



ANSA

APPLIED NEUROSCIENCE
SOCIETY OF AUSTRALASIA

11th ANSA Annual Conference & Workshops

Hotel Kurrajong,
8 National Circuit, Barton, Canberra



Biofeedback for the Mind and Body: Windows for Regulation

Conference Handbook

25 – 29 August 2017

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, many 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, discord 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. We thank our fellow member, Leon Petchkovsky, who facilitated ANSA’s access to this artwork.



As **Conference Secretary**, I want to welcome you all to Canberra and to this exciting conference program! My involvement with ANSA began when I attended the 2nd Annual Conference in Sydney in 2008. Prior to that I was enjoying my early years of exploring neurofeedback. I was introduced to the world of applied neuroscience by Rob Buschkens and Moshe Perl in 2004 at an EEGer Spectrum course in beautiful Cairns. I have since been educated and inspired by Jay Gunkelman, Juri Kropotov, Martijn Arns, Leslie Sherlin, Cynthia Kerson, Richard Clark, Tom Collura, Bob Thatcher, Elena Labkovsky, and many others whose work has been showcased in Australia by ANSA, the Brain Mind & Memory Institute, and the APS Neurofeedback Interest Group.



Over the past ten years, I have been a very active member of ANSA, predominantly promoting professional development through the annual conferences, and the promotion of Board Certification in neurofeedback and in QEEG. You can read more about BCIA-A and QClub elsewhere in this Conference Handbook. My greatest pleasure has been derived from the collective efforts of ANSA members and friends who contribute in so many ways to progress our work. Thank you to every one of you for your input, especially to my colleagues on the ANSA Executive Committee. Your support and your work is much appreciated.

Michelle Aniftos, ANSA President 2017 - 2019

As President-elect, there’s no escaping me (or escape for me) for the next two years. I really want to know from members how best to serve you. What do you expect of your membership organisation? What should our key activities be for the next two years? How can I work to achieve your expectations? I welcome your direct contact via my email michelle@msmh.com.au

Enjoy your Conference!

Tell your colleagues about our GREAT program; &

Register early for ANSA 2018!! (see the back page for more details about that event)

President's Welcome to the 11th Annual ANSA Conference

Acknowledgement of Country

We thank the Ngunnawal for allowing us to walk their land. 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.

Our meeting is here, in this place.

We welcome our members to Canberra and thank you for bringing you energy and enthusiasm with you.

We also welcome our sponsors and thank them very much for their generosity in supporting this conference. They strengthen us. Please visit their tables, talk with them and explore their offerings.

We especially extend our warm welcome to our friends from across the waters that have come to teach and learn with us. The tyranny of distance has not deterred you. We are so honoured by your presence *down under*.



Neuromodulation as a science is expanding at a rapid pace and its utility in many fields of endeavour is becoming more evident. This yields new and challenging opportunities for us. A rich array and what may appear as divergent pathways towards self-regulation are being presented to us. We need to keep pace with what is emerging, critique its potential, and integrate valuable new knowledge.

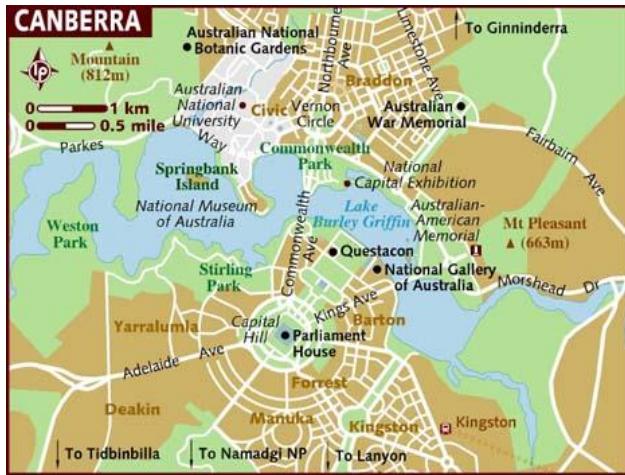
The overarching theme for this conference is **Biofeedback for the Mind and the Body: Windows for Regulation**. This focus seeks to refresh in our minds the value of integrating biofeedback into our practices. Biofeedback has a rich history. This is timely that story is better told here. We hope you will leave here encouraged the more to utilise biofeedback techniques in your practices.

Our numbers grow each year and it delightful to see this many of you make the journey to this place. These meetings expand our knowledge and also strengthen our bonds. Keeping our minds open as well as our hearts will ensure we continue to be an inclusive and inquisitive mob. Please look out for each other over this weekend and we will enjoy this gathering the more.

Jon Hegg, ANSA President 2015 - 2017

Welcome to Canberra:

Australia's National Capital



PARLIAMENT HOUSE

Parliament House is the meeting place of Australian federal politics. Take a free guided tour into the House of Representatives and Senate chambers, view historic documents including the Magna Carta.

NATIONAL PORTRAIT GALLERY

Australia's premier collection of portrait paintings, sculpture and photography. View portraits of prominent Australians important in the country's past and present.

THE NATIONAL GALLERY OF AUSTRALIA

More than 100,000 pieces of world-class artwork line the walls and floors of The National Gallery. Highlights include Sidney Nolan's Ned Kelly series and the Reimagining Artists exhibition The Aboriginal Memorial.

QUESTACON

See innovation come to life. Feel the force of an earthquake and let lightning spark your imagination at the Awesome Earth exhibition and challenge your mind with over 60 hands on exhibits at Perception Deception.

SEGLIDERIDE

Cruise your way around Lake Burley Griffin taking in all the sights on your very own Segway! Fully comprehensive training, your Segway and a helmet is provided in the package

NATIONAL MUSEUM OF AUSTRALIA

This museum explores Australia's social history. The museum features three themes; Australian society and history; Aboriginal Australia; and, people's interaction with the environment.

THE AUSTRALIAN WAR MEMORIAL

A must-see for anyone visiting, passing through or living in Canberra. The site includes a memorial and museum, a very unique pairing unlike any other worldwide.

NATIONAL ZOO & AQUARIUM

Just five minutes from the CBD, The National Zoo and Aquarium is home to a variety of native and exotic animals, plus, it's two attractions in one! Famed for its incredible experiences including *Meet the Cheetah*.

Workshops & Conference Schedule

Friday	Saturday	Sunday	Monday	Tuesday
08.15-08:45 Registration	08.15-08:45 Registration	08.15-08:45 Registration	08.00-08:30 Registration	08.00-08:30 Registration
09.00 – Workshop Cross-Frequency Coupling as a Unifying Pathophysiology for Brain Disorders Treated by Neurofeedback and Brain Stimulation Dirk de Ridder, Jay Gunkelman	08:45 Welcome by Jon Hegg ANSA President 2015-2017 09.00, KEYNOTE Dr Dirk de Ridder Working Mechanisms of Non-invasive Neuromodulation	8:45 Welcome Michelle Aniftos ANSA President 2017-2019 09.00, KEYNOTE Dr Fred Shaffer Neuroscience of Addiction	08.30 – 10.30 2-day Workshop Fred Shaffer BCIA-accredited HRV Biofeedback Course	08.30 – 10.30 2-day Workshop Fred Shaffer BCIA-accredited HRV Biofeedback Course
10.30-10.50 Break	10.30-10.50 Break	10.30-10.50 Break	10.30-10.50 Break	10.30-10.50 Break
11.00-13.00 Workshop continues	11.00, Tanami Sonter Working with Peripheral Biofeedback in the Treatment of Complex Refugee Trauma 12.15 - Silver Sponsor Address: EEGer Education & Research	11.00, Trevor Brown Neurofeedback for Performance Enhancement 12.15- Silver Sponsor Address: neuroCare	11.00-13.00 Workshop continues	11.00-13.00 Workshop continues
13:00 – 13:50 Lunch	12.30-13.20 Lunch, Sponsors & Exhibitors BCIA-A AGM	12.30-13.20 Lunch, Sponsors & Exhibitors	13:00 – 13:50 Lunch	13:00 – 13:50 Lunch
14:00 – 15:30 workshop continues	13:30, KEYNOTE Jay Gunkelman Treatment failure in psychiatry: EEG predictors and optimizing outcomes	13.30, KEYNOTE Leslie Sherlin Finding Flow States	14:00 – 15:30 workshop continues	14:00 – 15:30 workshop continues
15.30 - 15.50 Break				
16.00-17.30 workshop concludes	15:00 - 15.20 Break	15:00 - 15.20 Break (3-6pm BCIA Neurofeedback Certification Exam)	15.30 - 15.50 Break	15.30 - 15.50 Break
17:30: Registration Desk Open	15:30: ANSA AGM 16:30: APS NFG IG AGM	15:30: Student Presentations 17:00- Conference Close	16.00-17.30 workshop concludes	16.00-17.30 workshop concludes
18:00: Conference Welcome Reception Gold Sponsor: Medilink Australia Artists: Poetry in Motion	18:30: Gala Dinner Artist: Matt Dent	18:00 – 21:00 ANSA Board – Dinner Meeting	17:30 – 18.30 Happy Hour	PROGRAM END

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.

GOLD Sponsor – Medilink

Medilink Welcome Reception, 6-8pm on Friday night 25th August at Hotel Kurrajong

Entertainment by Poetry in Motion

*** Clinical EEG**

*** Research EEG**

*** Neuro Navigation**

ANSA APPLIED NEUROSCIENCE SOCIETY OF AUSTRALASIA

August 2017

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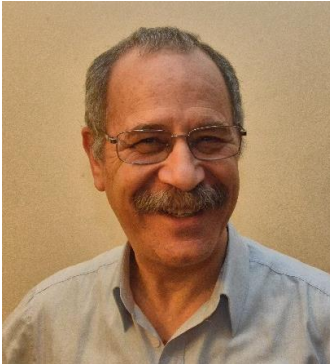
- Neuro diagnostics
- Neuro modulation
- Neuro stimulation.
- Neuro-imaging
- Neuro navigation

Applications include EEG, NEURO NAVIGATION, FINRS, TMS technology.

Contact: sales@medilinkaustralia.com

SILVER Sponsor – EEG Education & Research

Delegate Address – 12.15pm Saturday 26th August



Dr Moshe Perl

Clinical and Forensic Psychologist; BCIA certified neurofeedback practitioner and mentor, QEEG diplomate teacher and mentor; ANSA Fellow; past President of ANSA.

With over 15 years of teaching experience, and over 30 years of clinical experience, Dr Perl is considered to be one of the foremost neurofeedback educators in Australia.

Our Silver Sponsor representative, Moshe Perl, will address the conference prior to lunch on Saturday so that you can hear about the current initiatives of EEG Education & Research, and the Neurofeedback services that Dr Perl and his team provide:

***New* Online Services**

- Online group supervision
- Webinars
- Hosting of Australia-based online forums for neurofeedback and EEG

Training:

- Four-day entry level neurofeedback course – BCIA accredited
- *New* Two-day EEGer software practicum
- Neurofeedback workshops (beginner to advanced)
- EEG and QEEG courses (including WinEEG and NeuroGuide) – QEEG Board approved
- Alpha-Theta eyes closed training
- Other topics including specific LORETA full cap training and the TOVA

Equipment:

- Exclusive EEG Education and Research (EEGer) representative in Australia
- Sales and service (Software, *new* games, amplifiers, consumables)
- Technical support

Professional supervision and mentoring in all areas of neurofeedback, EEG, and QEEG

Active clinical practice in neurofeedback

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Why SCP Training?

- Clinically evaluated and standardized protocols
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- Effective training for both children and adults
- Efficacy proven in large multi-centre study

Why THERAPRAX?

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Take part in a unique 2-day training event on Slow Cortical Potentials theory and application, hosted by neuroCare.

To find out more visit
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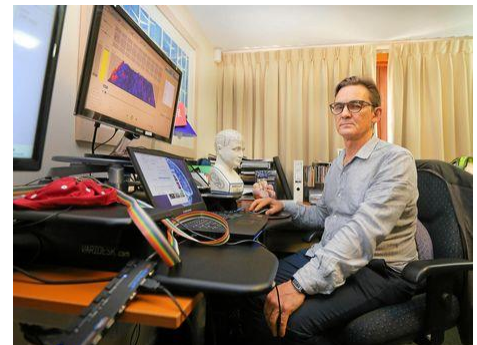
or call
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Bronze Sponsor – Brain Mind & Memory Institute

Brain Mind & Memory Institute (BMMI) is a private foundation established to promote application of neuroscience based methods in mental and brain 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:

- ✓ **Supports Research & Development of Neurotechnologies** within Australia and internationally
- ✓ **Contributes to improving Brain Diagnostics** in clinical practice using **qEEG** (Quantitative EEG) and **ERPs** (Event Related Potentials) techniques. We have established an extended network of experts around Australia and overseas who are actively implementing Neuromarkers in clinical practice
- ✓ **Contributes to the implementation of Neuromodulation and Neuroplasticity** based modalities into clinical practice. These include non-invasive brain training methods such as EEG-Neurofeedback or brain-computer interface, transcranial direct current stimulation, computerised cognitive training
- ✓ **Supplies a range of courses and equipment:**
 - Mitsar EEG amplifiers
 - WinEEG software
 - Neuroguide Software Solutions
 - Thought Technology equipment and software
 - EEG lab suppliers: caps, gels, syringes,
 - Neurofeedback, QEEG and ERPs Training workshops



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 for its unique software, *WinEEG*, developed at Human Brain Institute in St Petersburg Russia. The system allows the user to record high quality EEG and Event Related Potentials, for analysis using ICA (independent component analysis) method and compare to the HBIMed normative database.

Our Brain Diagnostic on-line store - www.braindiagnostics.com.au - will make it easy to order equipment, training and supplies at the most competitive prices. Join us at www.braininstitute.com.au and receive access to training videos and great member discounts.

More details upon request by email to: info@mindmatters.com.au



**Brain Mind &
Memory Institute**

Bronze Sponsor – 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 | www.bio-medical.com

Satchel Advertiser – OchsLabs Australia



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We provide support to well over 1200 LENS practitioners across 24 countries. Our design team has created a software user interface that we call *smart technology*: intuitive, easy to use, and incredibly effective.

The LENS is a neurofeedback system certified as such by the FDA (USA Regulatory Agency).

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The advertisement for LENSSware3™ features a woman in a white tank top and blue shorts joyfully throwing red petals in a field of green grass and yellow flowers under a clear blue sky. The text 'LENSSware3™' is prominently displayed at the top left, with the tagline 'The Leader in Neurofeedback Software' below it. A green circular graphic on the right contains the OchsLabs logo. A list of symptoms is provided, including PTSD, ADHD/ADD, TBI, Seizures, Bipolar, and Autistic Spectrum. The phone number '+61 3 8288 1744' is displayed at the bottom right. A small disclaimer at the bottom left states: '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!'.



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 \(BCIA - A\)](http://www.bciaaustralia.com) - 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/) - <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.

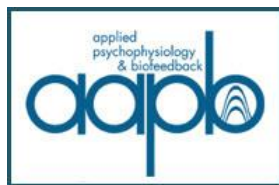
A short history of Pacific Rim Chapter of ISNR

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 2017 marks the 11th National Conference of ANSA, this is the **20th 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

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

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

Friday Preconference Workshop Schedule

08.15-08:45 Registration	13:00-13:50 Lunch
09.00-10.30 Workshop session 1	14:00- 15:30 Workshop session 3
10.30-10.50 Break	15.30-15.50 Break
11.00-13.00 Workshop session 2	16.00-17.30 Workshop final session

18:00: **Conference Welcome Reception**, Gold Sponsor: Medilink Australia
Artists: Poetry in Motion (Kate Ord & Paul Marsh)

Cross-Frequency Coupling as a Unifying Pathophysiology for Brain Disorders Treated by Neurofeedback and Brain Stimulation

Dirk de Ridder & Jay Gunkelman (*with apologies from Theresia Stoeckl*)

The brain can be considered as a 'complex adaptive system', analogous to the internet, economy or ant colonies, which permits us to constantly adjust to an ever changing environment, increasing our chances for survival and procreation. The brain functions as a Bayesian prediction machine, updating its predictions by active exploration of the environment through the senses. The information gathered in the environment results in a representation in the brain in the form of a perceptual pattern or network. Symptoms and diseases can be seen as maladaptive perceptions, thoughts or actions as a consequence of dysfunctional but stable networks (=attractor state). These pathological networks can be modulated by medication, but also by non-invasive and invasive neuromodulation.

The workshop explains how based on this theory neurofeedback, infraslow network (sLORETA) neurofeedback, transcranial magnetic stimulation, and transcranial electrical stimulation (tDCS, tACS, tRNS) might influence these maladaptive symptom-generating networks. After this workshop you should be able to:

- Understand how symptoms & diseases can be explained as emergent properties from maladaptive brain networks
- How to evaluate these networks by analyzing an EEG (raw data, sLORETA, resting state and evoked brain activity, functional and effective connectivity)
- How neurofeedback exerts its effect on these networks
- 4. How infraslow (<0.1 Hz) network neurofeedback works
- How brain stimulation influences these maladaptive networks.

About the Presenters

Dirk de Ridder, Professor, Neurological Foundation Chair of Neurosurgery, Dunedin School of Medicine, University of Otago, New Zealand.



Founder and director of the BRAI²N (Brain Research consortium for Advanced, Innovative & Interdisciplinary Neuromodulation), Dirk's main interest is the understanding and treatment of phantom perceptions (sound, pain), especially by use of functional imaging navigated non-invasive (TMS, tDCS, tACS, tRNS, LORETA neurofeedback) and invasive (implants) neuromodulation techniques. He has developed "burst" and "noise" stimulation as novel stimulation designs for implants, and is working on other stimulation designs. Dirk has published 35 book chapters, co-edited the Textbook of Tinnitus, and has authored/co-authored 221 papers (199 Pubmed listed). He is reviewer for more than 60 journals.

Jay Gunkelman, QEEG Diplomat, is recognized as one of the leaders in the field of EEG and QEEG, and has processed over 500,000 EEGs since 1972. He has served as president of the iSNR, as well as a board member and treasurer of the AAPB and is a past-president of the Biofeedback Society of California. Jay was the first EEG technologist to be certified in QEEG (1996) and was granted Diplomat status in 2002. He has conducted, published or participated in hundreds of research papers, articles, books and meetings internationally. He lectures internationally on EEG/QEEG on the topic of QEEG and phenotype identification of neurological disorders. He has co-authored the text- book on EEG artifacting (2001). Jay remains busy with projects related to his seminal paper on EEG endophenotypes (2005, Clinical Electroencephalography). He is co-founder and Chief Science Officer of Brain Science International.



Saturday Conference Schedule

08.15-08:45 Registration

08:45 Welcome by **Jon Hegg** ANSA President

09.00 KEYNOTE - Dr Dirk de Ridder

Working Mechanisms of Non-invasive Neuromodulation

The brain can be seen as a complex adaptive system (CAS), analogous to ant colonies, economy or the internet. CAS are characterised by emergence, in which an emergent property of a CAS is one that is not a property of any component of that system. It is the very specific connections between the components of a CAS that generate emergent properties. Brain connections come in three forms: structural connectivity, functional connectivity and effective connectivity. Neuroplasticity is the capacity of the nervous system to modify its structural and functional organization to a changing environment, thereby changing its emergent properties. As such brain disorders can be considered emergent properties of altered brain connectivity.

All neuromodulation techniques have in common that they change the functional and effective connectivity of the brain, thereby changing the emergent properties (e.g. brain disorder) of the neuromodulated networks. The future of neuromodulation will be based on a better understanding of how these network changes can be controlled by using better neuroimaging techniques as well as novel stimulation devices.

10.30-10.50 Break

11.00 LECTURE - Tanami Sonter

Working with Peripheral Biofeedback in the Treatment of Complex Refugee Trauma

STARTTS' service provision philosophy is predicated on a bio-psycho-social framework that incorporates a large range of clinical and psycho-social interventions informed by the latest advances in neuroscience and evidence based practice in relevant fields. In 2007 STARTTS established a Neurofeedback program. This work is now receiving international recognition. In 2015 STARTTS began to further enhance its current service portfolio by developing biofeedback-based (BFB) assessments and treatments. Working with Thought Technology's Biograph Infinity suite, STARTTS has developed bespoke clinician-client user interface and a comprehensive set of data display/reporting screens as well as a wide range of clinical resources, including questionnaires, report templates, sleep and headache diaries, etc.

Biofeedback-based services are offered to STARTTS' clients via three different referral pathways:

- i) 'stand-alone' stress assessment and report,
- ii) co-therapy - working interactively with both a BFB and general counsellor, or
- iii) integrated BFB and general trauma therapy with the BFB counsellor.

This flexible approach enables STARTTS to be highly responsive to the particular needs of each client. STARTTS' use of biofeedback in the field of refugee trauma is ground-breaking, and its extensive clinical expertise combined with the implementation of this clinical modality aims to inform BFB-, refugee- and trauma-specific areas of research and practice in ways that will enhance client care and outcomes.

Tanami Sonter is a provisional psychologist and biofeedback practitioner working at the NSW Service for the Treatment and Rehabilitation of Torture and Trauma Survivors (STARTTS). She completed her honours degree in psychology at the



University of Sydney in 2013. Her thesis proposed a paradigm for the research of ostracism, and Tanami developed a secondary specialisation in health psychology and neuroscience. Her research interests and clinical skills learned in the field of occupational rehabilitation, are valued by the STARTTS' Neurofeedback team where Tanami provides EEGs, biofeedback-based stress assessments, biofeedback-based treatment and counselling for refugee trauma clients. Currently she is implementing and evaluating a new biofeedback clinic with STARTTS' vision to establish the world's first biofeedback clinic for the assessment and treatment of refugee trauma, and to generate findings that will contribute to clinical practice within related fields of expertise.

Saturday Conference Schedule, *continued*

12.15- Silver Sponsor Address: **EEGer Education & Research, Dr Moshe Perl**



12.30-13.20 Lunch, Sponsors & Exhibitors (**BCIA-A AGM working lunch**)

13:30 KEYNOTE - Jay Gunkelman

Treatment failure in psychiatry: EEG predictors and optimizing outcomes

Four EEG features predict medication failure, and the use of EEG phenotypes optimizes outcomes. Paroxysmal findings, beta spindling, focal changes and low voltage slow EEGs have been identified as factors which predict failure in standard symptom based psychiatric interventions. These EEG phenotypes also predict the correct clinical responses, and the data showing optimized treatment outcomes will be shared. Currently in- press findings regarding the treatment outcomes in non-epileptic patients with epileptiform EEGs being treated with anticonvulsants will be presented. Case studies with NF in epilepsy will also be shared.

15:00 - 15.20 Break

15:30 ANSA AGM

Order of Business

1. Attendees & Apologies
2. Tabling of Proxies
3. Minutes of the 2016 AGM
4. Matters arising from the AGM Minutes 2016
5. Tabling of Reports
6. Vote of thanks to outgoing President
7. Welcome to the new President (former President-elect), Michelle Aniftos.
8. Election of Office Bearers: President-Elect, Secretary, Treasurer, Public Officer, & Committee Members
9. Nomination of Signatories
10. Statement of Intention report to Department of Fair Trading & to the Australian Charities and Not-For-Profit Commission, e.g.
 - notification of change of office bearers
 - notify ANSA postal address & Secretary's residential address
 - notify of modification to the association rules (constitution)
11. OTHER BUSINESS:
 - a) Fellowships & Honorary Memberships – Proposals
 - b) Professional Development/Exchange opportunities
 - c) Voting on proposed changes to the Constitution – Terry Eichmann & Michelle Aniftos

16:30 APS NFG IG AGM

Order of Business

1. Welcome by the Chair
2. Attendees & Apologies
3. Tabling of Minutes of last AGM – see Appendix 1
4. Matters arising from the Minutes 2016
5. Convener's Report
6. Financial Report
7. Election of Office Bearers
8. Other Business

18:30 **Conference Dinner, Artist: Matt Dent**

Sunday Conference Schedule

08.15-08:45 Registration

08:45 Welcome by **Michelle Aniftos ANSA President**

09.00, KEYNOTE - Dr Fred Shaffer

Neuroscience of Addiction

This keynote address will review important lessons from the neuroscience of addiction for professionals who treat addiction and compulsive behaviour. We will examine how addicting drugs acutely increase dopamine activity, but chronically decrease enjoyment of reinforcers. We will learn how chronic drug abuse impairs the prefrontal cortex and sensitizes the brain to drugs, drug cues, and stressors. *We will consider the factors that increase the vulnerability of elite athletes to addiction.* Finally, we will explore the implications of these findings for biofeedback and neurofeedback treatment of addiction.

Attendees will be able to:

1. describe the roles of major brain structures in addiction.
2. explain how abused drugs change brain reward circuits.
3. discuss how chronic drug use impairs executive functions and increases drug craving.
4. explain the addiction risks faced by elite athletes.
5. show how biofeedback and neurofeedback can help treat addiction.

Fredric Shaffer PhD is a biological psychologist and Professor of Psychology and former Department Chair at Truman State University, where he has taught since 1975 and has served as Director of Truman's Center for Applied Psychophysiology since 1977.



In 2008, he received the Walker and Doris Allen Fellowship for Faculty Excellence. In 2013, he received the Truman State University Outstanding Research Mentor of the Year award. Dr Shaffer was the principal co-editor of *Evidence-Based Practice in Biofeedback and Neurofeedback* (3rd ed.) and authored 12 of its chapters. He was a co-editor with Donald Moss of *Foundations of Heart Rate Variability Biofeedback: A Book of Readings*. He co-authored with Mark S. Schwartz a chapter on entering the field and assuring competence in *Biofeedback: A Practitioner's Guide* (4th ed.). He co-authored with Donald Moss, a chapter on biofeedback in the *Textbook of*

Complementary and Alternative Medicine (2nd ed.). He co-authored with Rollin McCraty and Christopher Zerr, the *Frontiers in Psychology* review article "A healthy heart is not a metronome: An integrative review of the heart's anatomy and heart rate variability."

Dr Shaffer is a contributing editor for the journal *Applied Psychophysiology and Biofeedback*. He is a BCIA-accredited educator for Biofeedback, HRV Biofeedback, Human Physiology, Physiological Psychology, and Psychopharmacology. His current research focuses on techniques to increase heart rate variability biofeedback. Dr Shaffer is a BCIA Senior Diplomate in Biofeedback. Dr Shaffer is the Chair of the Biofeedback Certification International Alliance (BCIA), director of its Biofeedback and HRV Biofeedback Task Forces, and member of its Neurofeedback Task Force, and Treasurer for the Association for Applied Psychophysiology and Biofeedback (AAPB).

10.30-10.50 Break

Sunday Conference Schedule, *continued*

11.00, SPEAKER - Trevor Brown

Neurofeedback for Performance Enhancement

Activation of a single cortical network may sometimes correspond to a simple psychological process; however, in many cases, multiple networks must interact to implement higher-order psychological meta-skills. Separate research with elite table tennis players and a group of emerging educational leaders identified nodes linking cortical networks, related to high performance on visual-spatial attention and emotional intelligence respectively. Neuromodulation via sLORETA Neurofeedback achieved significant performance enhancement of these psychological meta-skills after only 10-15 sessions. Results suggest the potential for use of this methodology to enhance skill development across a wide range of performance domains.

Trevor Brown, Director at Positive Brain Training, a QEEG analyst/NFB practitioner.



- Ph.D in QEEG, ERP - Source localisation & Neurofeedback with elite table tennis Players
- Completed QEEG-Diplomat certification in 2016.
- Olympic Table Tennis athlete (Athens, 2004)
- Founded Positive Brain Training, complementing a leadership skills program with performance enhancement NFB.
- Currently conducting QEEG analysis and co-managing Neurofeedback program for Listen And Learn Centre, Melbourne.

12.15 Silver Sponsor Address: **neuroCare**



12.30-13.20 Lunch, Sponsors & Exhibitors

13.30, KEYNOTE - Leslie Sherlin

Finding Flow States

Although having been defined as early as 1975 by Csíkszentmihályi, flow states continue to peak the interest and the aspiration of athletes and artists alike. The constructs defining flow have been reasonably well-agreed upon but the ingredients required and recipe for achieving the state are still forming. Research has indicated a significant role played by neuronal activity. These findings will be reviewed with a practical conversation on the opportunities for utilizing QEEG and neurofeedback in increasing or priming the brain for achieving the flow state. Anecdotal and preliminary evidence of flow state neurofeedback training will be shared with a practical conversation on the high and the low of experiencing flow.

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.

Sunday Conference Schedule, *continued*

15:00 - 15:20 Break (3-6pm BCIA Neurofeedback Certification Exam)

15:30 Student Presentations

Dr Sima Sadeghi

Does Behavioural Inhibition System dysfunction account for Attention-Deficit/Hyperactivity Disorder?

ADHD is a common childhood disorder that has been classified into three subtypes (ADHD-I, ADHD-H and ADHD-C) but may involve a spectrum of symptoms. Deficits in executive functions have been considered to be a major source of the disability associated with ADHD. Impairments in behavioural inhibition fundamental to executive functions have been hypothesized as the core of ADHD symptoms (Barkley, 1997b; Quay, 1997). This thesis tests whether ADHD deficits derive from dysfunction of Gray's Behavioural Inhibition System (BIS). It does so by assessing the differences between ADHD-I, ADHD-C and control groups in their Goal Conflict Specific Rhythmicity (GCSR), a biomarker of BIS function (McNaughton, 2014; McNaughton, et. al, 2013).

Two studies were undertaken, one in New Zealand (initial study) and one in Iran (main study). They demonstrated that ADHD-C showed GCSR activity, at the right frontal site F8, similar to that in control groups. However, ADHD-I showed less GCSR activity than controls – consistent with BIS dysfunction. ADHD-I symptoms such as low levels of attention and arousal could be due to BIS under activity. However, hyperactivity and impulsivity symptoms in ADHD-C cannot be explained by BIS dysfunction as there was no evidence of abnormal BIS activity for ADHD-C in any of the studies. Behavioural Approach System (BAS) over activity may better explain ADHD-C symptoms by producing a stronger tendency to approach and act. Given that ADHD-I differs from ADHD-C it follows that ADHD as a whole cannot be seen as a single entity, although both ADHD-I and ADHD-C may share a common factor. The distribution of GCSR, and other measures for the three diagnostic groups overlapped fairly strongly – supporting the concept of a multidimensional spectrum for ADHD symptoms rather than categorical divisions.

ADHD-I and ADHD-C varied from the control to some extent in terms of the accuracy of responses and SSRTs. However, there was no difference between ADHD-I and ADHD-C regarding their behavioural outputs in the SST. Longer SSRT's for ADHD participants has been interpreted as action stopping problems that involves a different, anxiolytic insensitive, neural system from behavioural inhibition. This finding supports the idea of a common factor in ADHD-I and ADHD-C.

Overall, both ADHD-I and ADHD-C share action stopping problems reflected by SSRTs. BAS abnormality might produce some ADHD-C symptoms. BIS abnormality might produce some ADHD-I symptoms; this thesis shows that BIS deficiencies are not sufficient to account for all cases of ADHD as hypothesized by Quay (1997).

Brain, Mind & Consciousness in Neurodevelopment

2018 12th ANSA Annual Conference Announcement

Keynote Speakers to include: Richard Clark, David Cantor, Len Ochs, Randy Beck, Aamir Malik, Leslie Sherlin, Jacqueline Saad & showcasing peer presentations from ANSA members practising in QEEG & Neurofeedback. Call for Presenters now open!

Sunday Conference Schedule, *continued*

15:30 Student Presentations, *continued*

Ms. Aki Tsuchiyagaito^{1, 2, 3}

Integrating Neuropsychological Evidence into Cognitive Behavioural Therapy (CBT) and Neurofeedback: Brain Abnormalities Associated with CBT Outcome

¹ Research Center for Child Mental Development, Chiba University, Japan

² United Graduate School of Child Development, Osaka University, Japan

³ Center for Medical Education and Career Development, Fukushima Medical University, Japan

In recent years, significant evidence has been found in neurobiological mechanisms of mental disorders and its changes that occur on the course of psychotherapy. Cognitive behavioral therapy (CBT) is the most commonly used evidence-based psychotherapy in the treatment of mental disorders (Butler et al., 2006). With a new generation of research methods including brain imaging, new insights have been found in the aspects of predictors and mediators of CBT. These studies indicated that CBT could alter brain function and connectivity including cortical and subcortical structures associated with self-reference, emotion regulation, information processing, and so on. It has been thought that CBT influences top-down brain processing, while pharmacotherapy influences bottom-up brain processing (Goldapple et al., 2004). Although CBT is regarded as efficacious, the current evidence suggests that a certain number of subjects receiving CBT do not obtain diagnostic recovery or significant symptom reduction, therefore, the efficacy of CBT is questionable for some patients (Hofmann et al., 2012). Research investigating potential predictors of CBT outcome is needed to inform continuous improvement of CBT.

For example, CBT is an effective treatment for Obsessive-Compulsive Disorder (OCD) and is also applicable to patients with both OCD and Autism Spectrum Disorder (ASD). However, previous studies have reported that CBT for patients with both OCD and ASD might be less effective than for patients with OCD alone (Mito et al., 2014; Murray et al., 2015). In addition, there is no evidence as to why autistic traits might be risk factors. Therefore, we investigated whether comorbidity between ASD and OCD might significantly affect treatment outcome, and discovered predictors of CBT outcomes using structural magnetic resonance imaging (MRI) data. Finally, we will suggest implications for the integration of CBT and neurofeedback training.

16:30 Student Award Presentation

with thanks to Dr Phil Watts & Dr Shelley Hyman

ANSA has a student presentation section at each national conference. We consider expressions of interest to share the products of student research and finalists are selected to include in our conference program. Each of the finalists have their conference registration fee waived and also receive a financial contribution toward costs of travel and accommodation –*valued at \$1000 - \$1500.*

Following the presentations (approx. 20 minutes per student), an academic panel selects one student to receive the annual ANSA Student Prize for Research in Applied Neuroscience.

17:00 – 2018 Conference Announcements & Closure of the 2017 Conference

18:00 – 21:00 ANSA Board - Dinner Meeting

Post-conference Workshop Schedule

08.00-08:30 Registration

08.30, PRESENTER - Dr Fred Shaffer

BCIA-accredited HRV Biofeedback 2-day Training Course

Monday

08.30 – 10.30, Session 1

10.30-10.50 Break

11.00-13.00, Session 2

13:00 – 13:50 Lunch

14:00 – 15:30, Session 3

15.30 - 15.50 Break

16.00-17.30, Session 4

17:30 – 18.30 Happy Hour

Tuesday

08.30 – 10.30, Session 1

10.30-10.50 Break

11.00-13.00, Session 2

13:00 – 13:50 Lunch

14:00 – 15:30, Session 3

15.30 - 15.50 Break

16.00-17.30, Final Session

PROGRAM END

What Is Heart Rate Variability?

Heart rate variability (HRV) is the physiological phenomenon of variation in the time interval between heartbeats. It is measured by the variation in the beat-to-beat interval.

This 15-contact-hour workshop is designed for biofeedback/neurofeedback practitioners, psychologists, clinical counsellors, clinical social workers, marriage and family therapists, nurses, physicians, and other health care professionals and academicians interested in utilizing heart rate variability (HRV) biofeedback in their practice or research.

This workshop will cover all 15 hours of the BCIA HRV Biofeedback Certificate of Completion Blueprint and will cover cardiac anatomy and physiology, respiratory anatomy and physiology, autonomic nervous system anatomy and physiology, heart rate variability, HRV instrumentation, HRV measurements, HRV biofeedback training strategies, and HRV biofeedback applications. Attendees will gain practical knowledge about HRV and breathing assessment and training.

BCIA, www.bcia.org

The Biofeedback Certification International Alliance (BCIA), formerly the Biofeedback Institute of America, was created in 1981 with the primary mission to certify individuals who meet education and training standards in biofeedback and progressively recertify those who advance their knowledge through continuing education.



In 1996 the Board of Directors of the Biofeedback Certification Institute of America and the Academy of Certified Neurotherapists collaborated to develop a specialty certification in EEG Biofeedback to be managed and administered by BCIA. Since 1998 the formal certification program in EEG Biofeedback has been available. In March of 2010, we adopted a new name to reflect our global identity and became the Biofeedback Certification International Alliance.

BCIA is an autonomous non-profit corporation. BCIA policies and procedures are set by an independent board of directors, comprised of a rotating group of distinguished biofeedback clinicians, researchers, and educators.

Become Board Certified in HRV

Why did BCIA launch a certificate program in HRV?

BCIA's Certificate of Completion in HRV biofeedback confirms that a professional has successfully completed an educational program recognized by the biofeedback field. We believe that building and maintaining educational standards is crucial for all biofeedback modalities to gain respect from the health care community and to take their rightful place alongside other recognized treatments.

A **certificate of completion** demonstrates that an applicant has successfully completed an approved and standardized didactic workshop based on fundamental science that meets rigorous academic standards. Following needs assessment, BCIA concluded that an HRV certificate of completion would better promote BCIA's educational mission than a new certification. A certificate could increase the rigor of didactic programs teaching HRV biofeedback and enhance the expertise of academics, technicians, performance specialists, and licensed health care professionals who utilize HRV biofeedback.

Who can earn this certificate?

The HRV certificate of completion is intended for anyone who wants to demonstrate that they have followed a standardized training program to learn how to use this modality, but specifically for:

- BCIA certificants
- health care professional who uses it clinically
- individuals with no specified clinical background who provide optimal performance training using this modality.

Where do I start?

All applicants must:

1. agree to abide by [BCIA's Professional Standards and Ethical Principles \(PSEP\)](#),
2. complete a [BCIA-approved HRV biofeedback didactic program](#),
3. document completion of 3 hours of ethics/professional standards course work, taken within the last 5 years
4. pass a nationally-standardized online exam based on the [15-hour Blueprint of Knowledge](#), based on this [reading list](#).

Didactic Education

The 15-hour blueprint content is divided into 8 rubrics as follows:

Cardiac Anatomy/Physiology	1 hour	HRV Instrumentation	3 hours
Respiratory Anatomy/Physiology	1 hour	HRV Measurements	2 hours
ANS Anatomy/Physiology	.5 hour	HRV Biofeedback Strategies	4 hours
Heart Rate Variability	2 hours	HRV Biofeedback Applications	1.5 hours

Ethics/Professional Conduct - Completion of [3 hours of course](#) work taken within the last 5 years as would be appropriate for BCIA certification or recertification.

Filing an Application

You may file your [application](#) at any time you wish during the certification process. In order for the application to be valid, you must include your filing fee.

Fees

All applications must include a filing fee (USD):

- **\$25** for all students enrolled in a health care degree program at a regionally accredited academic institution according to BCIA certification standards
- **\$25** for all BCIA certificants – BCB, BCN, BCB-PMD
- **\$50** for all other applicants

All fees are non-refundable and must be paid in US funds by check or [online](#).

To learn more about HRV, BCIA has offered webinars over the years and the recordings are available for purchase. Each one is only \$40 and they will provide more insight into the science and clinical application of HRV Biofeedback. To view a list of these recordings, visit <http://www.bcia.org/files/webinars/HRVCUWebinarRecordings.pdf>

For further information, contact: info@bcia.org

View the website: www.bcia.org





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, and 10 case presentations. More than 1 mentor may be used.

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

APPLICATION

6] Request an application form by emailing 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

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

BCIA-A Certified in Neurofeedback, *current as of 12/08/17*

****BCIA-A Approved Mentors**

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

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

Since 1995, the mission of the QEEG Certification Board is to certify individuals who are functioning in the field of Quantitative Electroencephalography on two levels:

- **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 among ANSA members seeking professional development in QEEG and more recently, to attain the minimum standards required for **QEEG Certification**. 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

In 2016, QClub members sat the QBoard Certification Exam and we celebrated fabulous success with 11 members achieving QEEG Diplomate status. These people are now eligible to provide QEEG Board approved mentoring to their peers and supervisees. Congratulations to:

Trevor Brown, VIC	Joel Harman, SA	Moshe Perl, VIC
Daniel Lane, WA	Tim Hill, SA	Dianah Rodrigues, NSW
Natalie Challis, WA	Michelle Aniftos, QLD	Philip Watts, WA
Michelle Gorgula, SA	George Mack, VIC	

We also acknowledge Cassie Atkinson-Quinton and Kerry Leahan, QEEG-Technicians.

Brain, Mind & Consciousness

2018, 12th Annual ANSA Conference & Workshops

8:30am – 5:30pm, Thursday 16 & Friday 17 August, PRE-CONFERENCE WORKSHOP
C. Richard Clark, Brain, Mind & Consciousness: the Psychobiology of Neuromodulation

6 – 8pm, Friday 17 August, CONFERENCE WELCOME RECEPTION (Gold Sponsor tba)

8:30am – 5:30pm, Monday 20 August, POST-CONFERENCE WORKSHOP
David Cantor, A Review of Neural Networks & Theoretical Applications

CONFERENCE WEEKEND DRAFT PROGRAM

Saturday 18 August		Sunday 19 August	
8:30 Welcome by Michelle Aniftos, ANSA President		8:30 Welcome by Phil Watts, BCIA-A Chair	
KEYNOTE – Richard Clark Psychobiology of Neuromodulation 10.15 Silver Sponsor: tba		KEYNOTE - David Cantor Neurotherapy for Autism Assessment and Treatment 10.15 Silver Sponsor: tba	
10.30-11am Refreshments Break		10.30-11am Refreshments Break	
SHOWCASE: Case Studies in Pre/post EEG Assessment and the Course of Neuromodulation		KEYNOTE - Jacqueline Saad Regional Brain Network Organisation in ADHD & Update on iSPOT-A: international Study to Predict Optimized Treatment for ADHD 12.15 Silver Sponsor: tba	
1 – 2pm Lunch, Tradeshow 1.30pm BCIA-A AGM		12.30-1.30pm Lunch, Tradeshow 1pm APS NFG IG AGM	
KEYNOTE - Randy Beck Abnormal cortical asymmetry as a target for neuromodulation in neuropsychiatric disorders 3.15 Silver Sponsor: tba	1.30pm – 4.30pm BCIA Neurofeedback & QBoard Exams	KEYNOTE - Leslie Sherlin Optimising performance in developmental disorder 2.45 Silver Sponsor: tba	
3:30– 4pm Refreshments Break		3 - 3:30 Refreshments Break	
KEYNOTE - Len Ochs Evidence for Lens Neurotherapy 18:30: ANSA Gala Dinner Live Music: tba Platinum Sponsor: tba		KEYNOTE - Aamir Malik Factors affecting Learning & Memory: Implications for Intervention 4.30pm – 5:30pm ANSA AGM 5.30 - Conference Close 18:00 – 21:00 Executive Board Dinner Meeting	

**Conference 2017 Supporters & ANSA members have access to our
 Conference Launch Special Registration.**

Don't miss out on this deal! \$560 - full conference program including Friday Welcome Reception, Saturday & Sunday conference registration, morning and afternoon teas and lunches during Saturday and Sunday. This special offer closes on 1/11/17 at which time a full range of Member & non-Member Registration rates will be released. None of those offers will be as affordable as our Conference Launch Special rate.

2018 Conference Registration available at: <http://appliedneuroscience.org.au/events/>

Brain, Mind & Consciousness

2018, 12th Annual ANSA Conference & Workshops

Call for Showcase Submissions

The Conference Committee of the Applied Neuroscience Society of Australasia ANSA members and colleagues to share a single case study in Pre/post EEG Assessment and the Course of Neuromodulation. We have included a 2-hour session in the 2018 conference program within which we hope to hear from neuro-practitioners regarding a clinical or optimum performance client and their journey through EEG-assessment and EEG-guided intervention. The cases must be prepared for one or both of the following presentation mode.

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

Use the template below to email your expression of interest to michelle@msmh.com.au (Michelle Aniftos, Conference Chair) before 31 March 2018. The conference committee will notify the selected presenters before the 30 June 2018. N.B. All presenters must be registered delegates of the 2018 ANSA Conference.

2018 Conference Registration available at: <http://appliedneuroscience.org.au/events/>

SHOWCASE SUBMISSION	
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	
Abstract: (must include introduction and aim, procedure, results and discussion/conclusion)	

Networking/Notes

Lined writing area with 20 horizontal lines.

