# 2015 ISNR Annual Conference – October 15-18, 2015

Pre-conference Workshops - October 12-14, 2015

# 8-Hour Pre-Conference Workshop (PCW) & 3-Hour Conference Workshop Descriptions

## **Pre-Conference Workshop Descriptions**

Monday, October 12 - Tuesday, October 13, 2015 -- 8:00am - 5:30pm (Additional fees apply)

## PCW 1.1, 1.2 (2-DAY) LENS Foundation Training

Level: Basic

Daphne Waldo, RN

This 2-day workshop is a learning arena for the practitioner, which includes essential concepts, core paradigms, principles, and areas of applicability of the Low Energy Neurofeedback System (LENS) and how to integrate the concepts into the practitioner's practice. The workshop will offer hands-on training in the LENS in addition to a foundational knowledge in assessing the client, development of a treatment plan, using the concepts presented and how to reevaluate the effectiveness of the treatment plan.

# PCW 2.1, 2.2 (2-DAY) LENS Advanced Training

**Level:** Advanced Len Ochs, PhD

This 2-day Advanced LENS Training will begin with a review of fundamentals; treatment flow from evaluations to treatment and re-evaluations; understanding Maps and their significance; Advanced offset management; In-depth analysis of LENS Settings and how they relate to the concepts of Sensitivity, Reactivity, Incompletely resolved childhood problems, Advanced management of suppression and over stimulation with time spent on Suppression Maps; Clarification of differences between aberrant reactions, background medical problems, and releases of suppression/necessary transitional states.

## PCW 3.1, 3.2 (2-DAY) NeuroField PEMF: The Energetic Wave of the Future

Level: Basic

Candia Smith. DMH

Pulsed Electomagnetic Field (PEMF) therapy is emerging as a powerful modality in Neurofeedback practice. In this two day course clinicians will gain an understanding of the NeuroField system's ability to affect changes in our clients' EEG to targeted goals, such as changes in coherence, amplitude and network functioning. Case histories, lecture and reference materials will assist in demonstrating the ways NeuroField is used in conjunction to other forms of NeuroFeedback and as a standalone intervention.

Monday, October 12 – Wednesday, October 14, 2015 - 8:00am - 5:30pm (Additional fees apply)

**PCW 4.1, 4.2, 4.3 (3-DAY)** QEEG Didactic Board Certification Course

Level: Basic

Thomas Collura, PhD, David Cantor, PhD, Harry Kerasidis, MD

This workshop, which is uniquely taught by three QEEG diplomats with diverse backgrounds, provides not only an opportunity to fulfill the QEEG Certification Board requirements, but also provides a broad and up-to-date exposure to the current state of QEEG and neurofeedback. Attendees who are seeking QEEG Board certification, as well as those who have experience in QEEG and neurofeedback will find this a comprehensive and engaging workshop, that by definition will include essential material to ensure a solid grasp of current QEEG concepts and methods.

Tuesday, October 13 – Wednesday, October 14, 2015-8:00am - 5:30pm (Additional fees apply)

PCW 5.1, 5.2 (2-DAY) BCIA Heart Rate Variability Biofeedback Certificate of Completion Workshop

Level: Basic

Fred Shaffer, PhD, Don Moss, PhD

Attendees will complete BCIA's 15-hour didactic requirement for the HRV Biofeedback Certificate of Completion. Attendees will better understand the importance of heart rate variability (HRV), the processes that can increase and decrease it, and the correlates of low HRV. Attendees will gain practical knowledge about how to monitor breathing and HRV, recognize and control artifacts. Attendees will learn how to assess breathing and HRV, and compare measurements to healthy norms. Finally, they will learn HRV training protocols that combine resonance frequency breathing with emotional self-regulation.

Tuesday, October 13, 2015-8:00am - 5:30pm (Additional fees apply)

**PCW 6** Meditation & Peak Performance

Level: Basic

Nidamangala Srinivasan, MA

This workshop will help clinicians revoke, enhance and unleash the exponential, yet Innate Learning Capability in the brain through an empirically measuring it with QEEG. Along with more than 20 years of practice of different kinds of Meditation, what is brought to the table is many years of practical knowledge of teaching this to various audiences. The effort is to simply the process and look at critical areas that could lead failure in evoking healthier lifestyle and productive mental states.

PCW 7 Trauma Work and Neurofeedback: Theta Alpha Gamma (TAG) Synchrony Training

**Level:** Intermediate

Ted Chapin, PhD, Lori Russell- Chapin, PhD

Providing an innovative and alternative NFB training for trauma work will assist NFB clinicians to have additional treatment strategies for their clients. Helping clients' brains communicate regionally and globally and then consolidating their learning provides an added benefit for efficacy and generalizability to clients' real world living. These two channel TAG trainings assist clients to be able to often narrate their trauma or internally resolve trauma concerns.

Wednesday, October 14, 2015-8:00am - 5:30pm (Additional fees apply)

PCW 8 Neurofeedback Treatment Implementation (ISNRU)

Level: Basic

Mike Cohen, Glenn Weiner, PhD

This will be a practical workshop addressing the common issues that novices are experiencing in clinical practice. This would include (1) patient orientation and coaching in session (2) Thresholding and protocol decision making (3) Managing adverse reactions (4) Technician and home training issues. In addition, participants will be exposed to a model for doing Alpha/Theta training and the rationale and research behind it.

**PCW 9** Working with Raw EEG: Understanding the Raw EEG, Artifacts and Interpretation (ISNRU)

Level: Basic-Intermediate

David Cantor, PhD, Robert P Turner, MD, MSCR

This workshop will focus in the basics of EEG acquisition and qualitative review in order to provide a fundamental consideration for raw EEG that can be submitted for quantitative analyses. Special attention will be given to provide a basic understanding of abnormal paroxysmal events particularly in the pediatric population.

### **PCW 10**

Basic Neuroanatomy/Neurophysiology (ISNRU) Level: Basic-Intermediate

Rex Cannon, PhD

This workshop will provide an introduction to the central nervous system, its anatomy and neurophysiology. It will cover the brain and our current understanding of EEG, networks, neural plasticity, neural efficiency and associated mechanisms. The brain and its mechanisms will be reviewed with latest research findings. The workshop will cover orientation & directions; ventricles and CSF; neural Development and learning; forebrain – cerebral cortex, limbic system, basal ganglia, thalamus, hypothalamus; midbrain – tectum, tegmentum; hindbrain – cerebellum, pons, medulla oblongata; Spinal Cord & PNS as well as functional associations for cortical and subcortical structures. Neurophysiology, methods of measurement and interpretations of such data will also be covered including limitations of all procedures.

#### **PCW 11**

Introduction to the Practice of Neurofeedback Assessment leads to Appropriate Intervention **Level:** Basic

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Lynda Thompson, PhD & Michael Thompson, MD

The content covers, but is not restricted to, the requirements for BCIA Rubric III, Instrumentation & Electronics - 4 hours, and Rubric VI, Patient/Client Assessment - 4 hours. The one day time frame will only allow an introductory overview but the handout will provide more detail. Hands on demonstration is carried out as time permits and as participants' desire.

#### **PCW 12**

Introduction to the Clinical Q (Clinical Data Based QEEG) and Braindriving

**Level:** Basic Paul Swingle, PhD

Learn rapid and precise intake ClinicalQ assessment based on clinical data base. Thorough review of unconditioned stimuli in many modalities that can be used in braindriving protocols as well as for standalone applications. Participants will be able to immediately apply techniques learned in the workshop with any clinical EEG platform.

#### **PCW 13**

Clinical Application of QEEG-based Neurofeedback: Live Z-Scores, LORETA, Infra-Slow, and Micropower Transcranial Magnetic Stimulation

Level: Intermediate

Mark Smith, MSW, Penijean Gracefire, MA, Tom Collura, PhD

This workshop provides clinically relevant information relating to current methods that extend conventional neurofeedback with additional techniques. These techniques are supported by an existing as well as growing evidence base, as well as strong psychophysiological rationale. Attendees will gain information, including practical demonstrations, clinical outcomes, and current theoretical understanding of these Neuromodulation techniques. There will be opportunity for hands-on work, and attendees will be allowed to bring their own equipment to this workshop, and to work along with the instructional material.

## **PCW 14** (*CE and CME credit will not be offered for this session.*)

Building a Successful Neurofeedback Business

Level: Basic

Judith Ann Miller, PhD, Dallas Shepard

This workshop will help any neurofeedback provider to see the much broader picture of running a successful neurofeedback practice. It will not only help the practitioner identify problem areas in their practice but will give practical solutions to enhance their practice in 21 areas. In reality we are giving Neurofeedback to your practice so that it will run effectively and efficiently so that it will generate the results you want.

## **Conference Workshops Descriptions**

Thursday, October 15, 2015 - 3:15 - 6:30pm (Additional fees apply)

WS 1 BCIA Review Course

Level: Intermediate

Lynda Thompson, PhD & Michael Thompson, MD

This workshop is for those who intend to take the BCIA exam the course will provide a reasonable sample of the domain of knowledge needed to perform well. The BCIA Review workshop moves very rapidly. It is meant as a review for intermediate to advanced practitioners who may wish to take the accreditation examination at some point in the future and for others who wish to review their theoretical and practical knowledge in the field. It gives an ONLY AN OVERVIEW of some of the BASIC PUBLISHED fundamentals as outlined in the BCIA Blueprint of Knowledge.

WS 2 Neurofeedback and Psychotherapy Integration in the Treatment of Borderline Personality

Disorder: Theory and Practice

**Level:** Intermediate Sebern Fisher, MA

This workshop explores the integration of neurofeedback and psychotherapy in the treatment of complex affect regulation disorders now classified in the DSM as Axis II. These conditions are challenging for both patient and therapist and perhaps only possible to treat with neurofeedback that targets regulation of affect. This workshop will provide an overview of theory of developmental trauma and neurofeedback integration into therapeutic practice. It is intended for therapists entering the field of neurofeedback and for neurofeedback therapists struggling with these complex dynamics.

 $\boldsymbol{WS}\;\boldsymbol{3}$  Getting Started with Pulsed Magnetic Field (pEMF) Therapy

**Level:** Intermediate John Demos, MA

Pulsed Electro Magnetic Fields (pEMF) when coupled with neurofeedback interventions likely enhance treatment outcomes. The history and current medical use of pEMF strongly support the efficacy of this intervention. Peer reviewed articles are cited and quoted. However, in order to get started program selection and training and principles are needed. Potential contraindications and limitations to therapy must be understood and communicated to trainees. This workshop is a springboard for clinicians who are already familiar with neurofeedback practice guidelines.

WS 4 Learning Disabilities: Neuroanatomy, Neurophysiology and Neurofeedback (ISNRU)

**Level:** Intermediate Robert Coben, PhD

This workshop will provide information and a state of the art understanding of learning disabilities in their many forms. A neuropsychological typology of various learning disabilities including dyslexia, nonverbal LD, and others will be presented. Neuroscientific underpinnings of these will be discussed to appreciate their neurophysiological causes. Approaches to neurofeedback will also be presented and the research evidence supporting them.

**WS 5** Slow Cortical Potentials (ISNRU)

**Level:** Intermediate Sarah Wyckoff, PhD

Slow Cortical Potential (SCP) neurofeedback utilizes a standardized bi-directional event-related training protocol that is efficacious in the treatment of ADHD, epilepsy, and migraines. This workshop is designed for clinicians, researchers, and students who want a comprehensive overview of the scientific basis, treatment rationale, training procedures, technical requirements, therapeutic applications, and outcome research for this form of neurofeedback.

WS 6 Neurofeedback and QEEG 101 (ISNRU)

Level: Basic

Mike Cohen, Glenn Weiner, PhD

If you're fairly new to neurofeedback and qEEG, the ISNR conference can be overwhelming. There's so many concepts and details that no one stops to explain simply. That's our goal. We slow it down and give you a solid understanding of the basics. It will fill in the gaps and help you better understand other courses, presentations, papers and even discussions with vendors.

WS 7 Epilepsy, Seizures and Neurofeedback

**Level:** Basic Lauren Frey, MD

Epilepsy affects an estimated 2.2 million people in the United States alone and is the nation's fourth most common neurological disorder, after migraine, stroke, and Alzheimer's disease [7]. Seizures are caused by aberrant connections within the brain that result in hyperexcitable networks. Neurofeedback training can modify these hyperexcitable networks. Given the prevalence of seizures and epilepsy, ISNR meeting attendees can expect to have these patients in their practices and may benefit from an in-depth review of the literature to date.

**WS 8** The Role of sLORETA Assessment and Neurofeedback in Recovery from Relational Violence and Abuse

**Level:** Intermediate Penijean Gracefire, MA

Emerging research on the neuroscience of trauma identifies residual neurophysiological signatures which influence long-term emotional response patterns and cognitive development in individuals who have experienced relational violence or abuse. Real time sLORETA imaging generates unique insights for initial clinical assessments, while live sLORETA Z-scored feedback provides therapeutic intervention strategies which allow customized protocol designs reflecting the activity of deeper cortical structures with increased accuracy. Survivors of violence and abuse frequently struggle with environmental instability, limited economic resources, and reduced emotional resiliency, and this workshop offers clinicians techniques intended to expedite traditionally expected time frames for recovery and healing.

**WS 9** Neural Regulation using Electronically Modified Music and Therapeutic Movement as a Complement to Neurofeedback

Level: Intermediate

Joanne McIntyre, MS (Psych)

Neurofeedback practitioners are looking for complementary interventions that improve neural regulation. Skilled practitioners appreciate that it is often a combined approach of integrating interventions and theoretical applications from varying clinical fields that achieve the best results. Integrated Listening Systems is such a tool that can be utilized clinically in an individualized integrated manner with Neurofeedback. The participant will learn how iLs can be utilized with both pediatric and adult clients to support and enhance Neurofeedback outcomes.

Friday, October 16, 2015 - 3:15 - 6:30pm (Additional fees apply)

**WS 10** A Versatile Neurofeedback Software Featuring Unsupervised Artifact Correction, Normative z-scores and sLORETA Training

Level: Advanced

Marco Congedo, PhD, Louis Mayaud, PhD

This workshop will address several key points related to advanced neurofeedback training and good practice in neurofeedback. In this workshop we will address the relationship between target cognitive functions and neurofeedback data extraction techniques, where an important role is played by many variables such as the age range of the target population, the amplifier, the feature extraction process, etc. This knowledge is instrumental to good neurofeedback practice.

**WS 11** Effects of i-Technology/Digital Media on the Brain (EEG) and Behavior **Level:** Intermediate Mari Swingle, PhD

As consistent applications of i-tech become more and more of a societal norm, negative and excessive use is increasingly hard to differentiate from healthy or integrated usage. It is timely that clinicians become informed of methods and modalities that can aid them to determine if excessive usage of i-tech is affecting a client under their care.

**WS 12** QEEG Guided Neurofeedback for ADHD and ASD **Level:** Intermediate

Michael Linden, PhD

ADHD is the most common childhood psychological/psychiatric disorder and is often misdiagnosed and underdiagnosed. If the correct subtype (s) of ADHD are not understood, neurofeedback will be less successful. Autism has increased more than 1/100 children. The QEEG is becoming a valuable assessment technique to confirm the presence of Autism and Aspergers and develop treatment strategies for neurofeeback and other biological treatments.

WS 13 Sports Concussion: Assessment, Management and Neurofeedback (ISNRU)

Level: Basic-Intermediate

Anne Stevens, PhD

This workshop is offered for those interested in or currently working with concussed athletes. The attendee will learn information related to the pathophysiology, as well as, the EEG/QEEG and neuropsychological implications of concussion. Emerging scientific information related to diagnosis and treatment will be discussed. The workshop will conclude with case studies and a discussion of implications for clinical practice.

WS 14 Substance Abuse: Neuroanatomy, Neurophysiology and Neurofeedback (ISNRU)

Level: Basic-Intermediate

Rex Cannon, PhD

This workshop will cover the neuroanatomical and neurophysiological correlates of substance abuse and addictive disorders, as well as neurofeedback protocols known to produce positive results in the treatment of SUD. Primary brain areas and networks will be discussed including mesolimbic pathways and potential networks shown to be disrupted or compromised in SUD. There is growing interest in converging neurofeedback with conventional therapeutic models in order to improve the outcomes across treatment paradigms. Reward and associated pathways will be discussed and integrated into the discussion, as well as learning and self-regulatory mechanisms.

WS 16 PTSD and Infra-slow Fluctuation Training

Level: Basic

Mark Smith, LCSW

Infra-slow Fluctuation Neurofeedback is a form of brain training that produces rapid state changes within session. Clients who report high levels of anxiety before training often relate that the anxiety is significantly reduced or eliminated at termination of a thirty minute Infra-slow Neurofeedback session. The swift reduction of anxiety has positive effects on a range of behaviors but especially clients with PTSD. It is argued that this amelioration of symptoms is due to the training of the Infra-slow band, a frequency band associated in research with HPA axis and autonomic nervous system regulation.

WS 17 Clinical Application of LORETA Neurofeedback

Level: Intermediate

Andrea Reid Chung, MA, Lena Santhirasegaram, Michael Thompson, MD

This workshop will provide participants with an understanding of how LORETA neurofeedback training is integrated into a clinical practice. It will be beneficial for participants interested in adding LORETA neurofeedback to their practice to see how it is integrated with traditional neurofeedback and heart rate variability. Specific details about assessment, training and tracking outcomes will be discussed.

#### **WS 18**

Identifying The Oxidative Stress Cycle With qEEG and Reducing Impediments to Effective NFB **Level:** Intermediate Richard Soutar. PhD

Although the neurofeedback technologies continue to improve at a rapid pace the ability to change brain structure and function with resulting behavioral and symptom changes is frequently confounded by the effects of externalities such as individual metabolic limitations and dysregulated family systems. This workshop will provide practitioners with information and methods to assist them in identifying physiological problems that impede the NFB process. It will also provide guidelines for recognizing qEEG patterns that correlate with various physiological problems such as inflammation and nutritional deficits and consequently enhance their ability to determine effective protocols for training.

**CANCELED - WS 24** Neurological Dynamics: Health, Wellness and Disease (ISNRU)

Level: Basic

Robert P Turner, MD

Saturday, October 17, 2015 - 3:15 - 6:30pm (Additional fees apply)

WS 15 Anxiety Disorders: Neuroanatomy, Neurophysiology and Neurofeedback (ISNRU)

Level: Basic-Intermediate

Kirk Little, PhD

Almost one-third of us will, at some point in our lives, experience an Anxiety Disorder. And a full 75% of Americans report experiencing some symptoms of stress within the past month. But the vast majority of people report that they are inadequately managing chronic stress. Because anxiety, fear, and stress-related problems are so pervasive in our culture, and so inadequately addressed by our current health care system, in this workshop, we will summarize and review the brain regions and networks related to anxiety symptomatology. We will also review the most common psychological approaches to anxiety treatment, and will come to understand how neurofeedback can dramatically improve upon standard methods. It is our ultimate goal to better understand underlying mechanisms, both psychologically and physiologically, so that we may be able to learn how to develop more effective, personalized treatments.

WS 19 Understanding and Treating Developmental Trauma (ISNRU)

Level: Basic-Intermediate

Bessel van der Kolk, MD, Sebern Fisher, MA

Millions of children in the US grow up under conditions of abuse and deprivation. Research has shown that te cumulative effects of adverse childhood experiences constitute the largest public health issue in the US, and overall is more costly than cancer of heart disease. Our studies of over 20,000 children in the National Child Traumatic Stress Network has demonstrated that childhood abuse and neglect results primarily in the deficits in the areas of affect regulation, attention and concentration. Another body of research has shown how various forms of abuse and deprivation have specific effects on the brain areas responsible for affect regulation, filtering in relevant information and attention. Neurofeedback promises to be an extremely helpful intervention to reverse the damage that results of early abuse and neglect. This workshop will show both the basic data about the consequences of abuse and neglect on the development of mind and brain, and present our research on how neurofeedback can increase affect regulation, concentration and executive functioning.

WS 20 Effective Interventions Based on Neural Networks and Brodmann Areas

Level: Intermediate

Lynda Thompson, PhD & Michael Thompson, MD

The presenters hope to give the participants the kind of overview that will help the clinician gain a general understanding of how to relate areas that we can identify in our patients using the QEEG and LORETA analysis to the functions that we can influence using neurofeedback combined with heart rate variability training as tools for intervention. Neural Networks require that we understand how one function may be targeted while other functions are inhibited and this will be outlined. The approach presented at this workshop involves the practical application of functional neuroanatomy for neurofeedback providers.

**WS 21** Introduction to Brodmann/sLORETA: functions, symptoms for training and assessment **Level**: Intermediate John Demos, MA

The introduction of sLORETA 3D imaging software for assessment and training has opened up a new vista of research and clinical advancement for neurofeedback providers. Learning the basics of Brodmann with cortical and sub-cortical regions is the first step to success with this new technology. Additionally it is essential to have an accurate definition of brain networks in training applications.

WS 22 Protocol Basic

**Level:** Basic Mike Cohen

Many clinicians have purchased qEEG equipment - but don't know anything but qEEG driven protocols. Sometimes, they need basic protocols to deal with client issues. There's a vast amount of practical knowledge that can be shared with newer clinicians in the field, so they can choose to use it if needed.

#### **WS 23**

Headaches/Migraine: Conceptualization and Management (ISNRU) Level: Basic-Intermediate Jeff Carmen, PhD

**WS 25** Incorporating the Integration of Virtual Reality, HRV, and pEMF (Neurofield) Training into your **Clinical Practice** 

Level: Basic

Robert Reiner, PhD

Participants will learn the history of exposure training via virtual reality, and how it is strengthened by combining it with HRV pEMF training. Practical strategies will be demonstrated and the presentation will be "brought to life" by use of numerous videos. Finally, hands-on demonstrations of what it feels like to enter virtual reality will be made available to participants.

**WS 26** Integrative Psychiatry and the Treatment of ADHD

**Level:** Intermediate Scott Shannon, MD

It is crucial that all providers who treat individuals with ADHD and other psychiatric disorders understand the evidence base for a range of non-conventional treatment modalities. Likewise, practitioners should comprehend the efficacy and safety concerns with conventional psychiatric medications. Integrative Psychiatry offers a different perspective that embraces tools such as neurofeedback and natural supplements in the care of the whole person.

WS 27 Mindfulness vs Mindlessness: Let us Explore the Benefits

Level: Basic

Sayyed Mohsen Fatemi, PhD

The workshop presents an in- depth explanation of mindfulness and mindlessness. The participants will learn the distinction between mindlessness and mindfulness and their implications for interpersonal and intra personal communication, decision-making, problem solving, family and organizational conflicts, performance enhancement and creativity.