



**ANSA**

APPLIED NEUROSCIENCE  
SOCIETY OF AUSTRALASIA

12<sup>th</sup> Annual ANSA Conference & Workshops  
16 – 20 August 2018

***Brain, Mind & Consciousness:  
The Psychobiology of Neuromodulation***



Brisbane Convention & Exhibition Centre  
& Rydges South Bank, Brisbane

**Conference Handbook**

[www.appliedneuroscience.org.au](http://www.appliedneuroscience.org.au)

# Acknowledgements

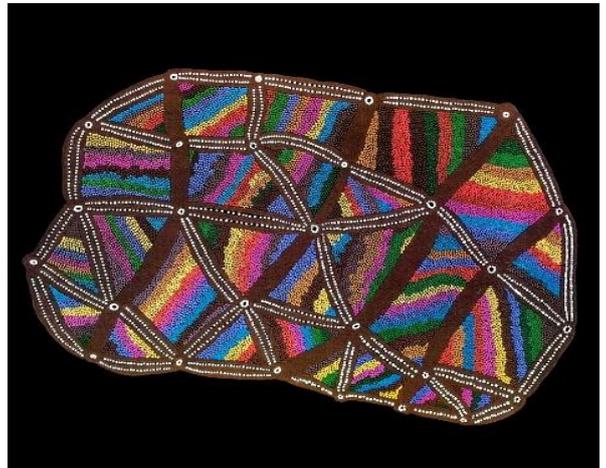
The Aboriginal and Torres Strait Islander flags are visual symbols of acknowledgement and respect. This is a way of showing awareness of and respect for the traditional Aboriginal or Torres Strait Islanders owners of the land and recognising the continuing relationship between Indigenous peoples and their Country.



Over recent years, organisations have been working with the *Council for Aboriginal Reconciliation* to develop action plans to “recognise that reconciliation between the Aboriginal and Torres Strait Islander peoples and other Australians must be achieved if community division, and injustice to Indigenous Australians were to be avoided”.

The Applied Neuroscience Society of Australasia respectfully acknowledges the traditional custodians of the land on which our organisation is incorporated, and pays respect to elders of Aboriginal and Torres Strait Islander peoples, past and present.

The artwork featured here is ‘**Brain Dreaming Tracks**’, a painting by **Sally Butler**, which represents the brain as a network of ‘song lines’ – brain circuits as journeys with mythical underpinnings. *Thank you, Leon Petchkovsky, for facilitating ANSA’s access to this artwork.*



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## Social Media Access to Sponsors & Delegates

We are very thankful to our sponsors and exhibitors for their valuable contribution to our program: [Neurotherapy Institute of Australia](#), [Bio-Medical Instruments](#), [OchsLabs Australasia](#), [Institute of Functional Neuroscience](#), [NovaTech EEG](#), [Brain, Mind & Memory Institute](#), [Medilink Australia](#), [neuroCare Group](#), [TALI Health & NeuroTech Solutions](#).

The Exhibitors will be available in Plaza #11 during refreshment breaks and lunches however you can also contact them with thanks to our new sponsor, **WHOVA**. All conference delegates may benefit from our social media platform keeping you up to date with ANSA conference matters.

*“Whova’s Event and Conference app helps event organizers take care of attendees and event logistics. With Whova, event organizers can create the most engaging and organized events ever by improving attendee engagement, increasing networking opportunities, and making event planning much easier. The software is loved by both organizers and attendees worldwide and won the Event Technology Award in 2016 & 2017.”* Download WHOVA at [https://whova.com/portal/acbma\\_201808](https://whova.com/portal/acbma_201808)

# Welcome to Brisbane, Queensland

Australia's third-largest city, Brisbane is the hub of Queensland culture, offering a peek at the past and a glimpse into the future. As the capital of the Sunshine State, Brisbane is blessed with idyllic subtropical weather all year round. With award-winning food and wine, a jam-packed events calendar, adventurous activities, scenic weekend getaways and plenty to explore all over the city, there's always something to do.



Right across the river from the CBD, South Bank is home to our Cultural Centre with the world-class galleries and entertainment – have you tried the Story Bridge climb? Visit the historic Windmill and Old Commissariat Store, built by convicts in 1828, or fast-forward to the present with a trip to the new Gallery of Modern Art – hosting the ANSA Conference Dinner on Saturday night. Cruise the Brisbane River on the City Cat; wander along the bougainvillea boardwalk through to South Bank's sandy beach; or fill the cuteness quota at Lone Pine Koala Sanctuary. [www.visitbrisbane.com.au](http://www.visitbrisbane.com.au)

Meet with friends in funky Fish Lane for eats and art, just minutes from the Convention Centre, or wander down to soak up the international flavours in our bohemian West End.



# Brisbane Convention & Exhibition Centre

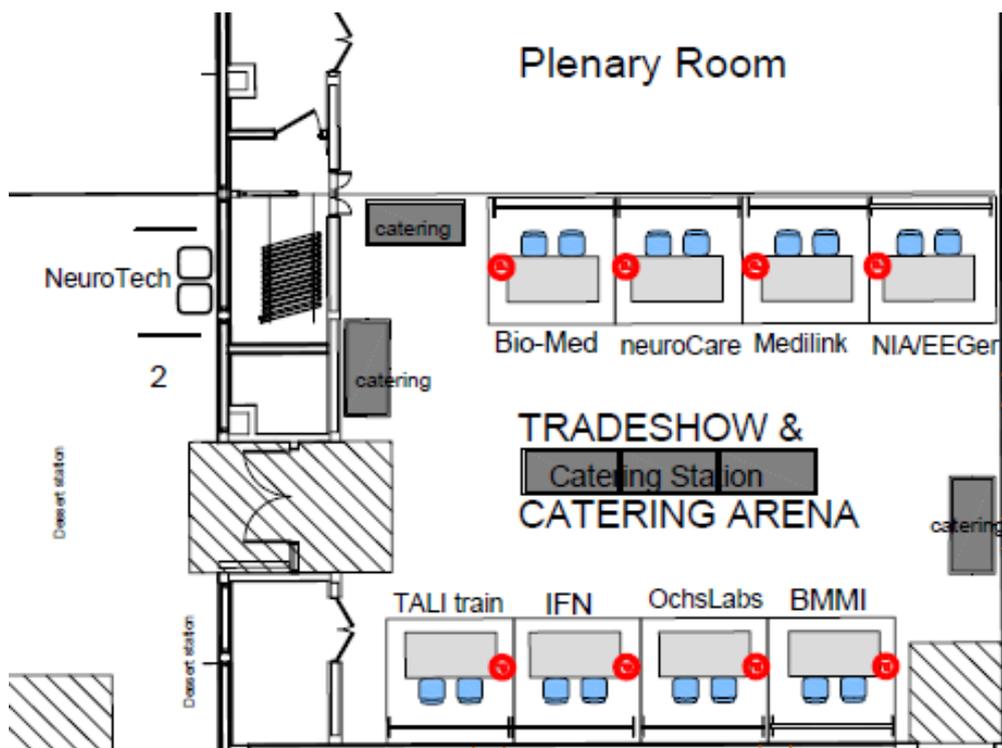
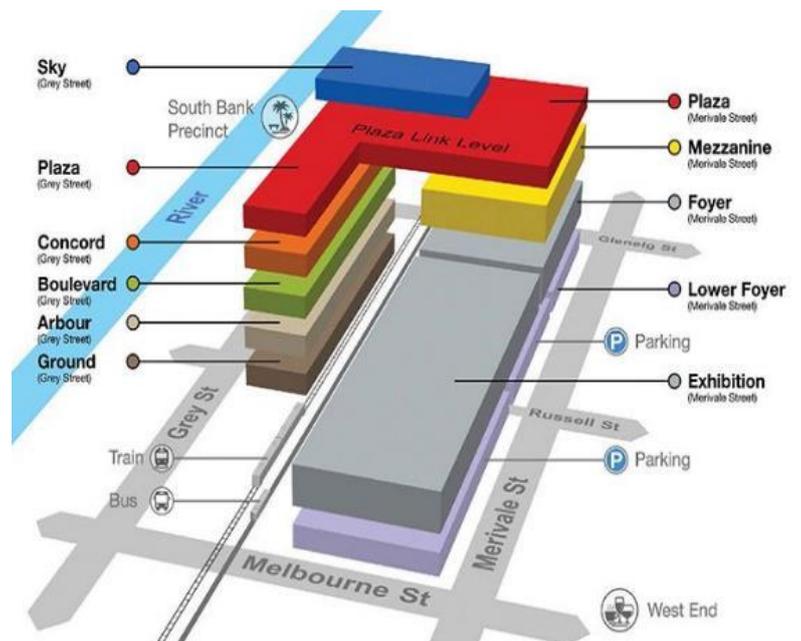


Navigate easily. Download **BCEC Live**, the official app of the Brisbane Convention & Exhibition Centre, located in South Bank, Brisbane.

Opened in 1995, BCEC is owned by South Bank Corporation on behalf of the Queensland Government and is proudly managed by AEG Ogden. BCEC is one of Australia's premier venues for events, exhibitions and conferences. The Brisbane Convention & Exhibition Centre has been awarded the Apex Award by the AIPC association for receiving the highest client rated service out of any convention centre worldwide.

The ANSA Conference is in Plaza #10/ #11.

The post-conference Monday workshop will be in the Arbour Room, Grey Street.



Please visit our sponsors in the tradeshow and catering arena located in Plaza #11. Exhibits will be available between 8am and 5pm on Saturday and Sunday.

You may also use the WHOVA app to contact sponsor representatives at any time to arrange product demonstrations or to ask questions about services available.

# President's Welcome to Conference

Welcome to long distance travellers. Welcome to near travellers! Welcome Members, Guests and all friends of ANSA including our first time ANSA Conference delegates.

In keeping with ANSA's commitment to reconciliation and respect, I acknowledge the Turrbul People as Traditional Owners of the land of Brisbane where we are gathered. They are amongst the oldest living culture on this planet. We honour them for their custodianship and we honour their wisdom. May we also walk this land with awareness and thereby deepen our connection to this wonderful and indeed sacred place. I pay respect to Elders past and present and to emerging community leaders. I also extend respect to Aboriginal and Torres Strait Islander people attending our program.

This gathering could be analogous to the story of the early Turrbul People. We come from near and far to hunt for wisdom and knowledge. We strengthen our tribe by sharing our stories, gathering new resources, skills, growing in confidence and connections! Here I have the honour of addressing my tribe in the flourishing field of neuro-modulation and more broadly, applied neuroscience.



I am Michelle Aniftos, President of the Applied Neuroscience Society of Australasia – our ANSA. As you'll read in the Conference Handbook, ANSA was formed following the amalgamation of AAAPB and the Australia Pacific Rim Chapter of the ISNR. The 25th of May this year marked the 21st birthday of our professional alliance, given that ANSA emerged and operates under the original incorporation number of the AAAPB which had its inaugural Conference at ANU Canberra on 25/05/97. With over 100 delegates attending this conference, now is the coming of age of applied neuroscience in Australia!!! Please make time to introduce yourself to others here. Let's promote inclusion and the growth of our shared interest in health and well-being.

I believe that all health practitioners need to develop and maintain relevant professional knowledge and skills. I have championed professional development and mentoring toward Certification in Neurofeedback and in QEEG Analysis and Interpretation. With improved training and ongoing professional development and peer supervision, we demonstrate our accountability as health professionals. We promote the integrity of our work and we protect the welfare of our clients. Through your attendance here and your ongoing commitment to our membership organization, you help to strengthen the potential of EEG-guided assessment and intervention to be recognised as a viable alternative, or at least an adjunct to conventional psycho-pharmaceutical approaches for treating neurocognitive disorders, and to enhance performance in healthy clients.

We must continue to promote the efficacy of neurofeedback and for recognition in the new National Guidelines for Treatment of ADHD. Not only must we promote the research evidence but ANSA has an important role to ensure that Certified Neurofeedback Practitioners are able to be endorsed for their professional status. We must also ensure neurofeedback is recognised by health insurers to support public access to this important intervention. Thank you for supporting these agendas by attending the 12<sup>th</sup> ANSA National Conference & Workshops. I also extend my thanks to the ANSA Executive Board for your work throughout the year and particularly during the busy conference period. Your efforts are very much appreciated. Thank you to everyone who is contributing to the conference program. I am so proud of the breadth and depth of content we are able to offer our delegates over these five days. ENJOY!!

**Michelle Aniftos**, ANSA President 2017 - 2019

# Conference Overview

N.B.: Our WHOVA social media APP will give you direct access to sponsors, speakers, delegates, program updates, abstracts and supplemental information.

## PRE-CONFERENCE WORKSHOP, Thursday 16 & Friday 17 August

**David Cantor, A Review of Neural Networks & Theoretical Applications**

*@ 12<sup>th</sup> Floor Terrace Room, Rydges Southbank*

## 5.30-7.30pm, Friday 17 August, CONFERENCE WELCOME RECEPTION

*@Soleil Pool Bar, Rydges Southbank*

**Saturday 18<sup>th</sup> August, Brisbane Convention & Exhibition Centre, Grey Street**

**Plaza #10: Plenary Room**

**Plaza #11: Trade Exhibits & Catering**

8:30 Welcome by Michelle Aniftos, *ANSA President*

### **KEYNOTE – David Cantor**

A Model for a Multidisciplinary Approach to Integrate Neurofeedback Protocols in the Treatment of Childhood Disorders

**10.15am Welcome to our Sponsors – a brief meet n' greet before first break**

*10.45 – 11.10am Refreshments, Plaza #11 with Sponsors & Exhibitors*

### **11.15am Simon Finnigan**

QEEG changes in stroke, ageing and cognitive decline

### **12noon Mark Ryan**

What's sleep got to do with it?

The role of sleep in mental and physical health, learning, brain plasticity and neuromodulation treatment outcomes

### **12.45pm Moshe Perl**

**Which Neurofeedback Methodology Shows Best Results: 50 years of research on neurofeedback**

*1.30pm - 2.25pm Lunch, Plaza #11 with Sponsors & Exhibitors*

**2pm BCIA-A AGM in Plaza #10**

**1.45 – 4.45pm: Exams for BCIA Neurofeedback & QBoard QEEG in Rydges Podium#5 Room**

### **2.30pm Len Ochs**

Evidence for LENS Neurotherapy

### **3.15pm Ulrich Lanius**

LENS and Neural Regulation: Brain and Body

*Silver Sponsor: OchsLabs*

### **4.15pm Michelle Aniftos, Chair of the BCIA-A**

Becoming Qualified: Your questions answered re training/certifying in QEEG or Neurofeedback)

**18:30 – 10pm: GOMA Gourmet BBQ Dinner & DJ (Peter Lacey)**

*Gallery of Modern Art, Stanley Place, South Brisbane*

**Sunday 19<sup>th</sup> August, Brisbane Convention & Exhibition Centre, Grey Street**

**Plaza #10: Plenary Room**

**Plaza #11: Trade Exhibits & Catering**

8.45am Welcome by Marth Mack, *Convener, APS Neurofeedback & Psychology Interest Group*

**9am Rivi Sela**

**qEEG as a Base to Neurofeedback Treatment: Is it reliable enough?**

*Silver Sponsor: Neurotherapy Institute of Australia*

**10am Leslie Sherlin**

**Optimising Performance in Development and Attention Disorders:  
Foundations & Progress in a Mixed-Methods, International, Multisite Feasibility Study**

*11am-11.25am Refreshments Break, Plaza #11 with  
Sponsors & Exhibitors*

**11.30 Aamir Malik**

**Factors Affecting Learning & Memory: Implications for Intervention**

*Silver Sponsor: TALI Health*

**12.30 Jacqueline Saad**

**Connecting the Dots in ADHD: insights from research in brain connectivity and network organisation in ADHD and its implications for diagnostic types and treatment**

*Silver Sponsor: NeuroTech Solutions*

*1.30-2.25pm Lunch, Plaza #11 with Sponsors & Exhibitors*

**1.45pm APS NFG IG AGM in Plaza #10**

**2.30pm Randy Beck**

**Abnormal Cortical Asymmetry as a Target For Neuromodulation in Neuropsychiatric Disorders**

*Silver Sponsor: Institute of Functional Neuroscience*

**4-5pm ANSA AGM – ALL Welcome**

**5pm Conference Close & Happy Hour (Plaza Terrace)!!**

**18:00 – 21:00: ANSA Executive & Guests' Dinner Meeting**

**POST-CONFERENCE WORKSHOP - Monday 20 August**

**Rivi Sela – Advanced EEG Analysis & Neurofeedback Protocol Design**

**@ Arbour Room, Brisbane Convention & Exhibition Centre**

**GOLD Sponsor: Brain, Mind & Memory Institute**

# With thanks to our Sponsors...

Come and visit all of our sponsors in the tradeshow arena co-located with our catering throughout the conference weekend in Plaza #11.

## Medilink

Medilink distributes a selection of neuro products that supports neuroscience research, education and therapy through:

- Neuro diagnostics
- Neuro modulation
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Applications include EEG, NEURO NAVIGATION, FINRS, TMS technology.

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# EEG Education & Research



# NIA

## Neurotherapy Institute of Australasia

**DR MOSHE PERL FOUNDED NIA TO HELP GROW THE FIELD OF NEUROFEEDBACK IN OUR REGION. WE TRAIN AND SUPPORT PRACTITIONERS ALL THROUGH THEIR PROFESSIONAL DEVELOPMENT, SHARING OVER 20 YEARS OF LEARNING AND EXPERIENCE IN THE FIELD OF EEG AND NEUROFEEDBACK.**

### Our Mindset



- We provide education, support and guidance to practitioners throughout their neurofeedback journey.
- We continually update our services, adding and adapting our offerings as the field develops.

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### Our Services



- Courses
  - Classroom courses from entry level neurofeedback to advanced EEG
  - Webinars and online group mentoring
  - BCIA and QEEGD accredited
- Neurofeedback equipment sales & support
  - Exclusive representatives of EEG Education and Research (EEGer)
- Professional mentoring (BCIA & QEEGD)
- QEEG, Minimap and TOVA interpretations
- Online forum for community discussions on neurofeedback and EEG

# Brain Mind & Memory Institute



**Brain Mind &  
Memory Institute**

*Advanced Brain Diagnostics & Neurotherapy Solutions*

[www.braininstitute.com.au](http://www.braininstitute.com.au)  
[www.braindiagnostics.com.au](http://www.braindiagnostics.com.au)

**Brain Mind & Memory Institute (BMMI)** is a private foundation established to promote the new era of personalised medicine through application of neuroscience-based methods in clinical practice of mental health. Our focus is on EEG based neuromarkers – precise measurements of brain function and cognition, including QEEG and Event Related Potentials allowing for more specific and sensitive personalised interventions.

**BMMI is an exclusive distributor of Mitsar EEG systems in Australasia.** Mitsar Medical amplifiers are among the most popular devices for EEG acquisition among QEEG experts, especially its unique software WinEEG, which was developed at Human Brain Institute in St Petersburg Russia. The system allows the user to record high quality EEG and Event related Potentials - **ERPs**. We also distribute **HBIMed brain normative database**, which is unique as the only database that includes norms for event-related potentials.

Become a member of [www.braininstitute.com.au](http://www.braininstitute.com.au) to gain access to masterclasses and workshops, comprehensive advice and support, reporting services and to receive the latest news from the field.

**Our on-line store:** [www.braindiagnostics.com.au](http://www.braindiagnostics.com.au) is in development and already becoming popular for easier ordering of EEG equipment and supplies at the best competitive price. We also distribute many more products: best solutions HRV feedback from Heartmath and Somatic Vision. Check it out online or...

**VISIT US in the PLAZA #11 TRADE SHOW to  
SEE the LATEST NEUROTECHNOLOGIES**

**For all inquiries, please email Rustam via:**

[info@mindmatters.com.au](mailto:info@mindmatters.com.au)

# Bio-Medical Instruments



**Bio-Medical Instruments Incorporated** carries a wide variety of biofeedback and neurofeedback equipment and supplies including EEG, qEEG, EMG, temperature, GSR & heart-rate products from major manufacturers.

Founded in 1972, we have over thirty-five years' experience working with physiological equipment and supplies. We offer service and repair for many biofeedback and neurofeedback machines. Our knowledgeable staff has the expertise to help you keep your system running.

When you buy from Bio-Medical Instruments, you receive technical support from both us and the manufacturer. If you are interested in biofeedback or neurofeedback training, workshops or conferences, visit our calendar or events.

**Representative, Brian Milstead, [brian@bio-medical.com](mailto:brian@bio-medical.com) [www.bio-medical.com](http://www.bio-medical.com)**

## NovaTech EEG



Nova Tech EEG offers two courses:

- *Nova Tech EEG QEEG Certification Course* accredited by the QEEG Certification Board and
- *Nova Tech EEG Neurofeedback Course* accredited by the Biofeedback Certification International Alliance.

In addition to these programs, Nova Tech EEG also offers a customizable option for a wide variety of Neurofeedback training from software, modules, interpretation, and more depending on the specific educational areas needed. Due to the busy and complex schedules that our customers maintain, Nova Tech EEG online training classes will offer the material through high quality, downloadable recordings. We also offer private on-site training or longer distance consultation via phone or webinar. For more details and training information contact us so we can work with you to facilitate your training needs.

**Leslie H. Sherlin, PhD, MSc, CMPC, QEEGD, BCN, BCB**  
*Co-Founder & Chief Executive Officer*

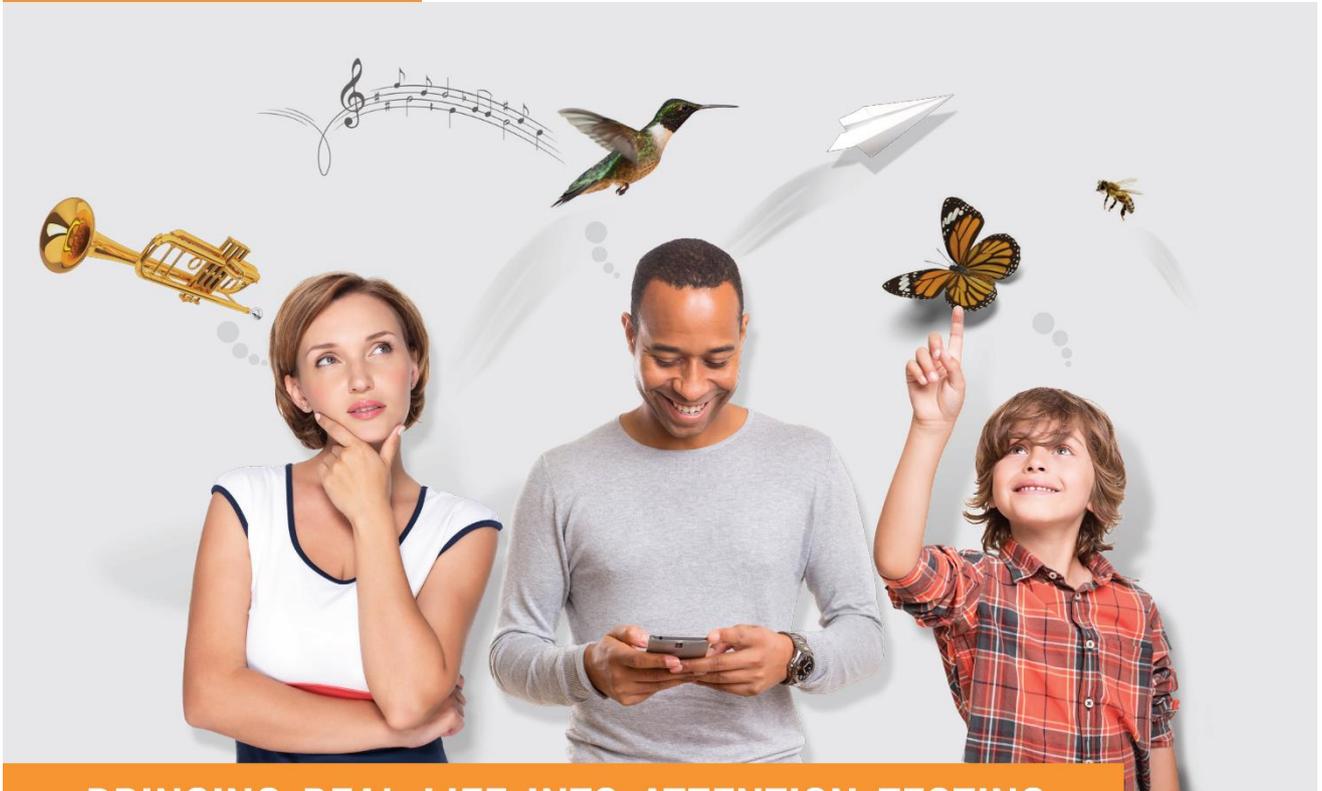
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# NEUROTECH SOLUTIONS

NEUROTECH

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## BRINGING REAL LIFE INTO ATTENTION TESTING

MOXO d-CPT is one of the leading validated continuous performance tests in the market. Over 250,000 MOXO tests have been completed to date by more than 5,000 clinicians in 700 centers world-wide

 **CLOUD BASED**  
no hardware or installation



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# Institute of Functional Neuroscience



**Institute of  
Functional Neuroscience**

*Inspiring Hope.  
Creating Expertise  
& Enhancing Humanity*

**The Institute of Functional Neuroscience welcomes you to the ANSA Annual Conference 2018!**

IFN is an interdisciplinary team of dedicated professionals who strive every day to inspire hope, create expertise and advance humanity in a population of patients that are experiencing unresolved complex neurological dysfunction.

The institute is internationally recognized in the application of neuroplastic principals and has clinics in Australia, Hong Kong, Canada and China. The clinical applications we utilize focus on modulating the activity of the brain that in turn changes activity throughout the nervous system. The changes brought about by modulating the activity of the brain are dependent on the natural processes of neural plasticity.

Neural plasticity involves activities that are fundamental to the nervous system including learning and functional change. The Institute recognizes and utilises these natural phenomenon to evoke change in targeted functional areas of the nervous system. This is done in order to encourage normalization of nervous system function in neurologic cases that traditionally do not respond satisfactorily to established treatment protocols such as migraines, seizures, depression and anxiety, stroke rehabilitation, post-traumatic stress disorders, autism, head injuries and spinal cord trauma.

We are internationally renowned leaders in the application and development of clinical neuroplasticity for the treatment of neurological dysfunction specifically custom designed for each patient's unique situation. Over the past 10 years we have developed international research collaborations investigating new cutting edge treatments and established multidisciplinary clinical teams to ensure the safest, most effective and efficient individualised treatments possible for our patients while also maintaining our sterling reputation of providing ethical, effective, evidenced based therapies. Everyday our multidisciplinary teams of healthcare professionals strive to improve our treatment outcomes and research programs to make sure our reputation continues to grow.

With the increasing awareness of neuroplasticity internationally we find ourselves in a growth industry, which is expanding rapidly around the world. However, the clinical delivery of individualized neuroplasticity therapy is in its infancy both in Australia and internationally.

**We invite clinicians who share our values of commitment to excellence in treatment delivery as well as our core values of empathy, honesty and compassion to join us on our journey to help as many people as possible. We have affiliate partner opportunities available throughout Australia.**

Email: [info@ifn.net.au](mailto:info@ifn.net.au)

Ph: (08) 6254 2282

<http://www.ifn.net.au/>



## Professional Training and Resources in Neuromodulation Therapies for Depression, ADHD, OCD and Sleep Disorders

The neuroCare Group is active in the fast-growing market for sustainable and medication-free alternatives in mental health, building a network of researchers, engineers and therapists throughout Australia and across the world who will promote neurotherapies and their correct application in clinical practice. Through appropriate advocacy and by promoting professional training standards, our mission is to see evidence-based applications of Neurofeedback and Neurostimulation techniques (i.e. rTMS, tDCS) become more widely understood and appropriately administered in mental healthcare practice in Australia, following countries such as The United States and The Netherlands.

This year the neuroCare Group is pleased to welcome Martha Mack (Psychologist) and Dr Trevor Brown (Neuroscientist) from the Listen And Learn Centre in Melbourne, alongside Sydney Psychiatrist Dr. Mark Ryan, who will offer ongoing training in a range of neuromodulation techniques (Neurofeedback, SCP Neurofeedback, Auditory Training, TMS, tDCS). We are also excited to announce leading Neurofeedback research, Dr. Martijn Arns will be visiting us in Sydney to co-present the 4-Day Neurofeedback workshop (BCIA approved) in early October. See course details below.

neuroCare is proud to be a **Silver Sponsor** of the ANSA Symposium for the third year in a row. Our team look forward to meeting with you all in Brisbane.

### Upcoming Workshops in Sydney and Melbourne

<p><b>1 – 4 October 2018</b> Sydney</p>	<p><b>Neurofeedback for ADHD and Insomnia (Biofeedback Certification International Alliance approved)</b> <i>Dr Martijn Arns (Biological Psychologist), Dr Trevor Brown (Neuroscientist) &amp; Dr Mark Ryan (Psychiatrist)</i></p> <p>Leading Neurofeedback researcher, Dr. Martijn Arns will present the latest research and evidence for Neurofeedback as a therapy tool for ADHD and sleep problems, focusing on the importance of QEEG (brain mapping) in personalising therapy programs and discussing relevant theory. This training course is based on the international 36-hour didactic Neurofeedback blueprint of BCIA.</p>	 <p><i>Dr Martijn Arns (NL)</i></p>
<p><b>27 – 28 October 2018</b> Sydney</p>	<p><b>Slow Cortical Potentials (SCP) Neurofeedback</b> <i>Dr Trevor Brown (Neuroscientist) &amp; Dr Mark Ryan (Psychiatrist)</i></p> <p>This 2-day workshop covers the neurophysiological foundations of SCPs and theoretical background of Neurofeedback, with ample time dedicated to hands-on training with correct technologies. Overview of treatment guidelines will be presented and discussed.</p>	 <p><i>Dr. Trevor Brown</i></p>
<p><b>9– 12 November 2018</b> Melbourne</p>	<p><b>Auditory Training Program™ – Foundations Course</b> <i>Martha Mack (Psychologist), Benjamin Ady (Speech Pathologist) &amp; Jonathan Galt (Audiologist)</i></p> <p>The course will cover the physiology and anatomy of the auditory system, assessment of auditory processing difficulties using gold standard assessment tools, intervention decision models, Besson Auditory Training System technical requirements and practical application of auditory training as a therapy.</p>	 <p><i>Martha Mack</i></p>
<p><b>10 – 11 November 2018</b> Sydney</p>	<p><b>Transcranial Magnetic Stimulation (TMS) for Depression &amp; OCD</b> <i>Dr Trevor Brown (Neuroscientist) &amp; Dr Mark Ryan (Psychiatrist)</i></p> <p>This is a hands-on training workshop which covers the use and theoretical background of TMS to treat Major Depression in clinical practice. It also presents emerging evidence as a therapy to treat OCD, as well as optimised benefits when combined with Psychotherapy. Neuro-Cardiac-Guided TMS (NCG -TMS) will also be presented.</p>	 <p><i>Dr Mark Ryan</i></p>
<p><b>8 December 2018</b> Sydney</p>	<p><b>Transcranial Direct Current Stimulation – An Introductory Workshop</b> <i>Dr Trevor Brown (Neuroscientist) &amp; Dr Mark Ryan (Psychiatrist)</i></p> <p>This workshop covers technical and neurophysiological theory of tDCS and offers an overview of the state of research, presenting a rationale for why tDCS is used in certain conditions and the evidence-base for its application. There will be hands-on demonstration of evidence-based montages in this workshop.</p>	

# TALI Train



## A Breakthrough in Early Childhood Intervention

- Scientifically proven
- Short regimen - long term benefits
- Detailed reports via built-in analytics



In a national household survey of the mental health and wellbeing of Australian children and adolescents aged 4 -17 years, conducted in 2013-14 ('Young Minds Matter'), Attention Deficit Hyperactivity Disorder (ADHD) was the most common mental disorder (7.4%, or about 307,000 children based on the 2015 population). Each year approximately 13,000 Australian children start school with a reduced attention capacity, diminishing their likelihood of academic success. These children may not go on to receive a diagnosis of ADHD, however these early attention difficulties still compromise a child's education, social skills, relationships, mental health, and employment opportunities as an adult. The impact on families' physical and emotional wellbeing is immeasurable; without early intervention, attention difficulties can have life-long consequences.

Financially, attention difficulties come at a huge cost to the Australian economy, and tremendous financial and social costs to individual families. Despite the enormity of the problem, access to effective, non-pharmacological treatment is limited. Part of the multimodal treatment planning for ADHD diagnoses includes consideration of medication, behaviour strategies like CBT, social skills intervention and educational case management. These often require multiple clinical appointments across many locations which can be expensive and time consuming, and may mean that children miss out on life-changing therapies. TALI Health, a Melbourne based medical technology company, is combining scientific

knowledge with cutting edge technology to provide the best tools to identify, manage and treat early childhood difficulties. TALI Health's training program, TALI Train, is the first of its kind to focus on directly improving attention skills. Designed by neuroscientists at Monash University, TALI Train has been designed as an early intervention program that strengthens core attention skills in children aged three to eight.

TALI Train is unique as it is the first training program developed for children with a heightened vulnerability to attention difficulties. The game-based training exercises are designed to maximise engagement and are adaptive to ensure that each child is working at his/her optimal capacity. Rigorous clinical trials show that improvements in attention and academic skills (numeracy) are retained 3 months after children complete the 5-week intervention, suggesting long term benefits and a lifelong advantage.

**TALI Train is now available to all healthcare professionals in Australia.**

For more information about the TALI Train program and how to incorporate it into your practice, visit our website or contact the TALI Health team.



# OchsLabs Australia

**OchsLabs** - is a dynamic research and software development company located at San Francisco Bay.

We provide support to well 2000 LENS practitioners across 27 countries. Our design team has created a software user interface that we call *smart technology* - intuitive, easy to use, and effective.

The LENS - Low Energy Neurofeedback System, is a unique, effective and safe form of neurotherapy that facilitates changes in people of all ages with a wide variety of presenting issues. As a result, it has the capacity to address numerous symptoms and deficits. It is remarkably effective, and over 85% of people who have used the LENS have benefitted significantly from it. Results can be seen quickly, often beginning within the first session, and are lasting.

It may be utilized as the primary treatment approach, or as an adjunct to other therapies. Patients across the lifespan, from young children to older adults, have benefited from LENS:

- LensWare3
- Photonic Stimulator

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The Leader in Neurofeedback Software

- Fast
- Highly Effective

For Symptoms of:

- PTSD
- ADHD/ADD
- TBI
- Seizures
- Bipolar
- Autistic Spectrum
- Reactive Attachment

OchsLabs is committed to bringing you the best neurofeedback software in the industry. Stop by our booth today, or contact our office to see how we can help you achieve the best and fastest results possible for you and your clients!

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**OchsLabs™**  
The Neurofeedback Experts



## The Biofeedback Certification International Alliance

*Isn't it time you were Certified?*

BCIA is recognized as the gold standard for certification in:

- Biofeedback
- Neurofeedback
- Pelvic Muscle Dysfunction Biofeedback

BCIA also offers a Certificate in HRV Biofeedback

*More than qualified — BCIA board certified!*

**Mission:** BCIA certifies individuals who meet education and training standards in biofeedback and progressively recertifies those who advance their knowledge through continuing education.

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For information regarding minimum standards for **Certification in Neurofeedback**, please enquire from the **Biofeedback Certification International Alliance - Australia** (BCIA - A) - [bciaaustralia@gmail.com](mailto:bciaaustralia@gmail.com)

### QEEG Certification

For information regarding minimum standards for certification in Quantitative EEG analysis and interpretation, please visit the QBoard - <http://qeegcertificationboard.org/>

# Introducing ANSA

The Applied Neuroscience Society of Australasia is a membership organization comprised of Health Professionals from Australia, Australasia and New Zealand, involved in the promotion of better mental health. ANSA promotes education and professional excellence in the fields of Applied Psychophysiology, Neurotherapy and Nutrition seeking to obtain broad acceptance of this combination of disciplines as a viable treatment approach in mental health.

Neurotherapy, also called Neurofeedback, EEG Biofeedback or EEG operant conditioning, is the most commonly used form of regulation of brain electrical activity. It is often used in conjunction with other forms of biofeedback as well as medicine, clinical and educational psychology, social work, nursing, nutritional approaches, chiropractic and osteopathy.

Qualified professionals who practice within this framework are invited to submit an application for membership - <http://appliedneuroscience.org.au/page-65866> .

## *Origins of ANSA*

ANSA was formed in November 2006 from the amalgamation of the AAAPB (Australian Association for Applied Psychophysiology and Biofeedback) and the Pacific Rim Chapter of the iSNR (International Society for Neurofeedback & Research) - under the original incorporation of the AAAPB.

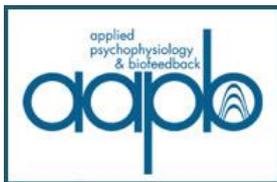
### A short history of Pacific Rim Chapter of ISNR

The Australia Pacific Rim Chapter of the iSNR was established in 1999 in Brisbane. Since then the organisation grew steadily and attracted people from various professional disciplines conducting neurotherapy training and research. iSNR has supported education and the promotion of excellence in the field of neurotherapy and the promotion of the acceptance of this discipline by society.



### A Short History of the AAAPB

AAAPB was established largely through the efforts of Dr. Del Sherlock, psychologist and founding member, who studied brain asymmetry for her PhD at Monash University. While attending the 1995 'Australian Psychological Society Conference' in Cairns she was encouraged by the potential of Biofeedback for self-regulation. A network of interested psychologists started to meet at workshops presented by biofeedback specialists and eventually became members of the U.S. based Association for Applied Psychophysiology and Biofeedback (AAPB).



A small committee in Australia became involved in providing regular Newsletters and monthly teleconferences to interested professionals throughout Australia and eventually incorporated the Australian Association for Applied Psychophysiology and Biofeedback (AAAPB) with Don Brinkworth as Secretary and Dr. Rob Apathy as President. To coincide with the Incorporation of the AAAPB an inaugural Conference was held at the John Curtin School of Medical Research, ANU Canberra, on the 25th May, 1997.

While 2018 marks the 12<sup>th</sup> National Conference of ANSA, this is the **21st anniversary** of our applied neuroscience professional body in Australia.

# ANSA Education & Certification Initiatives

In 2009, a sub-group of ANSA members established an Interest Group within the Australian Psychological Society (APS) to enhance the professional identity of neurofeedback practitioners and to strengthen the link between the fields of psychology and neuroscience. Access membership details for the **APS NFB & Psychology Interest Group** at - <http://groups.psychology.org.au/igs/>

In 2010, ANSA agreed to the development of an independent body whose role would be to develop and oversee standards for certification of neurofeedback practitioners within Australasia. It was also agreed that this new organization would be affiliated with The Biofeedback Certification International Alliance. The Biofeedback Certification International Alliance – Australia Inc (BCIA-A) was first registered in Australia in 2011. For information regarding **minimum standards for neurofeedback certification**, please enquire via email to [bciaaustralia@gmail.com](mailto:bciaaustralia@gmail.com)

Also in 2010, Jon Hegg initiated a study group among ANSA members who shared an interest in the field of Quantitative Encephalography. The 'Q-Club' members met regularly over the next five years to improve their understanding of EEG and its potential to contribute to assessment and intervention. Since 2016, **QClub** has evolved to structure professional development in QEEG to attain the minimum standards required for **QEEG Certification**. You can access full information about the QEEG Certification from <http://qeegcertificationboard.org/>. QClub provides a collegiate avenue for ANSA members and guests to access didactic training, mentoring, informative webinars and QEEG study groups. To learn more about QClub registration, email [michelle@msmh.com.au](mailto:michelle@msmh.com.au)

## ANSA Member Benefits

- ✓ **Discounted registration** for our Annual Conference and Professional Development Workshops
- ✓ **Affiliate membership of iSNR**, International Society for Neurofeedback and Research, including full access to iSNR journals and membership benefits. Members contact iSNR for their unique login details after ANSA pays the annual affiliate fees.
- ✓ **Access to Psyche Visual** online resources <http://www.psychevisual.com/> via the ANSA website. Psyche Visual provides an innovative approach to adult learning in the fields of psychology, psychiatry and mental health care. Users will find papers and multimedia presentations easy to access and are given a wide range of material of value to professionals and to the public.
- ✓ **ANSA Practitioner Directory** where members can opt to have their professional practice details accessible to general public online. The website is also the place to go for:
  - Up to date details of upcoming events
  - Access to scientific papers, Professional Journals (AAPB & *iSNR*)
  - Member information and resources.
- ✓ **Opportunities for active participation** in Committees, sub committees, interest and discussion groups to shape the future of applied neuroscience in Australia.

Enquiries to: [secretary@appliedneuroscience.org.au](mailto:secretary@appliedneuroscience.org.au)

# Thursday/Friday Preconference Workshop

Location: 12<sup>th</sup> Floor Terrace Room, Rydges South Bank Hotel

## A Review of Neural Networks: Theoretical Applications

This workshop will provide a review on the evidence to date of neural networks and functional correlates. The workshop will integrate theoretical neurotransmitter networks and a more detailed discussion cross frequency coupled communication through lifetime development and how this enables behavioural adaptability. Models of neurotherapeutic techniques will be reviewed in treating developmental disorders will be discussed. Neural networks are currently the most salient models evolving on how the brain facilitates behavioural adaptability. The science and issues are applicable to the researcher trying to understand how these systems develop and to the clinician to utilize in treating disorders. Participants will attain a basic understanding of neural networks, the complications in understanding when to use the current state of the knowledge in designing neurofeedback and other neurotherapeutic protocols.

Time	Schedule
8.30am	Registrations
9.00am	Session 1
10.30am	<i>Morning Tea</i>
11.00am	Session 2
1.00pm	<i>Lunch</i>
2.00pm	Session 3
3.30pm	<i>Afternoon Tea</i>
4.00pm	Session 4
5.00pm	Close

**Presenter, Dr David Cantor, Ph.D., M.S., QEEG-D, BCN, FNAN**



Dr. Cantor received his Bachelor Degree with Distinction in Psychology from the University of Connecticut. His honors work was in the field of neurophysiological correlates of cross modal integration processes in ADHD children. He went on to get his Masters and Doctorates in Psychology at SUNY, Stony Brook where he produced the first publications in history on demonstrating classical conditioning in human infants and another first on the quantitative EEG correlates in Autism. He helped developed the first prototype system to monitor comprehensive brain functioning in coma patients at bedside at the Shock Trauma Institute in Maryland. Dr Cantor attained a post-doctoral Masters Degree in Clinical Psychopharmacology from Farleigh Dickinson University.

Dr Cantor is a former President of the EEG and Clinical Neuroscience Society, and is a Fellow in the National Academy of Neuropsychology, the Academy of Learning and Developmental Disorders, and the American College of Forensic Examiners. He was selected as an APA Congressional Fellow and New York State Fellow in Behavioral Sciences. He is currently licensed as a psychologist in the States of Georgia, Maryland, and Washington, D.C. In addition to his clinical activities with the Mind & Motion Developmental Centers of Georgia, he is also the CEO of BrainDx, LLC which produces analytic software on brain function for a world-wide market, and is a Founder of the Innovative Health Foundation, a non-profit foundation that assists families with special needs conditions. He has several awards and publications in the general fields of developmental disorders, biobehavioral sciences, and functional neurosciences. He is on the Speakers Bureau for National and State psychological associations and has made several radio and television appearances.

**2018 ANSA Conference, *Welcome Reception***  
**5.30pm – 7.30pm Soleil Pool Bar, Rydges South Bank Hotel**

# Saturday Conference Schedule

8.00-08:30am Registration Desk open

8:30am Welcome by **Michelle Aniftos**, ANSA President

9.00am Keynote Presentation, **A Model for a Multidisciplinary Approach to Integrate Neurofeedback Protocols in the Treatment of Childhood Disorders**, Dr David Cantor (*see biography on previous page*)

Neurofeedback therapies need to consider the influence of factors of diet, toxins, and the application of allied health intervention techniques in order to optimize clinical outcomes in developmental disorders. This presentation will provide an overview illustrating the importance of examining patient symptoms in the context of developmental and medical history and how such information either facilitates or undermines neurotherapeutic success. The future of using multivariate discriminant functions to help define functional ability for the purposes of diagnostics but also for treatment will be proposed.

10:15 – 10:45am Welcome to our Sponsors

## Company

Neurotherapy Institute of Australia  
Biomedical Instruments  
Institute of Functional Neuroscience  
Medilink Australia  
OchsLabs  
TALI Health  
Brain, Mind & Memory Institute  
neuroCare Group  
NeuroTech Solutions  
NovaTech EEG

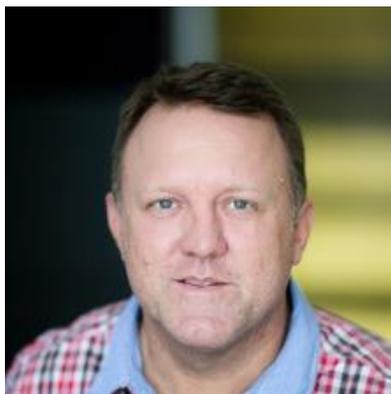
## Representatives

Moshe Perl & David Perl  
Brian Milstead  
Randy Beck & Marianne Beck  
Jenni Nowland & Wolfgang Storf  
Kerryn Coombe & Daphne Waldo  
Michelle Thornes-Stone, Glenn Smith & Linda Bourke  
Rustam Yumash & Sydney Stokes  
Trevor Brown & Sally Remington  
Mel Licker  
Leslie Sherlin

**10:45 - 11.10am Refreshments Break, Plaza #11 with Sponsors & Exhibitors**

11.15 – 12noon Lecture, **QEEG changes in stroke, ageing and cognitive decline**, Dr Simon Finnigan

Simon Finnigan has over 20 years' experience in EEG research, including 16 years' experience in multi-disciplinary clinical studies. He has a PhD in physiological psychology (UQ, awarded 2002). Simon's primary research focus has been using QEEG methods, together with clinical observations, to assess brain dysfunction and help predict functional outcomes for acute stroke patients. He has also been involved in studies of ageing and cognitive decline, mental health conditions, and infants born preterm. These include QEEG, ERP and imaging studies. For most of his career he has been based at Royal Brisbane & Women's Hospital while working for the University of Queensland, and also worked for two years at Trinity College Dublin. In recent years he has also held research positions in Metro North Hospital & Health Service (Queensland Health). Simon has presented at numerous conferences and authored numerous papers published in international journals such as 'Stroke' and 'Journal of Neuroscience'. He is currently on the Editorial Board of 'Clinical Neuro-



# Saturday Conference Schedule, *continued...*

*Dr Simon Finnigan biography continued*

physiology' (official journal of the International Federation of Clinical Neurophysiologists). He is one of nine co-authors of "A revised glossary of terms most commonly used by clinical electroencephalographers and updated proposal for the report format of the EEG findings" (Clinical Neurophysiology Practice 2017; 2:170–185). He has had a long-standing interest in neurofeedback, which he has recently begun to pursue more actively.

## **QEEG changes in stroke, ageing and cognitive decline**

In this talk I will cover QEEG research in acute stroke, also ageing and cognitive decline, including studies done by myself and also international studies. The appearance of slow delta activity (1-4 Hz) is typical in acute stroke, and alpha activity is also affected (e.g. slowed) in more severe strokes. Our studies have shown that QEEG measures of delta power, and delta/alpha power ratio, are very informative for assessing response to acute treatments and also in relation to predicting functional outcomes from stroke. Our current hypothesis is that delta activity may reflect a functional disconnection between cortical and thalamic regions (thalamo-cortical dysrhythmia).

We have also found that early measures of alpha slowing in acute stroke patients may help predict cognitive outcomes. In other studies we have shown that high, resting-state theta (4-7 Hz) power in healthy older adults is associated with better cognitive function. This theta activity is generated in brain networks incorporating medial temporal, anterior cingulate and other cortical regions. We have also found theta power to be lower in people with mild cognitive impairment. Considering various findings from our studies and those of others, we have proposed that two forms of theta-frequency activity exist; one indicative of healthy neurocognitive function and the other, of alpha slowing linked to (future) cognitive decline.

I will aim to discuss the potential implications of QEEG findings such as these, with regard to neurofeedback protocols aiming to address and ameliorate particular conditions or symptoms.

12noon – 12.45pm Lecture, **What's Sleep Got to Do With It?**, Dr Mark Ryan



Mark Ryan is a Psychiatrist with a strong interest in understanding the mind-brain-body nexus and new approaches in therapies that can improve and sustain mental health and well-being. He has worked primarily in consultation liaison psychiatry, providing care in medical and surgical wards and more recently is accumulating and developing expertise in applying personalised neuromodulation treatments, incorporating these with other established treatment approaches.

In 2016 he joined the neuroCare Group and engaged with neuroCare's personalised system of treatments in mental healthcare. He works with neuroCare's research team to deliver evidence-based methods of integrating brain-based technologies with interpersonal therapies, and is trained to administer repetitive Transcranial Magnetic Stimulation (rTMS) and Neurofeedback. He has a particular interest in the link between sleep and both physical and psychological wellbeing. The orientation is identifying the range of trans-diagnostic neurobiological markers that link with the clinical symptomatology and endophenotype enabling greater specificity and efficacy in treatment. Mark is a Fellow of the Royal Australian and New Zealand College of Psychiatrists and is a BCIA-A accredited neurofeedback practitioner.

## Saturday Conference Schedule, *continued...*

### **What's sleep got to do with it? The role of sleep in mental and physical health, learning, brain plasticity and neuromodulation treatment outcomes, Dr Mark Ryan**

Sleep is a complex neurobiological process and the 'new' unconscious. Sleep problems are increasingly identified as having a central role in onset and maintenance of a range of mental and physical health problems. Sleep-wake is a cyclical inter-dependent process, essential for our health, well-being and longevity. Understanding, assessing, educating and effectively treating sleep problems should be a core component of our treatment methods.

This session will highlight the importance of identifying and addressing sleep problems in enhancing treatment efficacy and outcomes; the role sleep problems play in onset and maintenance of psychological and behavioural disorders. This presentation will be based on published research and methods as applied in the neuroCare clinic, including the recent finding that concurrent circadian rhythm sleep disorder (CRSD) predicts non-response to rTMS for OCD and the key role of neurofeedback in improving sleep processes in ADHD. The approach highlighted in the presentation is presently not the prevalent 'magic bullet' medication based approach so favoured by medical practitioners and others.

### 12.45 – 1.30pm Lecture, **Which Neurofeedback Methodology Shows Best Results**, Dr Moshe Perl



**Dr. Moshe Perl, PhD** holds a BS in Physics from the University of Tel Aviv, an MS in Psychology from the University of Texas at Tyler and received his PhD in Clinical Psychology with a minor in Behavioural Medicine from the University of North Texas, in 1982. Since that time, he has worked as a consultant to schools, Departments of Juvenile Justice, and the Children's Court, both in the United States and in Australia. Since 1998 Dr. Perl has been involved in Neurofeedback, and its integration into his work with ADHD, Behaviour and Anxiety Disorders. He has presented his work at a variety of professional conferences and has run seminars for parents and teachers. Dr. Perl currently runs a private practice clinic in Melbourne, which focuses on ADHD, ASD, Behaviour Management, PTSD, Individual and Family Psychotherapy. He has been coordinating and running professional trainings in Neurofeedback, EEG and ADHD diagnostics since 2000. He is a current fellow, past president and past secretary of ANSA. Dr. Perl is BCIA-A certified in neurofeedback and is also a QEEG Diplomate. He currently teaches and mentors psychologists and neurofeedback practitioners.

### **Which Neurofeedback Methodology Shows Best Results: 50 years of research on neurofeedback**

A review of neurofeedback and neuromodulation literature was undertaken. The comprehensive bibliography available at the International Society for Neurofeedback and Research (ISNR) was analysed and augmented by a search for neurofeedback publications over the past three years. Modalities reviewed included single and two-site amplitude training (including beta-smr, alpha theta, theta-beta ratio, z-score, alpha training, alpha asymmetry training), coherence training, slow cortical potential training, 19 channel z-score training, LENS neurofeedback, infra low frequency training, TMS training, DCS training and fMRI training. The studies were analysed for year published, subjects, research design, target symptoms and outcomes. Conclusions were drawn as to what can reasonably be stated concerning the efficacy of these modalities.

**N.B.: TBI and Thalamocortical Disconnect: Implications for Neuromodulation,**  
a webinar by Dave Siever, will be available to all delegates via weblink.

# Saturday Conference Schedule, *continued...*

**01.30pm – 02.25pm Lunch, Plaza #11 with Sponsors & Exhibitors**

**1.45pm BCIA-A AGM in Plaza #10**

**1.45 -4.45pm Examinations for BCIA Neurofeedback & QBoard QEEG Certification in *RYDGES Podium #5 Room***

2:30pm Keynote, **Evidence for Efficacy of LENS Neurotherapy**, Dr Len Ochs



Len Ochs, PhD is an internationally known psychotherapist and biofeedback expert. His views are controversial, but are usually said to make sense. He was a psychologist from 1975 to 1988. Dr. Ochs was recognized as the “grandfather” of computerized neurofeedback by the Biofeedback Society of America. In 2014, he was recognized by the International Society of Neurofeedback and Research (ISNR) for his pioneering contributions to the field neurofeedback and was honored with the Joel F. Lubar award for the advancement of neurotherapy.

Dr. Ochs invented the Low Energy Neurofeedback System (LENS), the development of which was further funded by OchsLabs, Inc. under the leadership of Catherine R. Wills, CNS, MSN, RN. His system has impacted the lives of thousands of people on six continents. In 2006, another pioneer in the field of neurofeedback, H. Stephen Larsen, PhD, wrote a book titled: “The Healing Power of Neurofeedback: The Revolutionary LENS Technique for Restoring Optimal Brain Function” as an introduction to the innovative therapy Dr. Ochs developed to restore enhanced brain functioning after physical or emotional trauma. Larsen views LENS therapy as “an important alternative to chemical approaches for chronic behavioral disorders as ADHD and monopolar and bipolar depression.” LENS therapy provides an alternative to electroshock and drug treatments. LENS has also been used for anxiety, depression, addiction, ADHD, autism, and other childhood developmental disorders by increasing the brain’s ability to adapt to imbalance caused by trauma on not just the primitive level but also on the cognitive, affective and spiritual processes that define who we are as humans.

Dr. Ochs has pioneered a science that realizes the significance of feelings and has developed an innovative technique on how to adapt and non-invasively manage the most difficult emotions to enable those trapped by their traumas and neuro-disorders to live an optimal life.

## **Evidence for Efficacy of LENS Neurotherapy**

This paper will statistically demonstrate that (1) the LENS changes the EEG, and (2) leads to symptom reduction with the use of feedback and without the use of operant conditioning or qEEG-based electrode placement. The LENS uses an hydraulic model of EEG energy flow in the brain, that includes energy flow of suppressive energy, that is tied to EEG changes, and not symptom-tied EEG placements, although all of the usual symptoms are strongly, expeditiously, and non-linearly reduced. One of the features of the LENS, aside from not using operant conditioning at all, is that any 10-20 site may receive as little as .02 seconds of feedback to effect reduction in the usual symptoms.

3.15pm Lecture, **LENS and Neural Regulation: Brain & Body**, Dr Ulrich Lanius

*(biography & abstract follow next page)*

# Saturday Conference Schedule, *continued...*

3.15pm Lecture, **LENS and Neural Regulation: Brain & Body**, Dr Ulrich Lanius



Dr. Ulrich F. Lanius is a Registered Psychologist in Vancouver, BC with a practice in Clinical and Neuropsychology. Dr. Lanius specializes in the treatment of traumatic stress and related problems with a particular interest in brain-behaviour relationships with regard to attachment, trauma and dissociation. Working from a client-centered perspective, he integrates mindfulness-based approaches with EMDR, body-focused therapy and ego-state interventions. In addition, he utilizes neurotherapy with a particular focus on LENS neurofeedback. Dr. Lanius has presented both in North America, as well as internationally and he has authored and co-authored a variety of book chapters and articles on both the treatment and the neurobiology of dissociation. He is a Fellow of the international Society of Trauma and Dissociation, a Board Certified Expert in Traumatic Stress, a Diplomate of the American Academy of Experts in Traumatic Stress and an EMDR Approved Consultant.

## **LENS and Neural Regulation: Brain & Body**

The use of LENS Neurofeedback and its integration with psychotherapeutic interventions is discussed. LENS is unique in the field of neurofeedback in that it applies the concept of neural regulation not only to the brain but also to the body, reflecting both Top-down and Bottom-up interventions. Such an integrated bodymind approach dovetails uniquely with other information processing interventions.

On that basis it is suggested that LENS is ideally suited as either a stand-alone or adjunctive intervention for individuals with a history of developmental trauma who routinely exhibit disorganized and dysregulated neural activity that interferes with effective psychotherapeutic interventions. Approaches unique to the LENS, like the notion of EEG suppression that is specifically relevant to developmental trauma are discussed, as well as adaptations of LENS to this population that include interventions drawn from integrating the neuroscience literature, traditional neurofeedback and clinical observations.

Case studies are presented to demonstrate the integration of LENS neurofeedback and associated neural regulation approaches into standard trauma treatment interventions. Particularly emphasis is on how such interventions can be interwoven and integrated with more traditional trauma treatment interventions, such as Ego-State Therapy, EMDR and Somatic Psychotherapy. It is proposed that the addition of LENS neurofeedback during all three trauma treatment phases (stabilization phase, trauma processing, re-integration) can assist in increasing therapeutic response by directly intervening at the level of the electrical or frequency domain of brain function.

4.15pm **Seeking Certification in Neurofeedback and/or QEEG?: Q & A** with Michelle Aniftos

This is an informal session to overview current certification prerequisites and processes for Certification in Neurofeedback as managed by the Biofeedback Certification International Alliance in Australia. Michelle will also overview the support offered by ANSA's QClub to members seeking to achieve QEEG Diplomate or Technologist status.

**Gourmet BBQ Dinner & DJ**

**6.30pm – 10pm Terrace Room at Gallery of Modern Art**

# Sunday Conference Schedule

8.00 - 8:30am Registration Desk open

8:45am Welcome by **Martha Mack**, *Convener of APS Neurofeedback & Psychology Interest Group*

9:00am Keynote Presentation, **qEEG as a Base to Neurofeedback Treatment: Is it reliable enough?**



**Dr. Rivi Sela** is the co-founder and CEO of BetterFly Neurofeedback, an innovative cloud-based neurofeedback technology that allows clinicians to treat patients both in the clinic and at the patients' homes. Rivi pioneered the neurofeedback field in Israel and has trained many neurofeedback clinicians. She founded the BrainGames-Israel clinics ten years ago, and treated hundreds of patients suffering from ADHD, epilepsy, autism, anxiety and depression. Under her supervision, the BrainGames clinics have provided diagnostic evaluations, QEEG recordings and analyses and non-drug interventions to patients of all ages, both children and adults. Prior to embarking on her neurofeedback career, Rivi served for many years as the Chief Technology Director of the Sheba Hospital, the largest medical centre in Israel, and specialized in developing and implementing clinical technologies, including both hardware and software components. In that framework, she collaborated with leading companies from around the world.

## **qEEG as a Base to Neurofeedback Treatment: Is it reliable enough?**

In 2004 a position paper on the standards of use of QEEG in neurofeedback was published by a group of leading therapists in our field (Dr. Hammond, Dr. Walker, Dr. Hoffman, Dr. Lubar, Dr. Trudeau, R. Gurnee, Dr. Hovart). This position paper was accepted by the ISNR board as an official position paper of the ISNR. The paper states, among other things, that a growing number of clinicians use qEEG to decide on neurofeedback protocols, and that a growing body of peer reviewed research attests to the utility of the qEEG in providing a scientifically objective and clinically practical assessment of a wide range of psychiatric, psychological and medical conditions. The paper also reached the following conclusion: "It is not necessary for a physician to screen raw EEG data as part of a qEEG evaluation for neurofeedback training." In the last 14 years since that position paper was published, many neurofeedback therapists accepted qEEG as their basis for deciding on training protocols, and they use automatic analysis software for holding spectral analysis and comparison to age norms. By the maps and diagrams that the software produces, they decide where to place the electrodes and which frequencies to train.

The presentation will demonstrate step by step why deep understanding of the raw EEG is crucial to reading the qEEG maps and diagrams accurately, in order to reach the correct neurofeedback protocols. The 45-minute presentation will use EEG/qEEG examples to show the following:

- Common EEG artifacts that might distort the information presented by qEEG
- Common mistakes in reading the qEEG maps
- What extra information the raw EEG gives us
- Paroxysmal EEG and its effect on the qEEG

10am Keynote, **Optimising Performance in Development and Attention Disorders: Foundations & Progress in a Mixed-Methods, International, Multisite Feasibility Study**, Dr Leslie Sherlin

*(biography & abstract follow next page)*

## Sunday Conference Schedule, *continued...*

10am Keynote, **Optimising Performance in Development and Attention Disorders: Foundations & Progress in a Mixed-Methods, International, Multisite Feasibility Study**, Dr Leslie Sherlin



**Leslie Sherlin** PhD is an adjunct associate professor in the department of mind-body medicine at Southwest College of Naturopathic Medicine; faculty in the department of psychology at the University of Phoenix; and adjunct faculty in the department of psychology at Northern Arizona University. He is listed in the United States Olympic Committee Sport Psychology and Mental Training Registry; is a Certified Consultant by the Association for Applied Sport Psychology; certified at the Diplomat level in quantitative electroencephalography (QEEG); and is Biofeedback Certification International Alliance Board Certified both in Biofeedback and Neurofeedback. He has served on the board of directors for both the International Society for Neurofeedback and Research and the BCIA in a number of elected positions including the President. Dr. Sherlin has focused his efforts in the domain of athlete and elite performance since 2008 when he co-founded SenseLabs and operates as the Chief Science Officer. From

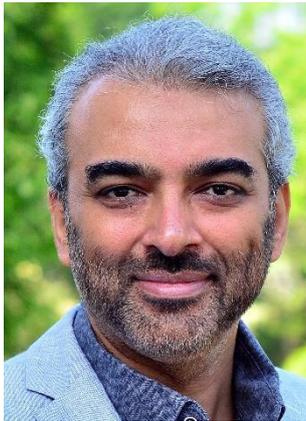
May 2012 - May 2013 he completed his professional re-specialization in sport psychology and completed a postdoctoral fellowship in sport psychology with Pinnacle Performance at D.I.S.C. Sport and Spine Center in Marina Del Rey, CA under the supervision of Michael Gervais, PhD.

**Optimising Performance in Development and Attention Disorders**

**11 - 11.25am Refreshments Break, Plaza #11 with Sponsors & Exhibitors**

# Sunday Conference Schedule, *continued...*

11:30am Keynote, **Factors Affecting Learning & Memory: Implications for Intervention**, Aamir Malik



Aamir Malik completed a Bachelor degree in Electrical Engineering from University of Engineering & Technology, Lahore; Masters in Information & Communication and Ph.D in Information & Mechatronics from Gwangju Institute of Science & Technology, South Korea. He has 15+ years of research experience and has worked for IBM, Hamdard University, Government of Pakistan, Yeungnam University and Hanyang University during his career. He is currently working as Associate Professor at Universiti Teknologi PETRONAS in Malaysia. He is a fellow IET, Board Member Asia Pacific Neurofeedback Association (APNA) and senior member IEEE. His research interests include brain signal & image processing with emphasis on personalized learning and workplace stress. He is the author of 4 books and more than 200 research publications.

## **Factors Affecting Learning & Memory: Implications for Intervention**

Cognitive processing of contents during learning involves the selection of relevant visual and auditory information, organization of visual & auditory information, activation of the prior contents in memory, and the integration of new contents with the organized verbal and visual information in the brain. These cognitive processes occur in the individual's working memory for information manipulation and long-term memory for permanent storage. Individual differences in multimedia learning depend on multimedia comprehension skills, general intelligence and working memory capacity. This talk will present number of factors affecting learning and memory and the corresponding implications for the intervention techniques that need to be tailored to address these factors in order to enhance individuals' performance in learning.

12:30pm Keynote: **Connecting the Dots in ADHD: insights from research in brain connectivity and network organisation in ADHD and its implications for diagnostic types and treatment**, Jacqueline Saad



**Jacqueline Saad** is a doctoral student in the Discipline of Psychiatry, Sydney Medical School, University of Sydney. She is a Psychologist and Director of My Brain Map™, Sydney. Jacqueline also consults at the Woolcock Institute for Medical research. Her research, based on the international iSPOT study, investigates the neurobiological pathways of the clinical subtypes of ADHD using neuroimaging measures, to better understand the underlying pathophysiology of this highly prevalent neurodevelopmental condition. Her main research interest involves the availability of brain-based biomarkers, which may further predicate ADHD pathophysiology, improve diagnostic accuracy, treatment prediction and yield better clinical outcomes.

## **Connecting the Dots in ADHD**

Attention Deficit Hyperactivity Disorder (ADHD) is characterized clinically by hyperactive/impulsive and/or inattentive symptoms which determine diagnostic subtypes as Predominantly Hyperactive-Impulsive (ADHD-HI), Predominantly Inattentive (ADHD-I), and Combined (ADHD-C). Exponential growth in neurobiological research over two decades, uncovering key brain features underlying functional deficits in response inhibition, hyperactivity, and inattention. Emerging evidence from these studies suggests that connectivity differences may better conceptualize ADHD subtypes and explain variations in functional symptoms which has led to an increase in the adoption of network based analyses in the ADHD literature. This paradigm shift posits that the clinical symptoms of ADHD may, in fact, result from dysfunctional network connections rather than discrete structural or functional abnormalities. Individual differences in connectivity profiles may also underlie the different clinical symptoms associated with each subtype of ADHD. We have shown in our studies that local network organization differs between the combined and inattentive ADHD types when measuring structural network properties. I will aim to discuss the potential implications of brain connectivity and network findings in ADHD subtypes and differences in neural mechanisms between the types with regard to implications for neurofeedback treatment.

# Sunday Conference Schedule, *continued...*

**01.30pm – 02.25pm Lunch, Plaza #11 with Sponsors & Exhibitors**

**1.45pm APS Neurofeedback & Psychology Interest Group AGM in Plaza #10**

2:30pm Keynote, **Abnormal Cortical Asymmetry as a Target for Neuromodulation in Neuropsychiatric Disorders**, Dr Randy Beck



**Dr. Randy Beck** BSC (HONS), D.C., Ph.D.,FAAFN is a Chiropractor and Director of the Institute of Functional Neuroscience, Perth who is an internationally renowned expert in the field of clinical neuroplasticity and neuroplastic restructuring techniques. His textbooks on the subject are considered the standards in education and clinical practice in the field of Functional Neurology. Dr. Beck has authored several articles and two textbooks including Functional Neurology for Practitioners of Manual Medicine. He is a frequent speaker at international and national conferences, seminars and workshops.

Dr. Beck is the past President of the Australasian Academy of Functional Neurology. Dr Beck currently guest lectures in the School of Medicine, University of Western Australia in the school of Psychiatry and Clinical Neuroscience and has previously held positions as Professor in Clinical Neurology at the Carrick Institute for Graduate Studies in Florida, USA and Senior Lecturer in Neurology and Clinical Diagnosis at Murdoch University in Perth. Dr Beck is the recipient of the prestigious Excellence in Teaching award from Murdoch University and the Neurologist of the year award of the International Association of Functional Neurology, Rehabilitation and Ergonomics.

## **Abnormal Cortical Asymmetry as a Target for Neuromodulation in Neuropsychiatric Disorders**

*Randy W Beck, Jonathan Laugharne, Richard Laugharne, Wessel Woldman, Brendan McLean, Chiara Mastropasqua, Ricardo Jorge, Rohit Shankar*

Recent advances in our knowledge relating to the organisation of neural circuitry in the human brain have increased our understanding of disorders involving brain circuit asymmetry. These asymmetries, which can be measured and identified utilizing EEG and LORETA analysis techniques may be a factor in mental disorders. New treatments involving non-invasive brain stimulation (NIBS), including transcranial magnetic stimulation, direct current stimulation and vagal nerve stimulation, have emerged in recent years. We propose that EEG identification of circuit asymmetry geometries can direct non-invasive brain stimulation more specifically for treatments of mental disorders. We describe new NIBS therapies that have been developed and delivered, and suggest that they are proving effective in certain patient groups. Clinical evidence is at an early stage, but the basic science evidence and early case studies suggest that this may be a promising new modality for treating mental disorders and merits further research.

# Sunday Conference Schedule, *continued...*

## 4:00pm ANSA Annual General Meeting, 19/08/18 in BCEC Plaza 10

### Order of Business

Welcome by the Chair.

1. Attendees:
2. Apologies:
3. Tabling of Proxies:
4. Minutes of the previous AGM to be moved by the Secretary as a true and accurate record.
5. Matters arising from the AGM Minutes 2017:
  - a. Notifications to the Department of Fair Trading.
  - b. Nerida Saunders' proposal for discussion "approaching Medicare to cover neuroscience protocols".
  - c. Richard Clark accepted nomination as President-elect of ANSA & was duly elected at the 2017 AGM. This position would enable Richard to become President from the 2019 AGM. Unfortunately, as Richard has resigned from the 'Board, the position of President-elect is currently vacant.
6. Reports by:
  - [i] President: Michelle Aniftos
  - [ii] Treasurer: Terry Eichmann
7. Election of Office Bearers

*President-Elect, Secretary, Treasurer, Public Officer (must be NSW Resident)*  
*Additional Committee Members – roles designated by the Executive Board Members*
8. Nomination of Signatories – committee members
9. Statement of Intention to forward items to the Department of Fair Trading & to the Australian Charities and Not-For-Profit Commission, e.g.
  - notification of change of office bearers; ANSA postal address & Secretary's residential address
  - notify of modification to the association rules (constitution) –
10. OTHER BUSINESS:
  - a) Fellowships & Honorary Memberships – Nominations are requested for consideration for the election of ANSA members to the position of Fellow in recognition of their service to the Society .
  - b) Call for Certified Neurofeedback providers to volunteer to serve on the BCIA-A committee.
  - c) Call for ANSA members to volunteer to participate/organise the QClub.
  - d) Any other business
11. CLOSURE OF MEETING:

***5pm Conference Close: Happy Hour on Plaza Terrace***

18:30 – 21:00 ANSA Executive & Guests - Dinner Meeting  
Venue: tba

# Monday Post-conference Workshop

Location: Arbour Room, Brisbane Convention & Exhibition Centre

## Advanced EEG Analysis & Neurofeedback Protocol Design

EEG and Quantitative EEG (qEEG) are valuable tools for supporting the diagnosis and targeted, effective therapy of a host of different neuropsychological disorders. This one-day hands-on workshop will go over EEG biomarkers to classify brain disorders and to reach more personalized treatment protocols. The workshop will demonstrate step by step how to analyze Raw EEGs, using sample recordings of patients suffering from ADHD, ASD and Epilepsy. This workshop includes:

**Part 1:** Neuromarkers characterizing the different types of ADHD and typical neuromarkers prevalent in ASD.

**Part 2:** Hands on analysis of qEEG. We will look at the raw EEG and then analyze the qEEG using Spectra charts, diagrams, maps, spike detection and spike averaging. We will also use visualization methods, such as Dipole Approximations and Low Resolution Electromagnetic Tomography (LORETA).

**Part 3:** Deciding on a treatment protocol based on the Raw EEG and qEEG analyses and following treatment outcomes using qEEG.

**Part 4:** Open discussion and analysis of EEG recordings brought by the attendees.

The workshop is a hands-on learning opportunity. The demonstration will use WinEEG for analysis and will use the HBI database for age-norm comparisons. Attendees who would like to practice qEEG analyses in class should bring their laptop computer with their HBI comparison key.

**N.B.: Please BYO laptops & download free Win EEG software if possible.**

Time	Schedule
8.30am	Registrations
9.00am	Session 1
10.30am	<i>Morning Tea</i>
11.00am	Session 2
1.00pm	<i>Lunch</i>
2.00pm	Session 3
3.30pm	<i>Afternoon Tea</i>
4.00pm	Session 4
5.30pm	Close

### Presenter, Dr Rivi Sela



Dr. Rivi Sela is the co-founder and CEO of BetterFly Neurofeedback, an innovative cloud-based neurofeedback technology that allows clinicians to treat patients both in the clinic and at the patients' homes.

Rivi pioneered the neurofeedback field in Israel and has trained many neurofeedback clinicians. She founded the BrainGames-Israel clinics ten years ago, and treated hundreds of patients suffering from ADHD, epilepsy, autism, anxiety and depression. Under her supervision, the BrainGames clinics have provided diagnostic evaluations, QEEG recordings and analyses and non-drug interventions to patients of all ages, both children and adults.

Prior to embarking on her neurofeedback career, Rivi served for many years as the Chief Technology Director of the Sheba Hospital, the largest medical centre in Israel, and specialized in developing and implementing clinical technologies, including both hardware and software components. In that framework, she collaborated with leading companies from around the world.



# Biofeedback Certification International Alliance

## - Australia

### **BECOME NEUROFEEDBACK CERTIFIED**

#### **PREREQUISITE PROFESSIONAL STATUS**

1] Candidates are required to have registration in an approved health care or related field (i.e., psychology, nursing, physiotherapy, dentistry, osteopathy, occupational therapy, chiropractic, social work, speech pathology and medicine), Registration and/or qualifications in health care fields, other than those listed, by must be submitted to BCIA-A for approval.

#### **FURTHER EDUCATION IN NEUROFEEDBACK**

2] A minimum of 36 hours of didactic neurofeedback education in a BCIA-approved course covering the *BCIA Blueprint of Knowledge*:

Orientation to Neurofeedback	4 hrs	Patient/Client Assessment	4 hrs
Basic Neurophysiology & Neuroanatomy	4 hrs	Developing Treatment Protocols	6 hrs
Instrumentation & Electronics	4 hrs	Treatment Implementation	6 hrs
Research Evidence for Neurofeedback	2 hrs	Current Trends in Neurofeedback	2 hrs
Psychopharmacological Considerations	2 hrs	Ethical & Professional Conduct	2 hrs

3] Proof of successful completion of two comprehensive university level courses of at least one semester in each of:

- a) Human Anatomy, Physiology *or* Human Biology; **and**
- b) Neuropsychology, Cognitive Neuroscience *or* Psychophysiology

*or alternatives approved by BCIA-A to meet the above two course requirements.*

#### **PRACTICAL SKILLS TRAINING**

4] 25 contact hours of BCIA-A-approved mentoring of clinical neurofeedback skills through the review of 10 sessions of self-regulation, 100 patient/client sessions, 10 case presentations, & review of the Essential Skills List. More than 1 mentor may be used.

5] Successful completion of the certification exam on the “Blueprint of Knowledge” taken at a scheduled exam site, or an online exam with approved proctors.

#### **APPLICATION**

6] Request an application form by emailing [bciaaustralia@gmail.com](mailto:bciaaustralia@gmail.com) with your full name and CV.

# Biofeedback Certification International Alliance - Australia



## Our History

In 2010, the Applied Neuroscience Society of Australasia agreed to the development of an independent body whose role would be to develop and oversee standards for certification within Australasia. It was also agreed that this new organization would be affiliated with The Biofeedback Certification International Alliance. In 2011, Biofeedback Certification International Alliance – Australia Inc (BCIA-A) was first registered in Australia and a Committee was formed. BCIA-A has an affiliate relationship with BCIA.

## Our Mission

BCIA-A certifies individuals who meet education and training standards in Neurofeedback and progressively re-certifies those who satisfy continuing education requirements. In doing so, we strive to protect the welfare of consumers, to provide credibility to Neurofeedback Practitioners and advance in the field of neurofeedback.

## Why Certify?

- BCIA-A through its affiliation with BCIA has international recognition.
- The Applied Neuroscience Society of Australasia (ANSA) recognizes BCIA-A Certification as the standard in the field.
- BCIA-A Certification is recognized by the Association of Applied Psychophysiology and Biofeedback (AAPB), the Biofeedback Foundation of Europe (BFE), & the International Society for Neurofeedback and Research (ISNR) as the standard in the field.
- BCIA-A Certification will be recognized by Neurofeedback Practitioners in Australia.
- BCIA-A Certification provides improved status for the field of Neurofeedback and recognition amongst peers.

BCIA-A Certified Neurofeedback Practitioners are listed on the BCIA-A website, their details available via the *Find a Practitioner* search bar.

## Neurofeedback Recertification

BCIA requires candidates for recertification must complete 48 hours of accredited continuing education related to the blueprint relevant to biofeedback (**to include 3 hours of ethics/professional standards**) and/or the disorder you may be treating with the majority of your hours being neurofeedback-specific. Request an application for Recertification from [bciaaustralia@gmail.com](mailto:bciaaustralia@gmail.com)

## BCIA-A Approved Mentors

Anyone who holds BCIA Neurofeedback Certification may apply to become an approved mentor for candidates in the pursuit of training and supervision toward board certification or recertification. Once approved, the BCIA-A Mentor status remains as long as the mentor holds BCN Certification. Request an application to become a BCIA-A Approved Mentor from [bciaaustralia@gmail.com](mailto:bciaaustralia@gmail.com)

## BCIA-Australia, Certified in Neurofeedback, *current as of 01/07/18*

**\*\*BCIA-A Approved Mentors**

Dana	Adam	Julie	Hill
Annette	Andersen	Robert	Holt
Michelle	Aniftos **	Shelley	Hyman
Mirjana	Askovic **	Daniel	Lane
Nia	Barnes	Kerry	Leahan
Randy	Beck	Tamara	Lorensen
Rosemary	Boon	Martha	Mack
Martin	Brink	Carolyn	Mamo
C. Richard	Clark **	Clarissa	Martinez
Kerryn	Coombe**	Denis	McCarthy
Glen	Davey **	Joanne	McIntyre
Tanya	Donovan	Sejla	Murdoch **
Anne Maree	Eddy	Moshe	Perl **
Eva	Fera	Dianah	Rodrigues**
Renee	Gentle	Alikki	Russell**
Jennifer	Grant**	Mark	Ryan
Joel	Harman**	Nerida	Saunders **
Veronica	Harris	Angelo	Schibeci **
Trix	Harvey**	Diana	Shipman
Steven	Hawkins	Ingrid	Storm
Jon	Hegg **	Yvonne	Town
Timothy	Hill **	Philip	Watts **

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### QBoard - <https://qeegcertificationboard.org/>

Since 1995, the mission of the QEEG Certification Board is to certify individuals who are contributing to the field of Quantitative Electroencephalography as either:

- **Technologist** for clinical, behavioral, and/or educational purposes
- **Diplomate** for clinical, behavioral, and/or educational purposes.

The QEEG Certification Board is neither a licensing agency nor an academic institution. Certification by the board indicates expertise in the understanding of the science underlying the QEEG and its applications.

Since 2010, **QClub** has evolved to offer professional development in QEEG. QClub provides a collegiate avenue for ANSA members and guests to access didactic training, mentoring, informative webinars and QEEG study groups. To learn more about QClub registration, email [michelle@msmh.com.au](mailto:michelle@msmh.com.au)

Since 2016, QClub members have successfully completed requirements to achieve QBoard Certification Diplomate status - QEEGD. These people are now eligible to provide QEEG Board approved mentoring to their peers and supervisees. Congratulations to:

Trevor Brown, VIC	Michelle Gorgula, SA	Michelle Aniftos, QLD
George Mack, VIC	Joel Harman, SA	Matt Leggett, QLD
Moshe Perl, VIC	Tim Hill, SA	Martin Brink, QLD
Cassie Atkinson-Quinton, VIC	Daniel Lane, WA	
Mirjana Askovic, NSW	Natalie Challis, WA	
Dianah Rodrigues, NSW	Philip Watts, WA	
Kerry Leahan, ACT	Francesca Buhagiar, WA	



# 22-26 AUGUST 2019



## GATEWAY TO HEALTH: ANSA CONFERENCE & WORKSHOPS

**Pullman International, 17 Abbott Street, Cairns, AUSTRALIA**

The Applied Neuroscience Society of Australasia is a membership organization comprised of health professionals who are involved in the promotion of better mental health. ANSA promotes education and professional excellence. Neuroscience technology is advancing to provide new insights into the workings of the brain and powerful neurofeedback applications provide direct modulation of brain states.

Research has shown that neurofeedback contributes to improved outcomes for a wide range of conditions including ADHD, autism, anxiety, depression, PTSD, mild traumatic brain injury, learning difficulties and sleep disturbances amongst others. With regular neurofeedback therapy and practice, significant improvements occur 70 – 80% of the time (Hammond et al, 2011).

ANSA members and other professionals interested in applied neuroscience, are invited to participate in our annual conference to be held in Cairns, *gateway to the Great Barrier Reef*.

D. Corydon Hammond (2011) What is Neurofeedback: An Update, *Journal of Neurotherapy*, 15:4, 305-336, DOI: 10.1080/10874208.2011.623090

**Dr Ronald J Swatzyna**



**1-day Workshop, 23<sup>rd</sup> August:**  
Pharmaco-EEG & Neuromodulation

**1-day Workshop, 26<sup>th</sup> August:**  
Mental Health Neurobiomarkers:  
*discovering neurological/physiological causes for symptoms is key for successful treatment.*

**Dave Siever**



**2-day Workshop, 22<sup>nd</sup> & 23<sup>rd</sup> August:**  
Physiology and Clinical Outcomes with  
Brain Stimulation Technologies:  
*Audio-visual Entrainment (AVE),  
Cranio-electro Stimulation (CES) &  
transcranial DC Stimulation (tDCS).*

More speaker  
announcements to come.  
EOIs now open!

**EARLY BIRD  
REGISTRATION AT  
EVENTBRITE**

ANSA Homepage at:

<http://appliedneuroscience.org.au>

**DR. RONALD J. SWATZYNA** is the Director of Electro-Neurophysiology Research and the Director of Neurotherapy at the Tarnow Center in Houston, Texas. For the past 20 years, Dr. Swatzyna has analyzed and treated the most diagnostically challenging cases in both inpatient and outpatient settings. As a researcher, he has presented and/or published over 70 peer-reviewed papers on brain dysfunction, psychotropic medication and other related topics at national and international conferences. In addition, Dr. Swatzyna is a Special Editor for WebmedCentral plus and Clinical EEG and Neuroscience. Prior to his career in mental health, Dr. Swatzyna served in both the Vietnam and the first Gulf War. Finally, his personal battle with a traumatic brain injury and PTSD has motivated him to become a leading expert in brain dysfunction. In addition to a keynote address during the conference weekend, Dr Swatzyna will teach two workshops.

**DAVE SIEVER** graduated in 1978 as an engineering technologist who initially worked to design TMJ Dysfunction related diagnostic equipment and research facilities. Dave had noted anxiety issues in many patients suffering with TMJ dysfunction, prompting him to study biofeedback, which he applied to the patients and then later, Dave design biofeedback devices. In 1984, Dave designed his first audio-visual entrainment (AVE) device – the “Digital Audio-visual Integration Device,” or DAVID1. Through his company, Mind Alive Inc., Dave has been researching and refining AVE technology, specifically for use in relaxation, boosting academic performance and treating anxiety, depression, PMS, ADD, FMS, SAD, pain, cognitive decline and insomnia. Dave also designs Cranio-Electro Stimulation (CES) products and is a leading provider of transcranial DC stimulation (tDCS) and devices. As a result of Dave’s commitment to research, Mind Alive Inc now owns three patents involving neurotechnology. Dave continues to conduct research, perform a quantitative EEG service and designs new products pertaining to enhanced performance and mental wellness. In addition to a keynote address during the conference weekend, Dave Siever will teach a 2-day workshop.

### Pre and Post Conference Workshop Options

#### **2-day Physiology & Clinical Outcomes with Brain Stimulation Technologies Workshop 22 & 23 August 2019**

ANSA MEMBER: \$480; NON-member: \$680

A 2-day didactic training in multi-modal brain stimulation: Much has been discovered about the benefits of brainwave entrainment (BWE) or audio- visual entrainment (AVE), as it is commonly known. AVE affects cerebral blood flow, neurotransmitters, dissociative states and brainwave activity. Research demonstrates the effectiveness of AVE in promoting relaxation, cognition and hypnotic induction, treating ADD, PMS, SAD, PTSD, migraine headache, chronic pain, anxiety, depression and episodic memory. Recent discoveries have shown AVE to be a powerful means of recovery from traumatic brain injuries of a newly discovered type - thalamocortical disconnect. Interest in cranio-electro stimulation (CES) was initiated by Robinovitch, who, in 1914 made the first claim for electrical treatment of insomnia. Most of the 200+ studies have shown CES as a reliable method to reduce anxiety, depression, pain, and to improve sleep and cognition function. Transcranial DC Stimulation (tDCS) has been extensively studied. A major advantage of tDCS is that it may be applied directly over an area of concern where the cortical activity on the brain may be enhanced or suppressed, much like neurofeedback. 1000+ studies on tDCS, including 100 on stroke rehabilitation, have been published.

#### **1-day Pharmaco-EEG & Neuromodulation Workshop, Friday 23/08/19**

ANSA MEMBER: \$280; NON-member: \$380

Dr Swatzyna has used electroencephalography (EEG) and quantitative (qEEG) data to assist psychiatrists in medication selection and titration. He also holds the distinction of being the first in the US to integrate Pharmaco-EEG into private practice. For his publications and presentation in Pharmaco- EEG, he was admitted as an Affiliate Individual member into the World Psychiatric Association and is a committee member of the Psychiatric Electrophysiology Section. As a researcher, he has presented and/or published 70 peer-reviewed papers on brain dysfunction, psychotropic medication and other related topics.

#### **1-day Mental Health Neurobiomarkers Workshop, Monday 26/08/19**

ANSA MEMBER: \$280; NON-member: \$380

Mental health issues are diagnosed based on presenting symptoms, however, we now know that there can be many causes for those symptoms and the process of diagnosis has been called into question by the National Institute of Mental Health. In 2012, the Research Domain Criteria (RDoC) Project was instituted to generate scientific investigations to discover the links between biomarkers and the presenting psychiatric symptoms. In 2014 a study, using EEG and qEEG, identified four primary neuro-biomarkers that explained most psychiatric medication failure. In 2015 another study found only a 6.25% association between the diagnosis assigned and the neuro-biomarkers responsible for their symptoms. This data provides valuable information for medication selection and titration, treatment selection, and recommendations for additional testing referrals e.g., imaging, lab work, sleep studies. The treatment of mental health issues can now be based on science initiated by clinical research.

#### **EARLY BIRD CONFERENCE WEEKEND, 24th & 25th August 2019**

Pre-program launch special for all registrants - **\$480**

This Conference Early Bird Registration rate represents fantastic value for 2 days of professional development to include keynote presentations by Ron Swatzyna and Dave Siever. Many other presenters are yet to be included in the program. This ticket price excludes any social events, yet to be announced. This ticket option will expire when the full program is launched so get in early!!

*Member and Non-Member Conference Weekend Registration regular rates will be \$580 and \$680.*

*Register at: <https://www.eventbrite.com.au/e/2019-ansa-conference-workshops-gateway-to-health-tickets-48189068802>*



13<sup>th</sup> ANSA Annual Conference, 22 - 26 August, 2019  
Pullman Cairns International

## CALL FOR CONTRIBUTORS

Neurofeedback researchers and practitioners, and other professionals interested in applied neuroscience, are cordially invited to contribute the annual workshops and conference of the Applied Neuroscience Society of Australasia to be held in Cairns, gateway to the Great Barrier Reef in far north Queensland, Australia.

You are cordially invited to submit your proposal/s for participation in our 2019 [Applied Neuroscience Society of Australasia](#) conference. We have a limited number of positions for keynote lectures (90 minutes or 45 minutes), case presentations (20 minutes presentation or poster presentation) and/or masterclasses (90 minutes, half-day).

Please duplicate this application form to submit multiple proposals. *Return your completed submission to Conference Secretary, Michelle Aniftos via email [michelle@msmh.com.au](mailto:michelle@msmh.com.au)*

***SUBMISSIONS DUE DATE: 30 October 2018 (earlier EOI is appreciated)***

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I \_\_\_\_\_ (presenter name) confirm that I am available, if offered the opportunity, to participate in the ANSA Conference from 22 - 26 August, 2019 in CAIRNS, Australia.

Signed:

Date:

<b>Section One: Presenter details</b>	
First Presenter, Last Name	First Name
Title/qualifications	
Organisation/s	
Contact address	
Phone number & codes	
Preferred email address	
Biography	
Photograph	<i>Please insert or attach, as preferred</i>

## Case Study Submissions

The Conference Committee of the Applied Neuroscience Society of Australasia ANSA members and colleagues to share a single case study on Pre/post EEG Assessment &/or Course of Neuromodulation. We hope to hear from neuro-practitioners willing to share a brief case study regarding a client and their journey through EEG-assessment and EEG-guided intervention.

The cases must be prepared for one or both of the following presentation modes:

1. AO Poster for Exhibition (may not exceed 1m X 1.5m maximum size) including an introduction and aim, procedure, results and discussion/conclusion; and/or
2. Brief Presentation (maximum 6 slides/20 minutes) including:

Introduction/Aim: describe the **Context** of the case (clarify the research and/or clinical practice).

Procedure: describe the **Case History & Treatment Plan** (onset and course of symptoms, results of diagnostic tests and procedures, including QEEG analysis, selected intervention, etc.)

Results: Present the results of psychobiological findings.

Conclusions: Discuss findings in light of the client and contribution to EEG research and practice.

Complete the template to submit your expression of interest to [michelle@msmh.com.au](mailto:michelle@msmh.com.au) (Michelle Aniftos, Conference Chair) before 30 October 2018. The conference committee will notify the selected presenters before the 31 January 2019. N.B. All presenters must **be registered delegates** of the 2019 ANSA Conference.

<b>SHOWCASE SUBMISSION</b>	
Last name	
First name	
Professional title/ qualifications	
Current position/s	
Organisation/s	
Contact address	
Phone number & codes	
Preferred email address	
Focus of research/practice	
Biography	
Photograph	<i>Please attach to submission</i>
Title of proposed presentation	
Mode of Presentation: [ ] Poster <b>OR</b> [ ] 20 minute case study presentation + 10mins Q&A	
Abstract: (must include introduction and aim, procedure, results and discussion/conclusion)	

## Masterclass, Keynote Submissions

First Presenter, Last Name		First Name	
Title/qualifications			
Organisation/s			
Contact address			
Phone number & codes			
Preferred email address			
Biography			
Photograph	<i>Please insert or attach, as preferred</i>		
Title of Presentation			
Mode : Keynote Lecture > [ ] 45mins or [ ] 90mins; Masterclass/Practicum > [ ] 90min [ ] 1/2 day			
Abstract:			
What aspects of applied neuroscience will be addressed?			
Will the session include case examples or experiential learning for delegates?			
What is the significance of this work for researchers and/or practitioners?			
To what extent is your work evidence-based or well-regarded in your field?			
Media Statement: Please provide a short statement we might use for the purposes of conference promotion.			



Finally, thanks to Audio Visual Archives for recording our conference presentations and making these available on line – **free** to our ANSA members.



Audio Visual Archives has been proud to publish Psyche Visual and Sexual Health Video for more than ten years. We have been recording and publishing lectures and presentations from seminars and conferences around the world to build a library of over 2,500 fascinating videos of the field's greatest minds for our subscribers to view at their leisure.

If you would like to subscribe please visit  
[www.psychevisual.com](http://www.psychevisual.com) or [www.sexualhealthvisual.com](http://www.sexualhealthvisual.com) and sign up.

We are also very excited to announce that we are redeveloping and modernising and will soon be relaunching as Owl Talks. Finding our new home will be as simple as going to the old address and you will be taken there automatically. Owl Talks will have the same material but in a new format and over time, with a wider scope, covering a broader range of topics and specialist book sales.

We hope to see you there soon.



