University of California Multi-Campus Symposium on

Music in relation to

Brain Science, Medicine, & Education

Thursday October 1st – Saturday October 3rd
Arnold Schoenberg Theatre, UCLA Herb Alpert School of Music
Popper Theatre, UCLA Herb Alpert School of Music
445 Charles E Young Drive East, Los Angeles, CA

under the direction of
Mark Tramo MD PhD

&

University of California Music Experience Research Community Initiative (UC MERCI)

UC Faculty

UC Davis
Petr Janata PhD

UC Merced
Ramesh Balasubramaniam PhD

UC San Diego
Sarah Creel PhD
John Iversen PhD
Scott Makeig PhD

UC San Francisco
Julene Johnson PhD

UC Los Angeles
Mark Tramo MD PhD

Jeanne Bamberger PhD, UCB
Gerald Berke MD, UCLA
Greg Bryant PhD, UCLA
Ellen Carpenter PhD, UCLA
Tim Cooley PhD, UCSB
Robert Fink PhD, UCLA
Nina Eidsheim PhD, UCLA
Tim Gentner PhD, UCSD
Peter Krapp PhD, UCI
Henry Spiller PhD, UCD
Ruth Hellier-Tinoco PhD, UCSB
Gert Lanckriet PhD, UCSD

Scott Grafton MD, UCSB
Frank Heuser PhD, UCLA
Marco Iacoboni MD PhD, UCL
Alexander Khalil PhD, UCSD
Paulo Chagas PhD, UCR
Roger Reynolds MM, UCSD
Luís Henao, UCLA
Oliver Jacobson BMT, UCSF
Joseph Klett PhD, UCSC
Martin Monti PhD, UCLA

Daniel Neuman PhD, UCLA
Neal Stulberg, UCLA
Raffi Tachdjian MD, UCLA
Carson Schütze, PhD, UCLA
Theresa Allison MD PhD, UCSF
Jayson Beaster-Jones PhD, UCM
Christian Mikutta MD, UCB
Roger Woods MD, UCLA
John Stern MD, UCLA
David Borgo PhD, UCSD
Gert Lanckriet PhD, UCSD
Steven Berman PhD, UCLA

In keeping with the goals of the UC President's Multi-Campus Research Initiatives, this inaugural UC MERCI Symposium convenes neuroscientists, health care professionals, educators, musicologists, and musicians from the University of California faculty whose research and educational activities focus on: 1) brain mechanisms mediating music perception and performance; 2) child cognitive development as it relates to music pedagogy and the effects of music experience on intellectual, emotional, and socio-cultural maturation; 3) applications of music to health maintenance and the treatment of pain, stress, disability, and isolation caused by diseases afflicting infant, child, adult, and elderly patient populations; 4) specialized health care for creative and performing artists; and 5) the development and application of innovative technologies and information resources for professionals and the general public.

The Symposium opens on Thursday October 1st with a public education event for a general audience with broad interests in music, including students and faculty in UC undergraduate, graduate, and professional schools. Distinguished guest lecturer Dr. Robert Freeman, former head of the Eastman School of Music, New England Conservatory of Music, and the College of Fine Arts at the University of Texas at Austin from 1972 to 2006, delivers a Keynote with insights from his book, The Crisis of Classical Music in America: Lessons from a Life in the Education of Musicians. The importance of interdisciplinary research and education to the real-world success of our nation's 10,000-plus U.S. music school graduates each year is addressed. Dr. Scott Makeig, UC MERCI Director, follows with an outline of the broad objectives and specific aims of the UC President's Planning Grant to develop a multi-campus, interdisciplinary initiative in music research and education. After a brief intermission, MERCI Co-Director Dr. Mark Tramo provides an overview of functional brain organization that explores candidate neural mechanisms mediating emotional responses to music and physiological processes that may underlie music's power to ameliorate pain and stress caused by physical and mental illness. Maestro Neal Stulberg then discusses and demonstrates some complexities in assessing how music's emotion and meaning are communicated by performers and received by listeners. The public event concludes with a series of performances by
graduate and undergraduate students from the UCLA Herb Alpert School of Music. A reception for UC faculty and students follows at the Music School.

Friday October 2nd is devoted to a series of workshops featuring “bullet talks” by over two dozen UC faculty. Workshops are organized into four clusters: 1) Music, Health, & Medicine; 2) Music, Mind, & Brain; 3) Music, Development, & Education; and 4) Music, Technology, & Informatics. Friday evening is the Faculty-Student Dinner and Poster Session at the UCLA Faculty Center across the street from the Music School.

Most of Saturday October 3rd is earmarked for Faculty-Student break-out sessions that bring researchers with overlapping interests together and kindle multi-campus research collaborations. The Symposium culminates with a discussion of potential research projects adumbrated in the breakout sessions and a timetable for achieving the goals of the present UC MERCI Planning Grant in anticipation of future applications for research funding and curriculum development.

Thursday OCTOBER 1, 2015

Schoenberg Theatre

5:00-7:00P
Registration

I. INTRODUCTION

7:00 – 7:10 PM
Welcome

Daniel Neuman, PhD
UCLA Dept of Ethnomusicology
Whilom Provost & Executive Vice Chancellor

7:10 – 8:00 PM
Keynote
The Crisis of Classical Music in America &
the Promise of Interdisciplinary Music
Education & Research

Robert Freeman, PhD
University of Texas, Austin
Whilom Dean & Regents Professor
College of Fine Arts

8:00 – 8:15 PM
The UC President’s MERCI Initiative:
Planning Grant Aims & Symposium Objectives

Scott Makeig, PhD
UCSD Inst for Neural Computation
UC MERCI, Director

8:15-8:30 PM
Intermission

8:30 – 9:00 PM
Functional Brain Organization in Relation
to Emotion & Meaning in Music

Mark Tramo, MD PhD
UCLA Depts of Neurology & Ethnomusicology
UC MERCI, Co-Director

9:00 – 9:50 PM
Measuring Music’s Impact:
A Performer’s Perspective

Neal Stulberg
UCLA Chair, Dept of Music
Director, Orchestral Studies

with performances by
Charles Tyler, cello
Farzad Amoozegar-Fassie, setar
Timothy Oh, alto saxophone
Hanmohamed Nashir Amin, double bass

Music School Green Room #1230

10:00 – 11:00 PM
UC Faculty & Student Reception
8:30-9:00 AM
Registration

II. MUSIC, HEALTH, & MEDICINE

9:00–9:06 AM
Introduction
Julene Johnson PhD
& Mark Tramo, MD PhD
UC MERCI, Co-Directors

9:06-9:18 AM
Music & Well-Being
Julene Johnson, PhD
UCSF Inst for Health & Aging

9:18-9:30 AM
Music, Well-Being & Collective Behavior: Interpersonal Synchrony
Alexander Khalil, PhD
UCSD Dept of Cognitive Science

9:30-9:42 AM
Music, Well-Being & Collective Behavior: Music Performance & Empathy
Jason Beaster-Jones, PhD
UCM Dept of History & World Culture

9:42-9:54 AM
Music, Well-Being & Collective Behavior: Singing
Nina Eidsheim, PhD
UCLA Dept of Musicology

9:54-10:06 AM
Refreshments

10:06-10:18 AM
Voice Production & Perception in Health & Illness
Gerald Berke, MD
UCLA, Dept of Otolaryngology
Voice Center for Medicine & the Arts, Director

10:18-10:30 AM
Healing, the Arts, & Complementary Medicine
Ping Ho, MA MPH
UCLA Arts & Healing, Director

10:30-10:42 AM
Designing Prospective, Randomized-Controlled Clinical Trials with Music as a Treatment Intervention
Mark Tramo, MD PhD
UCLA Depts of Neurology & Ethnomusicology

10:42-10:54 AM
Music for Autism and Other Chronic Childhood Illnesses
Raffi Tachdjian, MD MPH
UCLA Depts of Medicine & Pediatrics

10:54-11:06 AM
Refreshments
11:06–11:18 AM
Music for Pain & Anxiety in Children
Oliver Jacobson, BMT
UCSF Children's Hospital Music Therapy

11:18–11:30 AM
Music for Elders with Neurodegenerative Diseases
Teresa Allison, MD PhD
UCSF Dept of Geriatrics

11:30–11:50 AM
Q&A/Discussion
UC Faculty & Students

11:50–1:12 PM
Lunch

III. MUSIC, MIND, & BRAIN

1:12–1:18 PM
Introduction
John Iversen, PhD & Petr Janata, PhD
UC MERCI, Co-Directors

1:18–1:30 PM
Music, Empathy, & Mirror Neurons
Marco Iacoboni, MD PhD
UCLA Dept of Psychiatry & Biobehavioral Sciences

1:30–1:42 PM
Music, Emotion, & Cooperativity
Greg Bryant, PhD
UCLA Dept of Communication Studies

1:42–1:54 PM
Sensorimotor Synchronization & Rhythmic Coordination
Ramesh Balasubramaniam, PhD
UCM Dept of Cognitive & Information Sciences

1:54–2:06 PM
Cortical Electrophysiology of Rhythm Perception & Production
John Iversen, Ph.D.
UCSD Inst for Neural Computation

2:06–2:18 PM
Refreshments

2:18–2:30 PM
Electrophysiological, Hemodynamic, & Behavioral Correlates of Musicogenic Seizures
John Stern, MD
UCLA Dept of Neurology

2:30–2:42 PM
Electrophysiological Responses to Music in Human Auditory Cortex
Christian Mikutta, PhD
UCB Neuroscience Inst

2:42–2:54 PM
Electrophysiological Responses to Tones & Vocalizations in Macaque Auditory Cortex
Mark Tramo, MD PhD
UCLA Depts of Neurology & Ethnomusicology
2:54-3:06 PM  
Electrophysiological Correlates of Song Learning & Recognition in Starling Auditory Forebrain  
Tim Gentner, PhD  
UCSD Dept of Psychology

3:06-3:18 PM  
Music-Evoked Remembering in the Age of Big Data  
Petr Janata, PhD  
UCD Dept of Psychology

3:18-3:38 PM  
Q&A/Discussion  
UC Faculty & Students

3:38-3:50 PM  
Refreshments

IV. MUSIC, DEVELOPMENT, & EDUCATION

3:50-3:56 PM  
Introduction  
Sarah Creel, PhD  
UC MERCI, Co-Director

3:56-4:08 PM  
Development of the Musical Mind  
Jeanne Bamberger, PhD  
UCB Dept of Music

4:08-4:20 PM  
Specificity for Musical Memories During Development  
Sarah Creel, PhD  
UCSD Dept of Cognitive Science

4:20-4:32 PM  
Implicit Learning & Music Competence: Cultural & Biological Influences  
Henry Spiller, PhD  
UCD Dept of Music

4:32-4:44 PM  
Music Training, Cognitive Development, & Brain Development  
John Iversen, PhD  
UCSD Inst for Neural Computation

4:44-4:56 PM  
Refreshments

4:56-5:08 PM  
Genetics & Molecular Biology of Music Competence & Aptitude  
Ellen Carpenter, PhD  
UCLA Dept of Psychiatry & Biobehavioral Sciences

5:08-5:20 PM  
Skill Acquisition, Music Performance & Brain Plasticity  
Scott Grafton, MD  
UCSB Dept of Psychology

5:20-5:36 PM  
Skill Acquisition & Music Pedagogy  
Frank Heuser, PhD  
UCLA Dept of Music
5:36-5:48 PM
Music Performance & Symbolic Processing
Carson Schütze, PhD
UCLA Dept of Linguistics

5:48-6:00 PM
UC-México Arts & Culture Working Group
Ruth Hellier-Tinoco, PhD
UCSB Dept of Music

6:00-6:20 PM
Q&A/Discussion

Faculty Center, Sequoia Room

6:30-8:00 PM
UC Faculty-Student Dinner

8:00-9:00 PM
Poster Session

Music School Green Room #1230

9:00-10:00 PM
UC MERCI Board Meeting

Saturday OCTOBER 3, 2015

Popper Theatre

V. MUSIC, TECHNOLOGY, & INFORMATICS

9:00-9:06 AM
Introduction
Ramesh Balasubramaniam, PhD
UC MERCI Co-Director

9:06-9:18 AM
Music Technology, Design, & Implementation:
How We Create, Collaborate, & Consume
Gigi Johnson, EdD
UCLA Music Innovation Ctr, Director

9:18-9:30 AM
Search & Recommendation from Millions of
Songs & Videos
Gert Lankiert, PhD
UCSD Dept of Computer & Electrical Engineering

9:30-9:42 AM
Interdisciplinary Collaboration in Audiovisual &
Multimedia Composition & Performance
Paulo Chagas, PhD
UCR Dept of Music
9:42-9:54 AM

Roger Reynolds
UCSD Dept of Music

9:54 -10:14 AM
Q&A/Discussion

UC Faculty & Students

VI. WORKSHOPS

Popper Theatre

9:54 -10:06 AM
Workshop Organization & Goals

Scott Makeig, PhD
UC MERCI, Director

Classrooms 1354, 1402, 1420, 1421
Choral Room 1325

10:14-1:00 PM
Breakout Sessions

UC Faculty & Students

Courtyard

1:00-2:00 PM
Faculty/Student Lunch

Popper Theatre

2:00 – 3:00 PM
Session Summaries & Plans for 2016

Scott Makeig, PhD
UC MERCI, Director

3:00 PM
Adjourn