

## Brain-based Assessment in Mental Health: QEEG & ERP Training Program

**N.B.: due to feedback from potential delegates, the proposed 24 – 29 November 2019 program has been CANCELLED in lieu of the following developmental approach to learning EEG and ERPs.**

Brought to you by MSMH & BMMI:



**Mind, Science & My Health (MSMH)** has developed flexible training options toward completion of Quantitative Electroencephalography (QEEG) Didactic Training which is required for those seek preparation toward IQCB\* Certification in QEEG.

*\*The International QEEG Certification Board (IQCB) was established to certify the competence of individuals in obtaining and interpreting a Quantitative Electroencephalograph (QEEG). In addition to a minimum of 10 hours of mentoring and passing the IQCB examination in QEEG, candidates must complete a 36-hour QEEG Didactic Training course.*



**Brain, Mind and Memory Institute** is a private foundation promoting neuroscience-based applications in brain and mind health. The *QEEG & ERP program* has been developed by MSMH and is being offered in collaboration with BMMI and with Professor Juri Kropotov.

### About the Course Presenters



**Professor Juri Kropotov** is a world-renowned neuroscientist and a leading expert in the basic and applied neuroscience. The unique methodology developed in his labs at the Human Brain Institute in St Petersburg (Russia) allows a sophisticated analysis of brain electric activity in resting states and under task conditions. The methodology is described in his book Kropotov, J.D. (2009). *Quantitative EEG, event-related potentials and neurotherapy*. London: Academic Press. These precise measurements of brain function can be used as Neuromarkers in the clinical context to evaluate brain health in different psychiatric and neurological disorders. The experience of translating this methodology into clinical practice is presented in his recently published book Kropotov, J. D. (2016).

*Functional neuromarkers for psychiatry: Applications for diagnosis and treatment*. San Diego, CA, US: Elsevier Academic Press. Juri's workshops are totally unique: the workshop will give you theoretical and practical experience of how to measure and analyse QEEG and ERPs using Human Brain Index Database with most advanced software tools available. Learning to use Neuromarkers is essential for psychiatrists, neurologists, psychologists, forensic and criminology experts, brain researchers and anyone involved in brain training and neuromodulation.

**Michelle Aniftos** is a Clinical Psychologist, Certified in Neurofeedback (BCIA) and a Diplomate of the QEEG Board International (IQCB). She is the founder, Director and Senior Clinician of Mylne Street Mental Health in Toowoomba, Queensland, where she serves a diverse clientele of children and adults with mental health concerns. Michelle is accredited by the Australian Health Practitioner Regulation Agency as a Supervisor of Provisional, Registered and Clinical Psychologists and is an approved mentor for Neurofeedback and QEEG certification candidates. Michelle is past Convener of the Australian Neurofeedback & Psychology Interest Group; Fellow of the Applied Neuroscience Society of Australasia (Past President); and Past Chair of the Biofeedback Certification International Alliance - Australia.



Additional faculty to be announced.

Contact: [michelle@msmh.com.au](mailto:michelle@msmh.com.au)

Mobile: +61 (0) 423 54 84 64

## Step One: Build your Knowledge Base in ERPs

### Introduction to Event-Related Potentials in Clinical Practice: ERPs Webinar Series

featuring Professor Juri Kropotov

An event-related potential (ERP) is an electrical response of the brain to a specific event. It is measured by the same amplifiers as a conventional multi-channel EEG but adds measurements during task performance: presentation of stimuli (visual, auditory) and response to stimuli (pressing a button, verbal response...).

#### **First one FREE: Introduction to Event-Related Potentials**

5.30pm Brisbane AEST, Tuesday 12<sup>th</sup> November

Followed by 6 x 1-hour live webinars:

- ERPs and **ADHD**, 5.30pm BNE AEST, Tuesday 19<sup>th</sup> November
  - *Defining subtypes & predicting response to psychostimulants*
- ERPs and **ASD**, 5.30pm BNE AEST, Tuesday 26<sup>th</sup> November
- ERPs and **Schizophrenia**, 5.30pm BNE AEST, Tuesday 3<sup>rd</sup> December
  - *Early prediction of converting to psychosis*
- ERPs and **Obsessive-Compulsive Disorder**, 5.30pm Brisbane AEST, Tuesday 10<sup>th</sup> December
- ERPs and **Alzheimer's Disease**, 5.30pm Brisbane AEST, Tuesday 17<sup>th</sup> December
- ERPs and **Peak Performance**, 5.30pm Brisbane AEST, Tuesday 7<sup>th</sup> January
  - *Associating ERP components with personality traits*

*In these 1-hour webinars, Professor Kropotov will review the methods for ERP recording, the approaches of extracting latent components, discuss advantages and disadvantages of different ERP databases, and describe cases of different psychiatric conditions. There are 7 webinars in total. The first is FREE TO REGISTER and will provide an introductory overview of ERPs, their association with stages of information processing and their importance in clinical practice. The subsequent six webinars will address: ADHD, ASD, Schizophrenia, OCD, Alzheimer's Disease and Peak Performance. You may register for each topic independently or purchase the series as a 6-pack.*

## Step Two: Develop Clinical Understanding (supervision strategy)

### QEEG and/or ERPs Analysis, Reporting and Consultation Service

QEEG and/or ERP recording available at [BMMI](#) (Tweed Heads, NSW) or [MSMH](#) (Toowoomba, QLD)  
Other clinic locations to be announced - providers will be Certified in QEEG & ERP recording

At this stage, you may choose to access a QEEG and/or ERPs Analysis Service. Either collect the QEEG & ERP data independently and send the data for analysis and recommendations or send your clients to one of our trained service providers for their QEEG/ERP study to be completed. You may then choose a live consultation with Professor Juri Kropotov to discuss the findings or choose to receive a written report or access both the written report and live consult with Juri.

1. Send your client for QEEG/ERP study at one of the above clinics. Fee: \$600 AUD  
(If you can collect QEEG & ERP data, you can send this directly for analysis services.)
2. Data Analysis and Recommendations provided by written report. Fee: \$350 AUD
3. Data Analysis and Recommendations provided by live consultation with Yuri Kropotov if preferred as an alternative to [2] above. Fee: \$350 AUD
4. Written Report & Live Consultation - combines options 2 & 3 above. Fee: \$600 AUD

## Step Three: Develop EEG and ERP Assessment Capacity

### MSMH QEEG Didactic Certificate Course

Following completion of this course (and access to technology required to conduct assessments), you will be able to independently record QEEG and ERP data to send for analysis or complete your own analyses under supervision.

QEEG Diplomate, Michelle Aniftos, offers you a QEEG and ERP course that requires seven core modules to be completed by distance education (including webinar tutorial sessions) and followed by a 2-day or 3-day practicum to complete an IQCB-accredited 36-hour QEEG Didactic Course. The following modules include self-guided reading, assessment items and online webinars and tutorial sessions with the QEEGD Mentor:

1. Ethics & Professional Conduct (2hrs self-guided plus 1hr tutorial)
2. Basic Neurophysiology & Neuroanatomy (4hrs self-guided plus 1hr tutorial)
3. Clinical and Cognitive Aspects (6hrs self-guided plus 2 x 1hr tutorials)
4. Editing raw EEG and artifacts (2hrs self-guided plus 1hr tutorial)
5. Montages, Spectral and Topographic Aspects of the EEG (3hrs self-guided plus 1hr tutorial)
6. Drug Effects (2hrs self-guided plus 1hr tutorial)
7. Database Analysis (4hrs self-guided plus 1hr tutorial)

The above package of distance education modules will be offered as a 12-week online course between 27<sup>th</sup> January and 17<sup>th</sup> April 2020. A maximum of 12 places will be available. Pre-reading materials will be available to registered participants from the 18<sup>th</sup> November (closing date for registrations). In order to attain the **MSMH QEEG Didactic Course Certificate**, participants must also complete a QEEG practicum to cover modules:

8. Practicum, recording EEG & ERPs, artifacting, montages & displaying the data (6 hours)
9. QEEG Analysis & Neurofeedback Application (6 hours)

**These two practical modules will be covered via Day 2 and Day 3 of the following workshop. An optional Day 1 provides delegates more foundation skills by delivering Modules 2 and 5 from the core modules (i.e., Modules 2 and 5 may be accessed via the online/distance learning model OR completed on-site during Workshop Day 1. Yes, you may elect to complete Module 2 & 5 in both the online AND workshop formats to advance your learning).**

**Course fees apply: \$1850 + GST** (7 distance education modules plus Day 2 & Day 3 practicum modules);  
or **\$2100 + GST** if electing to complete the Distance plus 3-day practicum option.

**3-Day QEEG Practicum** (includes recording ERPs) – 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> April 2020, Bond University, Gold Coast

<p><b>(Optional) Day One, 03/04/20</b>              8.30 - 1.30pm: Basic Neuroanatomy &amp; Neurophysiology for QEEG              2pm – 6.30pm: Practicum, recording &amp; displaying EEG – Montages, Spectral &amp; Topographies</p>
<p><b>(Compulsory) Day Two, 04/04/20</b>              8.30 -11am: Review QEEG Core Modules              11.30am -1.30pm: Practicum, recording EEG &amp; ERPs (winEEG &amp; Studio Software)              2pm – 6.30pm: Practicum, artifacting procedures, montages, EEG spectra and topographies</p>
<p><b>(Compulsory) Day Three, 05/04/20</b>              9am - 11am: Recording EEG (resting and task-performance states)              11.30am - 6.30pm: QEEG Analysis &amp; Neurofeedback Applications</p>

**N.B.:** Having completed an accredited 36-hour QEEG Didactic Course, delegates pursuing [IQCB QEEG Certification](#) need to submit 5 case presentations to an approved QEEG-D Mentor, a total of 10 contact hours in mentoring, and successfully complete the Board Examination to attain QEEG Certification.

To register for this QEEG & ERP Training component, please send your expression of interest directly to: Mind, Science & My Health via [michelle@msmh.com.au](mailto:michelle@msmh.com.au); phone enquiries welcome via +61 (0) 423 54 84 64.

## Step Four: Develop ERP Analysis and Reporting Competencies

There are reasons to add ERPs into your clinical practice:

- ERPs show superior diagnostic power in comparison to QEEG. Many ERP components demonstrate high effect sizes for discriminating a patient group from healthy controls. The number of papers exploring ERPs for diagnosis is 10 times larger than of QEEG papers.
- ERP technique provides behavioural information such as reaction time and its variability, omission and commission errors, e.g., one can differentiate behavioural pattern of the inattentive ADHD subtype.
- ERPs indicate the specific operations which are impaired in a particular patient thus providing crucial information for electrode location of neurofeedback, tDCS and TMS techniques. For example, one can define what part (temporal-parietal or frontal) of the cognitive control system is impaired in ADHD.
- ERPs also predict a response of the patient to particular medication, e.g., measuring the ERPs before and after application of one dose of Ritalin one can define if the patient is responder or non-responder.

### ERP Analysis Training & Mentoring Program

At this stage, you are ready for face-to-face training with Professor Yuri Kropotov who will visit Australia in September 2020 to teach his 4-day ERP Analysis Workshop in Melbourne.

*(dates to be finalised for early September 2020, in Melbourne CBD)*

<p><b>Day 1, dates tbc</b>              8.30 -10.30am: Recording EEG, ERP &amp; behavioural data &amp; Artifacting              11am -1pm: Practicum Editing &amp; Artifacting Raw EEG &amp; Montages              2- 4pm: QEEG Analysis &amp; Neurofeedback Applications              4.30 – 6.30pm: QEEG Analysis &amp; Neurofeedback Applications</p>
<p><b>Day 2, dates tbc</b>              8.30 -10.30am: Case Examples to Explore Brain Systems (Sensory, Executive, Affective, Memory).              11am -1pm: Recording EEG, ERP &amp; behavioural data              2pm-4pm: Artifacting &amp; Analysis (ERP waves&gt; N1, N170, P2, N2 NOGO, P3NOGO)              4.30 – 6.30pm: ERP latent components (category discrimination, comparison to working memory, action inhibition, conflict detection)</p>
<p><b>Day 3 – dates tbc</b>              9am – 11am: Recording &amp; Analysis              11.30am – 1pm: ERPs in Neurodevelopmental Disorders (ADHD &amp; ASD)              2 - 5.30pm: ERPs in Other Clinical Disorders (Schizophrenia &amp; OCD)</p>
<p><b>Day 4 – dates tbc</b>              9am – 11am: Recording &amp; Analysis              11.30am – 1pm: ERPs in Cognitive Decline and Alzheimer’s              2 - 5.30pm: ERPs in Peak Performance</p>

N.B.: To complete the BMMI Certificate of ERP Analysis, you will need to have 10 hours of case supervision for your skills' development, following completion of the 4-day ERP Didactic Training.

# REGISTRATION FORM

Tax Invoice will be dispatched following receipt of your registration form.

## 1. Personal Details

Surname:		Given names:	
Postal address:			
State:	Postcode:	Country:	
Home Phone:	Work Phone:	Mobile:	
Email:			Fax:

## 2. Academic Qualifications

Please indicate your profession and/or demonstrate suitability to participate in this post-graduate professional training in applied neuroscience.

I have Professional Registration in the field of: \_\_\_\_\_

I have completed graduate studies in: \_\_\_\_\_

## 3. Registration Options

Please register \_\_\_\_\_ (*delegate First and LAST name*) for:

### **Step I: Introduction to ERPs**

Please select webinars individually or the 6-pack below:

**First one FREE: Introduction to Event-Related Potentials in Clinical Practice**

5.30pm Brisbane AEST, Tuesday 12<sup>th</sup> November

6 x 1-hour live webinars (\$50 AUD + GST per webinar **or** \$250 AUD +GST for the 6-pack).

- ERPs and **ADHD**, 5.30pm Brisbane AEST, Tuesday 19<sup>th</sup> November
- ERPs and **ASD**, 5.30pm Brisbane AEST, Tuesday 26<sup>th</sup> November
- ERPs and **Schizophrenia**, 5.30pm Brisbane AEST, Tuesday 3<sup>rd</sup> December
- ERPs and **Obsessive-Compulsive Disorder**, 5.30pm Brisbane AEST, Tuesday 10<sup>th</sup> December
- ERPs and **Alzheimer's Disease**, 5.30pm Brisbane AEST, Tuesday 17<sup>th</sup> December
- ERPs and **Peak Performance**, 5.30pm Brisbane AEST, Tuesday 7<sup>th</sup> January

- 6-Pack: Introduction to ERPs in Clinical Practice** includes all the above sessions

**Step II: ERPs Analysis Service:** *pay as you go. Bookings via email to [r.yumash@icloud.com](mailto:r.yumash@icloud.com)*

### **Step III: Develop EEG and ERP Assessment Capacity**

**MSMH QEEG Didactic Course - \$1850 + GST** (Distance Education plus 2-day practicum option); or

**MSMH QEEG Didactic Course - \$2100 + GST** (Distance Education plus 3-day practicum option).

### **Step IV: ERP Analysis 4-day Training Workshop**

**ERP Analysis 4-day Training** with Brain Mind & Memory Institute Pty Ltd - **\$1850 AUD + GST**

Register ONLINE at <https://www.braininstitute.com.au/Brain-based-assessment-QEEG-&-ERP-Course/>