motor-induced analgesia shapes placebo and nocebo effects in a heat model of human pain. Society for Interdisciplinary Studies of Placebo (SIPS), Leiden, Netherlands. April 4, 2017
59. Schenk L, Colloca L, 1st International conference, "Mismatch cues attenuate placebo hypoalgesia and nocebo hyperalgesia," Society for Interdisciplinary Studies of Placebo (SIPS), Leiden, Netherlands. April 4, 2017
60. Colloca L, TMJA meeting, "A Prediction Error Model of Placebo Analgesia and its Extinction," Bethesda, MD, United States. September 13, 2016
61. Blasini M, Corsi N, Schenk L, Colloca L, NACS Research Day (Neuroscience and Cognitive Science), "Expectancy-induced analgesia in patients with Temporomandibular Disorder: a cohort study," UM College Park, College Park, MD, United States. April 28, 2017
62. Blasini M, Corsi N, Schenk L, Colloca L, 1st International conference - SIPS, "Exploration of expectancy-induced analgesia in patients with Temporomandibular Disorder: a cohort study," Society for Interdisciplinary Studies of Placebo (SIPS), Leiden, Netherlands. April 4, 2017
63. Schenk L, Sprenger C, Onat S, Colloca L, Buchel C, Baltimore SfN Meeting, "Persisting placebo hypoalgesia is related to altered neural processing of pain via prefrontal-striatal pathways," Baltimore SfN, Baltimore, United States. December 7, 2016
64. Schenk L, Sprenger C, Onat S, Colloca L, Buchel C, Neuroscience of Pain, "Conceptual beliefs bias the neural processing of pain in the ventral striatum in placebo analgesia," American Psychosomatic Society, New York, United States. October 15, 2016
65. Schenk L, Sprenger C, Onat S, Colloca L, Buchel C, 16 International Conference on Pain, "Persisting placebo hypoalgesia is related to altered neural processing of pain via prefrontal-striatal pathways," IASP, Yokohama, Japan. September 30, 2016
66. Corsi N, Ludman T, Colloca L, 16 International Conference on Pain, "Positive and negative expectations modulate motor induced analgesia," IASP, Yokohama, Japan. September 29, 2016
67. Ludman T, Colloca L, Livesey E, Colagiuri B. Prediction Error-Based Model for Estimating Pain-Related Placebo Effects and their Extinction Rates. Society of Behavioral Medicine, which will be held March 30-April 2, 2016

## **TEACHING AND MENTORING ACTIVITIES**

Primary mentor – The Collocalab personnel

### **Junior faculty**

2022-present Dr. Yang Wang, PhD, tenure-track assistant professor, University of Maryland School of Nursing Baltimore, MD

### **Staff Scientist**

2023- Dr. Titilola (Lola) Akintola, PhD, Research Staff Scientist, University of Maryland School of Nursing Baltimore, MD

### **Research coordinators**

2024- Gabriella Thomas, University of Maryland School of Nursing, Baltimore, MD

2023- Katia Matychak, MS, University of Maryland School of Nursing, Baltimore, MD

### **Post-doctoral students – Current:**

2024-present Belina Rodrigues, University of Maryland, School of Nursing, Baltimore, MD

2024-present Nandini Raghuraman, University of Maryland School of Nursing, Baltimore, MD

2021-present Roni Shafir, University of Maryland School of Nursing, Baltimore, MD

### **PhD students - current:**

2024-present James Cottam, Program in Epidemiology and Human Genetics PhD student, School of Medicine, University of Maryland, Baltimore, MD, US

2024-present Mumtahana Nabi, Program in Epidemiology and Human Genetics PhD student, School of Medicine, University of Maryland, Baltimore, MD, US

2023-present Lakota Watson, Program in Neuroscience (PIN) PhD Student University of Maryland, Baltimore, MD, US

**\*TL1 Pre-doctoral scholarship awardee – 2023-2024**

### **PhD students - Past:**

2022-2024 Jewel Nuru (White) Clark\*, Program in Neuroscience (PIN) PhD Student University of Maryland, Baltimore, MD, US

**\*R21 Diversity Supplement student awardee – 2022-2023**

2020-2024 Nandini Raghuraman, Program in Epidemiology and Human Genetics PhD student, School of Medicine, University of Maryland, Baltimore, MD, US

2020-2024 Emily Werthman, Nursing program PhD student, UMSON School of Nursing, University of Maryland Baltimore, MD, US (part-time student)

2020-2023 Rachel L. Cundiff-O'Sullivan\*, Program in Neuroscience (PIN) PhD Student University of Maryland, Baltimore, MD, US

**\*TL1 Pre-doctoral scholarship awardee – 2021-2022**

2017-2023 Sharon Thomas, Nursing program PhD student, UMSON School of Nursing, University of Maryland Baltimore, MD, US (part-time student)

2019-2020 Theresa Bedford (co-mentor), Uniformed Services University PhD student, Bethesda, MD

2017-2020 Titilola 'Lola' Akintola, GPILS (Toxicology program) PhD student, University of Maryland Baltimore, MD

2015-2016 Nicole Corsi, Visiting PhD Student, University of Verona, Italy (one year)

### **PHD DEFENSES (PRIMARY MENTOR):**

- June 16, 2017 Nicole Corsi, PhD program in neuroscience, psychological and psychiatric sciences, Verona, Italy (international mentor). Thesis title: PLACEBO AND NOCEBO EFFECTS IN THE MOTOR SYSTEM: Neurophysiological correlates, individual differences and the relation with pain perception. Defense: June 16, 2017
- April 21, 2020 Titilola 'Lola' Akintola, GPILS (Toxicology program) PhD student, University of Maryland Baltimore, MD. Thesis title: Placebo Analgesia in Chronic Neuropathic Pain: A Translational Investigative Approach from Rodents to Humans Defense: April 21, 2020
- June 22, 2023 Sharon Thomas, PhD in Nursing, University of Maryland School of Nursing, Baltimore, MD. Thesis title: Resilient Factors and Their Relationship to Chronic Orofacial Pain and Patient Expectations of Analgesia
- Oct 23, 2023 Rachel L. Cundiff-O'Sullivan, Program in Neuroscience (PIN) PhD, University of Maryland, School of Medicine Baltimore, MD. Thesis title: Biological, psychological, and sociocultural contributions to pain processing in the central nervous system: A whole-person approach to understanding chronic pain.
- April 18, 2024 Nandini Raghuraman, GPIL, University of Maryland, School of Medicine Baltimore, MD. Thesis title: The Relationship Between Socioeconomic Position And Endogenous Pain Modulation: A Quasi-Experimental Approach
- April 19, 2024 Emily Werthman, Nursing program, University of Maryland, School of Nursing Baltimore, MD. Thesis title: Characteristics of Pain in Survivors of Childhood Adversity.
- July 8, 2024 Jewel White, Program in Neuroscience (PIN) PhD, University of Maryland, School of Medicine Baltimore, MD. Thesis Title: A biopsychosocial model to study interindividual differences in placebo effects. Translational approach for acute and chronic pain management.

### **International PhD Evaluator:**

- 2019 Bernardo Villa Sánchez, University of Verona, Italy
- 2018 Felicity Braithwaite, University of South Australia
- 2012 Damien Finniss University of Sydney, Sydney Medical School, Australia

### **Post-doctoral students - Past:**

- 2023-present Carmen –Edith Bellei-Rodriguez, University of Maryland School of Nursing Baltimore, MD
- 2015-2018 Lieven A. Schenk, PhD, Postdoctoral student, University of Maryland School of Nursing, US
- 2013-2016 Dominic Nathan, PhD, Postdoctoral Fellow, National Institute of Mental Health, Bethesda & VHA Medical Center

### **MD Graduate Student(s):**

- 2022-present Uwagbale (Uwa) Okojie - University of Maryland School of Medicine, Baltimore, MD  
Alexis Green - University of Maryland School of Medicine, Baltimore, MD  
Dina Elsaesser - University of Maryland School of Medicine, Baltimore, MD
- 2021-present Ariana Taj - University of Maryland School of Medicine, Baltimore, MD

### **PRIMS Scholarship – MD Graduate Students - Past:**

- 2021 Aniruddha Rao - University of Maryland School of Medicine, Baltimore, MD
- 2020 Esther Chang – University of Maryland School of Medicine, Baltimore, MD

2019 Elizabeth Olson – University of Maryland School of Medicine, Baltimore, MD

**MPowering the State Summer Scholar(s) – Present and Past:**

2024 Megha Chander, UM College Park, MPowering the State Initiative UMSON Scholar research program  
Princess Atud, UM College Park, MPowering the State Initiative UMSON Scholar research program  
Kayla Morris, UM College Park, MPowering the State Initiative UMSON Scholar research program

2023 Lindsey Baldwin, UM College Park, MPowering the State Initiative UMSON Scholar research program  
Joshebel Abase, UM College Park, MPowering the State Initiative UMSON Scholar research program  
Lucy Van Eron, UM College Park, MPowering the State Initiative UMSON Scholar research program

2022 Jane Quackenbush - UM College Park, MPowering the State Initiative UMSOM Scholar research program

2022 Nhi Tran - Salim Muhammed - UM College Park, MPowering the State Initiative UMSON Scholar research program

2022 Salim Muhammed - UM College Park, MPowering the State Initiative UMSOM Scholar research program

2022 Manmeet Sandhu - Salim Muhammed - UM College Park, MPowering the State Initiative UMSON Scholar research program

2021 Kira Mazel - UM College Park, MPowering the State Initiative UM Scholar research program

2021 Michelle Soltz - UM College Park, MPowering the State Initiative UM Scholar research program

2020 Julianne Austin - UM College Park, MPowering the State Initiative UM Scholar research program

2020 Jeril Susan Varghese - UM College Park, MPowering the State Initiative UM Scholar research program

2020 Desai Oula - UM College Park, MPowering the State Initiative UM Scholar research program

2020 Rohan Lajani - UM College Park, MPowering the State Initiative UM Scholar research program

2019 Alexis Saunders, UM College Park, MPowering the State Initiative UM Scholar research program

2018 Chika Okusogu, UM College Park, MPowering the State Initiative UM Scholar research program

2017 Shiva Movsav, UM College Park, MPowering the State Initiative UM Scholar research program

2016 Zachary Lupuloff, UM College Park, MPowering the State Initiative UM Scholar research program

**Conway Scholar(s) - Past:**

2019 Ling Hong – School of Nursing University of Maryland, MD

**High School student(s) - Past:**

2021 Emily Sun, Gifted and Talented Research Teacher Glenelg High School, MD  
2019 Maggie Yin, Gifted and Talented Research Teacher Glenelg High School, MD

**MD Graduate students - Past:**

- 2016-2018 Nathalie Peiris, Resident in Anesthesiologist, University of Maryland, School of Medicine, Baltimore, USA
- 2013–2016 Robin Ortiz, NIH-Medical Research Scholars Program (MRSP), National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD, USA

**Master Student(s) - Past:**

- 2021 Stefani Shepard – Georgetown University, Washington, DC
- 2021 Araceli Romero Jimenez - Georgetown University, Washington, DC
- 2016-2018 Nandini Raghuraman, Master student, UM Medical and Research Technology (Graduation April 27, 2018)
- 2016 Maxie Blasini - Georgetown University, Washington, DC
- 2017 Nathaniel R. Haycock - Georgetown University, Washington, DC
- 2019 Rachel Maselee - Georgetown University, Washington, DC

**Junior faculty - Past:**

- 2019-2022 Ana Duarte – University of Maryland School of Nursing, Baltimore, MD
- 2019-2023 Chamindi Seneviratne – University of Maryland School of Medicine, Baltimore, MD
- 2016-2018 Annabelle (Mimi) Belcher – University of Maryland School of Medicine, US
- 2015-2020 Jane Phillips, clinician, School of Dentistry, University of Maryland, Baltimore
- 2015 Ben Colagiuri – University of Sydney, Australia
- 2015 Przemyslaw Babel – University of Poland, Poland

**Summer Research Assistants - Past:**

- 2018 Samuel Philips, UM College Park
- 2018 See Eu Lee, UM College Park

**Undergraduate Students - Past:**

- 2018- 2019 Christina Tricou, GPILS (Neuroscience program, Rotation) PhD student, University of Maryland Baltimore, US
- 2018-2019 Timileyin Adediran, University of Maryland Epidemiology Program, Rotation, Baltimore, US
- 2017-2018 Miriam Weiss, Research Assistant, UM School of Nursing
- 2017-2018 Ria Patel, Research Assistant, UM College Park
- 2017-2019 Kristina Park, Federal study work position, UM School of Nursing
- 2018-2019 Mazine Anjorin, Federal study work position, UM School of Medicine
- 2018-2019 Soojin Yim, Volunteer Research Assistant, UM College Park
- 2018 See Eu Lee, Volunteer Research Assistant, UM College Park
- 2017-2018 Zofia Kozak, PRISM fellow/MD student, UM PRISM School of Medicine, USA
- 2016-2017 Roshni Patel, Research Assistant, West Virginia School of Osteopathic Medicine
- 2013–2014 Brian Bustos, undergraduate student, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2012-2013 Adam Horin, undergraduate student, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2012 Kent Lee, PhD student, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2011 Francis Bustos, IRTA, National Institutes of Health (NIH), Bethesda, MD, USA

- 2011 Sarah Hammond, IRTA, National Institutes of Health (NIH), Bethesda, MD, USA
- 2013-2014 April Lee, undergraduate student, National Center for Complementary and Integrative Medicine (NICCH), Bethesda, MD, USA
- 2012-2014 Kanasha Simmons, IRTA, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2012-2014 Tom Liang, IRTA, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2012-2013 Connor Jobes, undergraduate student, National Institute of Mental Health (NIMH), National Institutes of Health (NIH), Bethesda, MD, USA
- 2008-2009 Serena Pileggi, Medical School student, University of Turin Medical School, Obstetrics, Turin, Italy
- 2008-2009 Giulia Chiosso, Medical School student, University of Turin Medical School, Obstetrics, Turin, Italy
- 2007-2008 Giada Mastrodomenico, Medical School student, University of Turin Medical School, Obstetrics, Turin, Italy
- 2005-2008 Jean-Louis Aillon, Medical School student, University of Turin Medical School, Turin, Italy

Staff scientist –Past:

2021-2023 Yang Wang, Research Staff Scientist, University of Maryland Baltimore, MD

Past Research Coordinators, research assistants and technicians:

- 2021-2023 Rachel Massalee, Project Research Coordinator
- 2017-2020 Nathalien R Haycock, Research Coordinator, University of Maryland, Baltimore
- 2019-2020 Se Eun Lee, Clinical research coordinator, BS, University of Maryland, Baltimore
- 2018-2019 Nandini Raghuraman, Research Assistant, UM SOM
- 2017 Brooks Dubose, Research Coordinator, University of Maryland Baltimore, US
- 2016-2017 Maxie Blasini, Research Coordinator, University of Maryland Baltimore, US
- 2015-2016 Taylor Ludman, Research Coordinator, University of Maryland Baltimore, US

Past DISSERTATIONS (PRIMARY MENTOR AND SUPERVISOR)

- 2007-2008 Giada Mastrodomenico, Midwifery School student, University of Turin School of Obstetrics, Turin, Italy
- 2007-2008 Monica Siguado, University of Turin School of Medicine, Turin, Italy
- 2008-2009 Serena Pileggi, Midwifery School student, University of Turin School of Obstetrics, Turin, Italy
- 2008-2009 Giulia Chiosso, Midwifery School student, University of Turin School of Obstetrics, Turin, Italy

**COURSE TEACHING**

UNDERGRADUATE LEVEL

- 2003-2009 Course of Neuroscience at the University of Turin Medical School, Turin, Italy (MD students)
- 2003-2009 Course of Human Physiology- *Laurea in Infermieristica Pediatrica e Ostetricia*, University of Turin Medical School, Turin, Italy (nurse studs)
- 2003-2009 Course of Human Physiology, *Laurea in Infermieristica*, University of Turin Medical School, Aosta, Italy (nurse studs)

- 2009 Course of Pain management and Neurophysiology - *Laurea in Infermieristica Pediatrica e Ostetricia*, University of Turin Medical School, Turin, Italy
- 2015-current Instructor and coordinator for NURS418/724: Pain management (Elective course) at the University of Maryland School of Nursing (undergraduate studs)
- 2015-2016 Lecturer for the Journal Club of the GPILS, University of Maryland Baltimore
- 2016-current Lecturer – SON NRS603: Advanced *Pharmacology*: Coordinator: Joseph E Pellegrini
- 2017-current Lecturer – SON NPHY862: Psych. Mental DNP – Coordinator: Lynn Oswald
- 2018 Lecturer – SOM Department of Anesthesiology – Coordinator: Thelma Wright
- 2022-present Lecturer – SON Grant Writing – Coordinator: Cynthia Renn

#### POST-GRADUATE LEVEL

- 2003-2009 Module of Neuroscience at the Master on Palliative Care, University of Turin Medical School, Turin, Italy (physicians)
- 2004 Course of Neurophysiology, Master of *Metodologia clinica delle cefalee e delle nevralgie craniche, Ricerca e Terapia*, University of Turin Medical School, Italy
- 2008 Course of Neurophysiology, Master of *Metodologia clinica delle cefalee e delle nevralgie craniche, Ricerca e Terapia*, University of Turin Medical School, Italy
- 2009-2013 Course of Pain Management - *Laurea in Infermieristica Pediatrica e Ostetricia*, University of Turin Medical School, Turin, Italy
- 2009-2010 Postgraduate Course “Diagnosis and Treatment of oral facial pain”, Consortium University of Cagliari and Bicocca University, Milan, Italy
- 2015-current Lecturer – Georgetown CAM Program Master, University of Georgetown, Washington, DC
- 2016-current Lecturer - GPLS 775: Interface of Pain, Affect, and Addiction, University of Maryland Baltimore, Coordinators: Mary Kay Lobo (SOM) and David Seminowicz (SOD)
- 2016-current Lecturer – NURS 850 01 EXPERIMENTAL NURSING RESEARCH DESIGNS: Experimental Nurse Research Design. Coordinators: Mary Regan (SON)
- 2016-current Lecturer – SOM CIPP907: Ethics; Coordinator: Adam C. Puche
- 2016-current Lecturer – SOD NPSC 521A: Neuroscience of Pain; Coordinator: Wei Feng
- 2016-Current Lecturer - Biology and Biotechnologies PhD Program, L. Spallanzani University of Pavia, Italy

#### **PROFESSIONAL SOCIETY MEMBERSHIPS**

- 2021-present US American Society for Pain (USASP)
- 2006-present International Association for the Study of Pain (IASP)
- 2016-2018 Society for Neuroscience (SfN)

#### **SCIENCE DISSEMIANTION | MEDIA EXPOSURE (2010-present)**

1. 2010 - Rebecca Tuhus-Dubrow, **Boston Globe**
2. 2010 - Jessica Hamzelou, **New Scientist**
3. 2010 - David Wild, **Pain Medicine News**
4. 2010 - Scienceline.org
5. 2010 - Chris Berdik, book author
6. 2010 - Gary Greenberg, freelance for Harper's, **The New Yorker**, Wired
7. 2011 - **Gastroenterology and Endoscopy News**

8. 2011- Jessica Hamzelou, **New Scientist**
9. 2011 - Clinical Center News (NIH)
10. 2011- Stephen Pincock, **The Australian**
11. 2011- Michael Specter, **The New Yorker**
12. 2011- Kristen Dold, **Women's Health Magazine**
13. 2011 - **Medical Tribune**
14. 2012 - Helen Albert, **COSMOS Magazine** (Australia)
15. 2012 - Chris Berdik, **Boston Globe**
16. 2012 - Deborah Kotz, **Boston Globe** 2012 -Tina Verma, **The Nature of Things** (Canada)
17. 2012 - Annabel McGilvray, **General Practitioner Magazine** (Australia)
18. 2012 - Susan Perry, **Society for Neuroscience**
19. 2012 - Richard Bukata, **Primary Care Medical Abstracts and Emergency Medical Abstracts**
20. 2012 - Helen Foster, **Easy Living**
21. 2013 - David Holzman, **New Scientist**
22. 2014 - Clinical Center, **NIH, Newsletter**
23. 2014 - Eric Vance, **Discover Magazine**, Special Issue, July/Aug 2014
24. 2015 – Stacy Lu, **Psychology and gradPSYCH** magazines, American Psychological Association
25. 2015 – Penny Sarchet, **New Scientist**
26. 2015 - Ashley Yeager, **Science News**
27. 2015 – Alessandro Pagnini, **Sole24 ore**
28. 2015 – Rory Carroll, **The Guardian**
29. 2015 - Meghan Rabbitt, **Dr. Oz magazine**
30. 2015 – Jessika Hamzelow, **New Scientist** (Jan 2015)
31. 2015 - Science Daily (July 2015)
32. 2015 – Jessika Hamzelow, **New Scientist** (Aug 2015)
33. 2015 – Jessika Hamzelow, **New Scientist** (Dec 2015)
34. 2015 – Stacey Colin, U.S. **News and World Reports** (Oct 2015)
35. 2016 – Rhiannon Bugno - **Biological Psychiatry Press** release (May 2016) Placebo Effects in Women Are Boosted by Vasopressin
36. 2016 – **Science News** (May 2016) -Placebo effects in women are boosted by vasopressin –
37. 2016 - Women's placebo effects boosted by vasopressin – (May 2016) - **International Federation of Gynecology and Obstetrics (FIGO)**
38. 2016 – Florence Chaverneff –An Insight Into Mechanisms of Action of Placebo Effects for Pain Modulation - **Clinical Pain Advisor** (May 2016)
39. 2016 - Nancy Menefee Jackson, **SON Magazine & Baltimore Sun** (June 2016) – Effective Pain management
40. 2016 – Jo Marchant – **Nature** (July 14) – Placebos: Honest fakery
41. 2016 – Sumathi Reddy - **The Wall Street Journal** (July 18) - Why Placebos Really Work: The Latest Science
42. 2016 – David Garner – **Daily Mail.com** – Health (July 20) Placebos DO work: Bogus pills 'trigger similar healing process to real drugs' - and have helped people with migraines, IBS and Parkinson's
43. 2016 – Cindy Lampner - **Clinical Pain Advisor** – Addiction/Pain (Aug 17) - Placebos Extending Painkiller Doses
44. 2016 – Kathryn Doyle - **Reuters Health** - (Sept 1<sup>st</sup>) - Expectations may influence side effects of breast cancer hormone therapy
45. 2016 - **BodyInMind.org** (Sept 15) - Research into the role of the brain and mind in chronic pain disorders

46. 2016 – Kirsty Oswald – The Pharmaceutical Journal (Nov 4) - Brain scans predict placebo responses in chronic pain patients
47. 2016 – Erik Vence & Erika Larsen (Dec 26) – **The National Geographic**: Unlocking the healing power of you.
48. 2016 – Erik Vence – **The Spectrum news** (Nov 30) - Why trials of autism treatments have a placebo problem
49. 2016 – Andrew Neil – **Pain Research Forum** – (Dec 2) Talking the Science of Placebo Analgesia with Award-Winning Young Pain Researcher Luana Colloca
50. 2017 – Tim Gower – **Arthritis Today** (March 6) – Fake Therapies that work: Placebos may ease symptoms – even you know they’re not real.
51. 2017 - Massimiliano Russano – **Epoch times** (April 4) -
52. 2017 – Brian Resnick – **Vox** (July 7, 2017) - The weird power of the placebo effect, explained
- 2017 – Adrienne Arthur – (Sept 5, 2017) Aug 2017- Amy Norton – **Health Day Reporter** - Does a Drug's High Price Tag Cause Its Own Side Effects?
55. 2017 – **ABC-saludos** - El 'alto precio' del efecto nocebo sobre la salud -
56. 2017 - Peter Hess – **INVERSE Science**
57. 2017- Kate Sharidan – **Newsweek**
58. 2017 - Dave Ross – **Seeker** - The Nocebo Effect Shows Pain Isn’t All in Your Brain.
59. 2017 – **CBC-News | Health** - Why side-effects may seem worse for high-priced drugs
60. 2017 – **Health24** - High-priced medicines can actually make people sick
61. 2017 - Beth More - **Ars Technica UK** - Potent Nocebo: The more expensive a harmless cream, the more pain it inflicts.
62. 2017 - Tien Nguyen - **Chemical & Engineering News** - People may expect more side effects from pricier drugs.
63. 2017 - MIGUEL ÁNGEL CRIADO - **EL PAIS** - El precio de un fármaco agrava sus efectos secundarios: así funciona el efecto nocebo.
64. 2017 - **IntraMed | Noticias médicas** - ¿El alto precio de un medicamento provoca sus propios efectos secundarios?
65. 2017 - Walter Alexander - **P&T Community**- It’s Time to Listen to the Dummy What It Means When the Modest Placebo Speaks.
66. 2017 - Tina Simoniello – **La Repubblica** - Effetto nocebo: se il farmaco sembra più caro potrebbero aumentare gli effetti avversi
67. 2017 - Tages-Anzeiger - Mehr eingebilddete Nebenwirkungen bei teuren Therapien.
68. 2017 - **ABC | Salud** - El 'alto precio' del efecto nocebo sobre la salud.
69. 2017 (Nov 11) - **ABC News (Australian Broadcasting Corporation)** - Health Report - presented by Nocebo effect could be making you feel sick - [www.abc.net.au/radionational/programs/...effect.../9167506](http://www.abc.net.au/radionational/programs/...effect.../9167506)
70. 2017 (Dec 11) - David C. Holzman - **Pain Medicine News, Sciences and Technologies**, Nocebo Effects May Hold Answers to Numerous Chronic Pain...
71. 2018 (March 25) - Rachel Brazil - Nocebo: the placebo effect’s evil twin. **The Pharmaceutical Journal**. <https://www.pharmaceutical-journal.com/news-and-analysis/features/nocebo-the-placebo-effects-evil-twin/20204524.article>
72. 2018 (April 11) – Erik Vance – **PBS Newshour** - The placebo effect’s role in healing, explained <https://www.pbs.org/newshour/science/the-placebo-effects-role-in-healing-explained>
73. 2018 (April 11) - Nsikan Akpan - **PBS Newshour** - The science of using your expectations to relieve pain. <https://www.pbs.org/newshour/show/the-science-of-using-your-expectations-to-relieve-pain>

74. 2018 (May 13) - DAVID RAKEL • SUSAN GOLANT – **Salon** - Bedside manner matters: Why AI will never beat a good doctor
75. 2018 (July 18) – Aimee Cunningham – **Science News** – How a variation on Botox could be used to treat pain <https://www.sciencenews.org/article/how-variation-botox-could-be-used-treat-pain>
76. 2018 (Sept 21) - Heather Cruickshank - **HEALTH NEWS** - Want Help for Chronic Pain? Try Sugar Pills  
<https://www.healthline.com/health-news/want-help-for-chronic-pain-try-sugar-pills#1>
77. 2018 (Nov 13) Jena Frick - **UMB News** - TEDx Amplifies UMB's Cutting-Edge Innovations – <https://www.umaryland.edu/news/archived-news/november-2018/newspresreleaseshottopics/tedx-amplifies-umbs-cutting-edge-innovations.php>
78. 2019 (March 7) Isabelle Kohn - **MEL beta** - PLACEBOS CAN TREAT DEPRESSION. SO WHY DON'T WE USE THEM MORE OFTEN? <https://melmagazine.com/en-us/story/placebos-can-cure-depression-so-why-dont-we-use-them-more-often>
79. 2019 (March 15) Mary T. Phelan – **UMB News** - Collaboration Comes to Life at MPower Day.  
<https://www.umaryland.edu/news/archived-news/march-2019/newspresreleaseshottopics/collaboration-comes-to-life-at-mpower-day.php>
80. 2019 (March 27) Shayla Love - **vice** - The Power of the Nocebo Effect  
[https://www.vice.com/en\\_us/article/59xe9b/the-power-of-the-nocebo-effect-v26n1](https://www.vice.com/en_us/article/59xe9b/the-power-of-the-nocebo-effect-v26n1)
81. 2019 (June 15) Adam Goldstein and Cristy Page – **YOUR HEALTH®Radio** – UNC Family Medicine's weekly health show. <https://yourhealthradio.org/2019/06/14/the-real-science-behind-tricks-of-the-mind/>
82. 2019 (June 18) Marc Gozlan - **Le Monde**  
[https://www.lemonde.fr/sciences/article/2019/06/18/nous-sommes-inegaux-devant-le-placebo\\_5477733\\_1650684.html](https://www.lemonde.fr/sciences/article/2019/06/18/nous-sommes-inegaux-devant-le-placebo_5477733_1650684.html)
83. 2019 (Aug 16, 2019) -Catherine Zuckerman, Staff Writer, Science - **National Geographic Partners**  
<https://www.nationalgeographic.com/science/2019/08/newly-discovered-organ-may-be-lurking-uinder-your-skin-senses-pain/>
84. 2019 (Aug 17, 2019) - Michael Broder, **MedPage Today** online: Biosimilars: countering dangers placebos evil twin - <https://www.medpagetoday.com/resource-centers/biosimilars/countering-dangers-placebos-evil-twin/2427>
85. 2019 (Sept 25, 2019) - Par Marie-Catherine Mérat, **Science & VIE**: Placebo: vers une révolution médicale - <https://www.science-et-vie.com/corps-et-sante/placebo-vers-une-revolution-medicale-51447>
86. 2019 (Sept 30, 2019) – N1 Beograd, Bol u donjem dijelu leđa - vježbanje djeluje bolje od terapija  
<http://ba.n1info.com/Lifestyle/a381303/Bol-u-donjem-dijelu-ledja-viezbanje-djeluje-bolje-od-terapija.html>
87. 2019 (Oct 28, 2019) Daniel Kolitz – **GIZMODO** – Why do placebos 'work'?  
<https://gizmodo.com/why-do-placebos-work-1837983414>
88. 2019 (Oct 28, 2019) – Alexander Spinelli – **STAT** – Health – Medicine may work better if your doctor seems to believe it will work, new study suggests -  
<https://www.statnews.com/2019/10/28/placebo-effect-facial-cues/>
89. 2019 (Nov 14, 2019) – Markham Heid – **Medium Elemental** – The nuance – The 'Nocebo Effect' may be even stronger than placebo' - <https://elemental.medium.com/the-nocebo-effect-may-be-even-stronger-than-placebo-428ba0f32d7e>

90. 2019 (Nov 23, 2019) - Erika Pilpre – **The daily journal** – The placebo effect.  
[https://www.smdailyjournal.com/opinion/columnists/the-placebo-effect/article\\_834edba2-0d93-11ea-b40d-bfc2df14979b.html](https://www.smdailyjournal.com/opinion/columnists/the-placebo-effect/article_834edba2-0d93-11ea-b40d-bfc2df14979b.html)
91. 2019 (Dec 17, 2019) – Yudhijit Bhattacharjee – **National Geographic**. Scientists are revealing the mysteries of pain.  
<https://www.nationalgeographic.com/magazine/2020/01/scientists-are-unraveling-the-mysteries-of-pain-feature/>
92. 2020 (Jan 10, 2020) – Sinlke Schmidt – **Science News** - Viewing virtual reality of icy landscapes may relieve pain. <https://www.sciencenewsforstudents.org/article/viewing-virtual-reality-of-icy-landscapes-may-relieve-pain>
93. 2020 (Winter, Vol. 7 No3) – Michael B. Friedman – **Behavioral Health News** – Pain and the nation’s Opioid Epidemic: An interview with Luana Colloca, MD, PhD, MS  
[http://www.mhnews.org/back\\_issues/BHN-Winter2020.pdf](http://www.mhnews.org/back_issues/BHN-Winter2020.pdf)
94. 2020 (Jan 23, 2020) – Interview with Sheilah Kast for **WYPR Radio** during the On the Record show. Also interviewed for this episode was Yudhijit Bhattacharjee who talked about his writing of the *National Geographic’s* piece - <https://www.wypr.org/post/your-brain-pain>
95. 2020 (Jan 23, 2020) – Phil Parker – Mind-body connection **podcasts**  
<https://podcasts.apple.com/gb/podcast/mind-body-connection-with-dr-phil-parker/id1493527932>
96. 2020 (Jan 29, 2020) – Laura Lee - Mpower day Highlights Strategic Partnership Success. **University of Maryland News** <https://www.umaryland.edu/news/archived-news/january-2020/newspressreleaseshottopics/mpower-day-showcases-power-of-collaboration.php>
97. 2020 (Feb 4, 2020) – **Luana Colloca** and Michael B. Friedman – **MEDPAGETODAY** - Make Pain Management 'Precision' Medicine - Change is essential to end the opioid crisis  
<https://www.medpagetoday.com/painmanagement/painmanagement/84667?trw=no>
98. 2020 (April 14, 2020) - Ashley Mateo - **Runner's world** - Recover Better by Reinventing the Rest Day - Forcing yourself to rest and embracing recovery tools can have a big impact on your performance. <https://www.runnersworld.com/health-injuries/a30196988/running-recovery/>
99. 2020 (May 14, 2020) – Walt Thiessen – **LOA Today** – Placebo, nocebo and COVID-19 link to the mp3 file of the actual podcast episode itself:  
<https://www.loatoday.net/podlove/file/3477/s/download/c/select-show/2020/loa1219-placebo-nocebo-and-covid-19-with-dr-luana-colloca.mp3>  
link to the YouTube video: <https://youtu.be/XXz6qURGqRg>
100. 2020 (Sept 23, 2020) - Jessica Hamzelou - **New Scientist** - Blood test could reveal if you will experience the placebo effect. <https://www.newscientist.com/article/2255163-blood-test-could-reveal-if-you-will-experience-the-placebo-effect/>
101. 2020 (Oct 20, 2020) - Claudia Lopez Lloreda – **Wired** (Science) Can Placebos Work—Even When Patients Know They’re Fake? <https://www.wired.com/story/can-placebos-work-even-when-patients-know-theyre-fake/>
102. 2020 (Oct 21, 2020) – Hannah C. – **The Science Times** – Why do placebos work?  
<https://www.sciencetimes.com/articles/27815/20201021/why-placebos-work.htm>
103. 2021 (Feb 10, 2021) – Isobel Whitcomb – **Slate** - My Doctor Told Me My Pain Was All in My Head. It Ended Up Saving Me.  
<https://slate.com/technology/2021/02/chronic-pain-neuroscience-education-running-joy.amp>
104. 2021 (March 21, 2021) – **The Helix Center, NYC**. Panacea or poison: Placebo and nocebo in modern medicine <https://www.helixcenter.org/roundtables/panacea-or-poison-placebos-and-nocebos-in-modern-medicine/>.

- <https://www.youtube.com/watch?v=qcM7Ux97S2Q>
105. 2021 (April 14, 2021) – **Alipress** –A cuore aperto, I vaccini. Interview [alipress.it](http://alipress.it)  
<https://www.facebook.com/alipressitalia/videos/a-cuore-aperto-i-vaccini/378569629921946/>
  106. 2021 (May 5, 2021) – Brian Resnick – **Vox** - The weird science of the placebo effect keeps getting more interesting. <https://www.vox.com/unexplainable/22405880/placebo-mystery-open-label-pain-medicine>  
<https://open.spotify.com/episode/3D55ZKHS9lInpUdPo4lCMx?si=a4f07d5e91d74411&nd=1>
  107. 2021 (May 7, 2021) - Jackie Rocheleau – **Science News** - Mild zaps to the brain can boost a pain-relieving placebo effect.  
<https://www.sciencenews.org/article/brain-mild-zaps-boost-placebo-effect-pain-relief-neuroscience>
  108. 2021 (June 17, 2021) – Tim Norton – **Hard Conversations** - What a Harvard Placebos Expert has to say about Improving Erections (with podcast)  
<https://hardconversations.libsyn.com/website/ep-26-what-a-harvard-placebos-expert-has-to-say-about-improving-erections>
  109. 2021 (**June 29, 2021**) - Mélanie Morin – **International Continence Society** – Canada.  
[ICS | Chronic pelvic pain mechanism, neuroscience education and physiologic in clinical practice](https://www.ics-international.org/chronic-pelvic-pain-mechanism-neuroscience-education-and-physiologic-in-clinical-practice)
  110. 2021 (July 14) – Mary Phelan – **UMB News** - Unlocking the Power of the Mind  
<https://www.umaryland.edu/news/archived-news/july-2021/unlocking-the-power-of-the-mind.php>
  111. 2021 (October 14) - Beryl Lieff Benderly – **neo.life** - THE PROMISE OF PILLS THAT DO NOTHING <https://neo.life/2021/10/the-promise-of-pills-that-do-nothing/>
  112. 2021 (Dec 15, 2021) - Mary Therese Phelan and Becky Ceraul – University of Maryland News. <https://www.umaryland.edu/news/archived-news/december-2021/mpowering-collaboration-and-innovation-.php>
  113. 2021 (December 22, 2021) – David M Hale – **espn** - Is momentum real? An in-depth investigation of sports' most overused term - [https://www.espn.com/college-football/story/\\_/id/32910904/is-momentum-real-depth-investigation-sports-most-overused-term](https://www.espn.com/college-football/story/_/id/32910904/is-momentum-real-depth-investigation-sports-most-overused-term)
  114. 2022 (Jan 18, 2021) – Laura Lee – **UMB News** - University of Maryland Ranks in Top 10 in Research Funds - <https://www.umaryland.edu/news/archived-news/january-2022/university-of-maryland-among-top-10-research-institutions.php>
  115. 2022 (Jan 1-March 18, 2022) – Yudhijit Bhattacharjee – **National Geographic**. A life of sensations. Special Issue on The Future of Medicine. Pages 54-55 and 63-62.
  116. Feb 15, 2022. Michael Robbins - **Bottom Line Personal** - Head Games that Sabotage your Health. Page 3.
  117. April 1<sup>st</sup>, 2022 – Yudhijit Bhattacharjee - **National Geographic** – **Newsletters** – HOW THINKING ABOUT PAIN MAY CHANGE IT.  
<https://email.nationalgeographic.com/H/2/v60000017fe67304c9a3f5386e966a31b0/21a742a0-37d8-405b-bde5-c7fc0193ec5b/HTML>
  118. May 11, 2022 – Patricia Fanning - **University of Maryland Catalyst** - Pain Relief: CACPR Research Includes Opioid Crisis and COVID-19  
<https://catalystmag.umaryland.edu/pain-relief-cacpr-research-includes-opioid-crisis-and-covid-19/>
  119. Dec 22, 2022 - Joanna GAŚKA Pracują na Nobla - **Polish Radio** - Wirtualna rzeczywistość zwiększa tolerancję na ból ostry i przewlekły, poprawia efekty leczenia - dowodzą badania zespołu pod kierunkiem prof. Luany Colloicy

<https://www.radiokrakow.pl/audycje/wirtualna-rzeczywistosc-zwieksza-tolerancje-na-bol-ostry-i-przewlekly-poprawia-tez-efekty-leczenia-dowodza-badania-zespolu-prof-luany-collocy>

120. Feb 1, 2023 – Li Wenhan – Voice of Hope. 安慰劑的療效竟能勝過藥物（希望之聲合成） 安慰劑的療效竟能勝過藥物？ 李文涵 安慰劑意識身體  
<https://www.soundofhope.org/post/691428?lang=b5>
121. March 10, 2023 - Lincoln M. Tracy, PhD – PAIN RESEARCH FORUM - Open-Label Placebo Analgesia Blocked by Naloxone -<https://www.iasp-pain.org/publications/pain-research-forum/prf-news/open-label-placebo-analgesia-blocked-by-naloxone/>
122. April 12, 2023. BIDMC News - Jacqueline Mitchell - Open-Label Placebo Improved Outcomes for People in Treatment for Opioid Use Disorder. <https://www.bidmc.org/about-bidmc/news/2023/04/placebo-improved-outcomes-for-people-in-treatment-for-opioid-use-disorder>
123. April 17, 2023 - JACQUELINE MITCHELL | Beth Israel Deaconess - Open-Label Placebo Improved Outcomes in Opioid Use Disorder Study showed placebo increased retention, improved sleep even when participants knew they were taking placebo  
<https://hms.harvard.edu/news/open-label-placebo-improved-outcomes-opioid-use-disorder>
124. Sep 15, 2023 - Stacey Colino – PREVENTION. What Is the Nocebo Effect? What to Know and How to Prevent It, According to Experts. Plus, simple ways to stop it in its tracks.  
<https://www.prevention.com/health/a45103628/nocebo-effect-negative-thinking/>
125. Oct 8, 2023 – Michele Catanzaro - Por qué confiar en El Periódico Barcelona 08 de octubre del 2023. - ¿Por qué está aumentando el efecto placebo?  
<https://www.elperiodico.com/es/sociedad/20231008/aumentando-efecto-placebo-92939601>
126. Nov 3, 2023 - Leonard H. Calabrese, DO – healio rheumatology Welcome back, ACR Convergence: Thoughts from the field.  
<https://www.healio.com/news/rheumatology/20231102/welcome-back-acr-convergence-thoughts-from-the-field>
127. November 13, 2023 Piper Weiss - **Yahoo Life** - The placebo effect is real. Here's how sugar pills can help relieve pain and improve IBS.  
<https://www.yahoo.com/lifestyle/placebo-effect-real-heres-sugar-140029075.html>
128. Jan 5, 2024. - Claire Murphy- The Elm Stories. UMMC/UMB Innovation Challenge Award Recipients Announced. <https://elm.umaryland.edu/elm-stories/2023/UMMCUMB-Innovation-Challenge-Award-Recipients-Announced.php>
129. Jan 31, 2024 – Giordana Segneri - The Elm. [PBO Center Lecture Posits That ‘Placebos Can Improve Almost Any Condition You Can Name’ - The Elm \(umaryland.edu\)](https://elm.umaryland.edu/pbo-center-lecture-posit-that-placebos-can-improve-almost-any-condition-you-can-name/)
130. Feb 6, 2024 – David Robson – The New Scientist - The neuroscientist harnessing the placebo effect to help soothe pain.  
<https://www.newscientist.com/article/mg26134770-900-the-neuroscientist-harnessing-the-placebo-effect-to-help-soothe-pain/>  
**Related:** <https://medriva.com/pain-management/harnessing-the-power-of-the-placebo-effect-revolutionizing-pain-management/>  
<https://mpower.maryland.edu/the-neuroscientist-harnessing-the-placebo-effect-to-help-soothe-pain/>
131. Feb 27, 2024 - Rob Volansky - *Healio Rheumatology* - Exploring the power of their mind data may offer clues to harnessing the placebo effect.  
<https://www.healio.com/news/rheumatology/20240220/exploring-the-power-of-their-mind-data-may-offer-clues-to-harnessing-the-placebo-effect>

132. April 8, 2024 – Eric Vance – New York Times – I Hate Running. I Trick My Brain Into Doing It Anyway - [https://www.nytimes.com/2024/04/08/well/move/how-to-like-running.html?ugrp=c&unlocked\\_article\\_code=1.jE0.QmPy.d1NoUu2FAVJs&smid=url-share](https://www.nytimes.com/2024/04/08/well/move/how-to-like-running.html?ugrp=c&unlocked_article_code=1.jE0.QmPy.d1NoUu2FAVJs&smid=url-share)
133. April 19, 2024 - [Ashley McDowell](#) - wmar2news – TV appearance <https://www.wmar2news.com/local/tricking-the-brain-when-it-comes-to-pain>
134. June 7, 2024 – Giuliano Aluffi – La Repubblica - Quanda basta una parola a farci ammalare
135. July 24, 2024 – Grace Wade – New Scientist - We may finally know how the placebo effect relieves pain <https://www.newscientist.com/article/2440886-we-may-finally-know-how-the-placebo-effect-relieves-pain/>
136. July 24, 2024 - Angie Voyles Askham – The Transmitter. Cerebellar circuit may convert expected pain relief into real thing <https://www.thetransmitter.org/pain/cerebellar-circuit-may-convert-expected-pain-relief-into-real-thing/>
137. September 5, 2024 – UMB Office of Communications and Public Affairs - <https://elm.umaryland.edu/elm-stories/2024/2024-Founders-Week-Award-Winners.php>
138. Sept 18, 2024 – Jen Badie - Founders Week 2024: Researcher of the Year Luana Colloca, MD, PhD, MS - <https://elm.umaryland.edu/elm-stories/2024/Founders-Week-2024-Researcher-of-the-Year-Luana-Colloca-MD-PhD-MS.php>
139. Sept 24, 2024 - Fred Schwaller - A Newly Discovered Neural Circuit for Placebo Pain Relief <https://migrainecollaborative.org/a-newly-discovered-neural-circuit-for-placebo-pain-relief> For Migraine Science Collaborative. <https://migrainecollaborative.org/a-newly-discovered-neural-circuit-for-placebo-pain-relief>
140. Oct 5, 2024 – Giuseppe Curra’ – Il Vibonese - Medicina, la vibonese Luana Colloca eccellenza mondiale nel campo dell’effetto placebo. [https://www.ilvibonese.it/societa/478644-medicina-luana-colloca-eccellenza-effetto-placebo-paravati/?utm\\_medium=Social&utm\\_source=Facebook&fbclid=IwY2xjawF2GeRleHRuA2FlbQlxMQABHQspy\\_BiObEL33Vx498HKn7S7vRPAnGyjFsd3Tu0fK23I8LmHuCxznNmBA\\_aem\\_Sc38WJ1rkCkAGIWA46RSYA#Echobox=1728110455](https://www.ilvibonese.it/societa/478644-medicina-luana-colloca-eccellenza-effetto-placebo-paravati/?utm_medium=Social&utm_source=Facebook&fbclid=IwY2xjawF2GeRleHRuA2FlbQlxMQABHQspy_BiObEL33Vx498HKn7S7vRPAnGyjFsd3Tu0fK23I8LmHuCxznNmBA_aem_Sc38WJ1rkCkAGIWA46RSYA#Echobox=1728110455)
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143. Oct 9 – Lou Cortina and Jen Badie – The Elm - [https://elm.umaryland.edu/elm-stories/2024/Founders-Week-2024-Award-Winners-Talk-About-UMBs-Core-Values.php?utm\\_source=The%20Elm%20Weekly%2C%20Week%20of%20October%2014%2C%202024](https://elm.umaryland.edu/elm-stories/2024/Founders-Week-2024-Award-Winners-Talk-About-UMBs-Core-Values.php?utm_source=The%20Elm%20Weekly%2C%20Week%20of%20October%2014%2C%202024)
144. Nov 4, 2024 - [Rob Volansky](#) – the Healio <https://www.healio.com/news/rheumatology/20241104/hooked-on-rheum-with-luana-colloca-md-phd-ms>
145. Nov 21, 2024 – Articles related to the Giovan Giacomo Award [https://www.ilgazzettino.it/napoli/cronaca/la\\_prof\\_colloca\\_insignita\\_del\\_premio\\_giovan\\_giacomo\\_giordano\\_niaf-8492083.html](https://www.ilgazzettino.it/napoli/cronaca/la_prof_colloca_insignita_del_premio_giovan_giacomo_giordano_niaf-8492083.html)
146. Jan 8, 2025. - Leilani Uttenreither - UMB Celebrates Its Fourth Cohort of the Faculty Leadership Development Program. <https://elm.umaryland.edu/elm-stories/2024/UMB-Celebrates-Its-Fourth-Cohort-of-the-Faculty-Leadership-Development-Program.php>

147. March 8, 2025 - Marlene Cimon - The placebo effect can be good medicine, for pain and other problems. <https://www.washingtonpost.com/wellness/2025/03/08/placebo-effect-pain-clinical-trial/>
148. March 13, 2025 - Katie V. Jones - Catholic Review. Baltimore doctor leads international effort on easing pain. <https://catholicreview.org/baltimore-doctor-leads-international-effort-on-easing-pain/>

## PODCASTS

1. 2020 (Jan 23, 2020) Phil Parker – **Mind-body connection**  
<https://podcasts.apple.com/gb/podcast/mind-body-connection-with-dr-phil-parker/id1493527932>
2. 2020 (May 14, 2020) – Walt Thiessen – **LOA Today** – Placebo, nocebo and COVID-19  
link to the mp3 file of the actual podcast episode itself:  
<https://www.loatoday.net/podlove/file/3477/s/download/c/select-show/2020/loa1219-placebo-nocebo-and-covid-19-with-dr-luana-colloca.mp3>  
Link to the YouTube video: <https://youtu.be/XXz6qURGqRg>
3. March 20, 2021. **The Helix Center, NYC**. - Panacea or Poison: Placebos and Nocebos in Modern Medicine - <https://www.youtube.com/watch?v=qcM7Ux97S2Q>
4. May 5, 2021 - Vox: – Brian Resnick – **Vox**  
<https://open.spotify.com/episode/3D55ZKHS9lInpUdPo4lCMx?si=a4f07d5e91d74411&nd=1>
5. June 17, 2021 – Tim Norton – **Hard Conversations** - What a Harvard Placebos Expert has to say about Improving Erections  
<https://podcasts.apple.com/ie/podcast/hardconversations/id1395956643?i=1000525596700>
6. June 29, 2021 – Melanie Morin – **International Continence Society** – Canada  
<https://www.ics.org/podcast/3>  
[ICS | Chronic pelvic pain mechanism, neuroscience education and physiologic in clinical practice](https://www.ics.org/podcast/3)
7. October, 2021 – Bradley Block – Ethics of Recommending Placebo with Luana Colloca, MD, PhD <https://physiciansguidetodoctoring.com/>
8. Feb 3, 2022 – 9' to Thrive with Navin – Navin Hettiarachchi.  
<https://podcasts.apple.com/us/podcast/9-to-thrive-with-navin/id1522580218?i=1000549874059>
9. Dec 19, 2022. Samuel Nowak from the instytut psychologii uj, Poland. W POPP #10 rozmawiamy z prof. Luaną Collocą o użyciu VR (Virtual Reality) jako leku na ból ---  
<https://youtu.be/1B8-0Q5yApQ>
10. 2024 Podcast for Really? No, Really? With Jason Alexander and Peter Tilden - The shocking power of the placebo effect. <https://www.iheart.com/podcast/1119-really-no-really->

[107027693/episode/the-shocking-power-of-the-placebo-180398971/?cmp=web\\_share&embed=true](https://www.youtube.com/watch?v=107027693/episode/the-shocking-power-of-the-placebo-180398971/?cmp=web_share&embed=true)

11. 2024. Sensory Approach to Manual Therapy Harnessing Placebos for Enhanced Recovery. With Troy LeVigne. <https://sensoryapproach.buzzsprout.com/1671958/15263991-harnessing-placebos-for-enhanced-recovery>
12. 2024. "Your Ageless Musical Brain" Podcast hosted by Lucy E. Blanco <https://youtu.be/idALu-fDmCk?si=KiOX0gVfmtnhsEY5>
13. 2024. Monica Panetto of "[Il Bo Live](https://ilbolive.unipd.it/)", online journal of the Università di Padova. <https://ilbolive.unipd.it/it/news/mondo-salute/salute-effetto-placebo-come-sfruttare-nostra>
14. 2024. Nov 6, 2024. Placebos work. Why? <https://podcasts.apple.com/us/podcast/placebos-work-why/id1554578197?i=1000675879355>
15. 2025. Jay Govindji. Podcast – The Power of Belief: Exploring the Psychological Mechanisms of the Placebo Effect. [Ep. 12 - The Power of Belief: Exploring the Psychological Mechanisms of the Placebo Effect w/ Dr. Luana Colloca • The Science Behind Mysteries](#)

#### Radio interviews:

1. 2017 (Nov 11) - **ABC News (Australian Broadcasting Corporation)** - Health Report - presented by [Nocebo effect could be making you feel sick](#) - [www.abc.net.au/radionational/programs/...effect.../9167506](http://www.abc.net.au/radionational/programs/...effect.../9167506)
2. 2019 (June 15) Adam Goldstein and Cristy Page – **YOUR HEALTH®Radio** – UNC Family Medicine's weekly health show. <https://yourhealthradio.org/2019/06/14/the-real-science-behind-tricks-of-the-mind/>
3. 2020 (Jan 23, 2020) – Interview with Sheilah Kast for **WYPR Radio** during the On the Record show. Also interviewed for this episode was Yudhijit Bhattacharjee who talked about his writing of the *National Geographic's* [piece](https://www.wypr.org/post/your-brain-pain) - <https://www.wypr.org/post/your-brain-pain>
4. Dec 22, 2022 - Joanna GAŚKA Pracują na Nobla - **Polish Radio** - Wirtualna rzeczywistość zwiększa tolerancję na ból ostry i przewlekły, poprawia efekty leczenia - dowodzą badania zespołu pod kierunkiem prof. Luany Colloicy <https://www.radiokrakow.pl/audycje/wirtualna-rzeczywistosc-zwieksza-tolerancje-na-bol-ostry-i-przewlekly-poprawia-tez-efekty-leczenia-dowodza-badania-zespolu-prof-luany-colloicy>
5. Oct 4, 2024 – Doctor Radio Interview - **SiriusXM** – Dr. Erich Anderer <https://drive.google.com/file/d/1-D9Ld5OnTgPV6X49mjzFJwXACxndOidZ/view?ts=67041b78&pli=1>

**TedxTalk**

**Are placebos the solution? Tackling the opioid epidemic in the next few decades.** TEDx talk University of Maryland, Baltimore, Nov 9, 2018 (12 min)

<https://www.youtube.com/watch?v=XPtKdtF05s8>

This is to certify that my curriculum vitae is a current and accurate statement of my professional record.

Signature and Date:



\_\_\_\_\_ Baltimore, August 27, 2025

Printed Name: Luana Colloca