

Lasers and Brainwaves:

The Impact of Low-Level Laser Therapy on qEEG and sLORETA Imaging

Northwestern Health Sciences University

DATE: May 12-13, 2023

CE hours: 12

LOCATION: Ashville, NC

INSTRUCTORS: Michael S. Trayford DC, DACNB, BCN

Friday, May 12, 2023		12:00 pm – 8:55 pm
12:00 – 1:30 pm	<ul style="list-style-type: none">➤ Course outline summary/Flow of material➤ Basic neurophysiology as it relates to EEG electrophysiology/physics➤ Understanding normative/neurotypical EEG waveforms➤ Basic laser physiology/physics	Basic Sciences
1:45 – 2:45 pm	<ul style="list-style-type: none">➤ Basics of EEG variants/non-neurotypical waveforms/artifacts➤ Introduction to qEEG databases and quantitative EEG analysis➤ How lasers influence electrophysiological output of the cortex and the nervous system in general	
2:45 – 4:00	<ul style="list-style-type: none">➤ Basic understanding of abnormal brainwave patterns in TBI, learning and behavioral disorders, and cognitive impairment➤ Introduction to sLORETA imaging	Basic Sciences
4:30 – 5:45 pm	<ul style="list-style-type: none">➤ Lab testing to augment/enhance treatment outcomes in complex neurological cases➤ Using functional neurology, chiropractic care, nutrition, and LLLT for facilitating neurological recovery and improvement of impaired EEG patterns in TBI	Principles of Practice/Philosophy
5:45 – 6:30 pm	<ul style="list-style-type: none">➤ qEEG case studies (TBI)➤ Neurological rehabilitation techniques and applications➤ LLLT applications➤ Discussion	Physical therapy/Physiological Therapeutics
6:40 – 8:55 pm	<ul style="list-style-type: none">➤ qEEG case studies (learning and behavioral disorders/cognitive impairment)➤ Neurological rehabilitation techniques and applications➤ LLLT applications➤ Discussion	Physical Therapy/Physiological Therapeutics
Saturday, May 13, 2023		8:00 am – 12:15 pm
8:00 – 10:00 am	<ul style="list-style-type: none">➤ Live demonstration of raw EEG data acquisition, EEG artifacting, qEEG analysis, and real-time sLORETA imaging➤ Impact of LLLT on real-time EEG imaging	Physical Therapy/Physiological Therapeutics
10:15 – 12:15 pm	<ul style="list-style-type: none">➤ Discussion of live demonstration and continuation if needed➤ Condition specific applications of LLLT for impacting EEG/brainwave output, and overall neurological health➤ Hands-on Laser demonstration➤ Summary review of research, physiology, clinical applications	Physical Therapy/Physiological Therapeutics