

# NEUROSCIENCE AND NEUROLOGICAL DISORDERS

## April 11-12, 2019 | Barcelona, Spain

**NEUROSCIENCE CONGRESS 2019** 







KEYNOTE FORUM DAY 1





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Ann Marie Leonard-Zabel, J Neurol Neurorehabil Res 2019, Volume 4

## **Ann Marie Leonard-Zabel**

Curry College, USA



# BIOGRAPHY

Ann Marie Leonard-Zabel is a full professor of psychology at Curry College in Massachusetts, USA. She is president of private clinic specializing in International School Neuropsychology and Clinical Forensic Counselling. She holds diplomat and fellow certifications in the field of neuropsychology, forensics, autism, psychotherapy, addictions,

Cognitive behavioral therapy (CBT), disability analysis, and homeland security. She was recognized in the American Psychological Association-Monitor on Psychology Journal under the personality and achievement section. This year she was awarded the Distinguished Leadership Circle of Directors from the American Board of Disability Analysts and the title of Honorary Founding Faculty Member for the American College of Disability Analysts. She serves on the Learning Disabilities Worldwide Congress-Board of Directors. She was awarded the Curry College excellence in teaching 'Researcher of the Year' and 'Person of the Year' from Curry College acknowledging excellence in teaching, mentorship, leadership and community service. Recently, she was awarded the Jerrold Simon Award for distinguished lifetime career achievement from both the American Board of Disability Analysts and the American Board of Medical Psychotherapists and Psychodiagnosticians of which she is the third recipient to ever receive the award from both organizations.

### SOLVING THE MYSTERY OF AUTISM SPECTRUM DISORDERS FROM A PEDIATRIC SCHOOL NEUROPSYCHOLOGICAL PERSPECTIVE

Goal: Children and youth are being diagnosed on a daily-basis with Autism Spectrum Disorders (ASD). This presentation will explore autism spectrum disorders from a Pediatric School Neuropsychological approach.

A comprehensive assessment is a necessary step in the overall planning for students with Autism Spectrum Disorders (ASD). However, children and youth with ASD are likely to present with unique challenges and issues during the formal neuropsychological assessment, which may impact the successful completion of the evaluation process and the usefulness of the assessment data. Since instructional programming is considered on information regarding a child and youth's current levels of performance and identification of educational needs, accurate and useful assessment data is of utmost importance to the individual's educational adjustment and personal success.

The goal of this presentation is to provide an understanding of ASD from a pediatric school neuropsychological and brain-based perspective involving the assessment process.

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#### Objectives

- Autism Spectrum Disorders (ASD) defined via the Diagnostic and Statistic Manual of Mental Disorders (DSM-5) from an educational/clinical perspective.
- Informal ASD Screening approaches to review pathognomonic neuropsychological signs.
- Formal assessment of ASD from an Integrated Pediatric School Neuropsychological Model
- Neuropsychological strengths/weaknesses associated with ASD to aid with educational planning.

As a result of addressing the above objectives, professionals will learn a "Best Practices" approach to Pediatric School Neuropsychological Assessment of Autism Spectrum Disorders.



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Arthur Ernst van Woerkom, J Neurol Neurorehabil Res 2019, Volume 4



### **Arthur Ernst van Woerkom**

South Birmingham & Solihull Mental Health NHS Foundation Trust, UK

## BIOGRAPHY

Arthur Ernst van Woerkom is a general adult psychiatrist. Completed his training in natural sciences for medicine at Trinity Hall, and Addenbrookes, Cambridge), and he have a long standing interest in the biochemistry of mood disorders, schizophrenia and psychosis. Many years ago, before he started working in the field of psychiatry, he proposed that major hallucinogens such as LSD and mescaline act in key part by disrupting the fine structure of consciousness by causing the collapse of tubulin and actin related cytoskeletal mechanisms.

For a few years he was in an NHS funded research fellowship at the department of psychiatry with Prof Martin Roth. For a time, he was an honory senior clinical lecturer in psychiatry in Birmingham.

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### LITHIUM UTILIZES HIDDEN CELLULAR 'FAIL-SAFE-MECHANISMS'

A new unified model for Lithium's mode of therapeutic action has recently been proposed.

Lithium's many protective actions provide evidence for the existence of a set of low-cell [Mg++] sensitive, cell-protection systems. To survive in conditions associated with a very low cell [Mg++], (neuronal) cells will require 'Fail-Safe' mechanisms, as below a critically low intracellular [Mg++], many Mg++ requiring systems risk grinding to a halt. This latent vulnerability implies the existence of specific protective responses, activated by a low-intracellular [Mg++], at times, (particularly post head- injury), and used as a metabolic 'alarm-signal'. These 'fail-safe' systems would also help regulate, buffer, and restore cell [Mg++], and as Li+ mimics a low cell [Mg++] level, activating these pre-existing systems provides the underlying basis of Lithium's therapeutic effects.

The 'fail-safe'-model postulates the existence of pre-programmed biochemical responses, adapted to provide protection against t.b.i., mechanical brain injury; involving the activation of pathways sensitive to a lowfree cell [Mg++], these appear to be 'parasitically' utilised by Lithium to generate its therapeutic effects. These systems would underpin neuronal cell protection, and provide a key biochemical mechanism for stabilising mood, and providing intrinsic mental and cellular resilience.





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KEYNOTE FORUM DAY 2





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### April 11-12, 2019 Barcelona, Spain

Mohamed Ahmed Fahmy Zeid, J Neurol Neurorehabil Res 2019, Volume 4



Brain & Skull Egyptian Society, Alexandria University, Egypt



# BIOGRAPHY

Mohamed Ahmed Fahmy Zeid is a founder and chair of Brain & Skull Egyptian Society, full professor of neurosurgery, Alexandria University, Egypt. He is a specialized professor of neurosurgical department.

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### INNOVATED MICRO-SURGICAL SUCTION AND IRRAGTIONS NEURO –SURGICAL DISSECTING FORCEPS WITH "BIPOLAR CAPABILITIES"

**Objective:** The operating surgeons usually using the dissection forceps while the assistants continuously keeping the surgical field relatively clean by irrigation and suction through suction tube and another one for irrigation which might lead to "crowded" or busy traffic operative field by many instruments under magnification.

**Methods:** Our innovated forceps use the two limps of the forceps for two separate functions, one for irrigation, while the other limp for suction by using a tube inside each of both, This tube end separately in the back of that forceps, however from the two limps & tubes one of them is attached to the disposable polyethylene channel tube to the finely granulated power suction apparatus. While the other tube at the back end of that forceps is attached to the line of infusion control irrigation which could be control the speed of the flow of saline irrigation out to the field of surgery. So, we could control the power of both functions accurate and separately.

**Result:** We have already made the pro-type of that forceps which have been used for experimental surgery in animal & also, recently have been used in one of our patient, for that particular case a video-clip was inserted.

**Conclusions:** So, the use of the single instrument "The Forceps" for dissection, irrigation and suction actually facilitate micro-surgical operation

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especially tumor capsule dissection and excision instead of three instrument working simultaneously in a limited filed of the microscope.

Future researches about that forceps: The running research is to develop a co-agulation capability with the above mention functions.

**Key words:** Innovated Suction, irrigation & dissecting micro-neurosurgical forceps with separate double control for both functions separately.





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Bob Gant, J Neurol Neurorehabil Res 2019, Volume 4



## **Bob Gant**

Institute for Clinical Neurosciences, USA

## BIOGRAPHY

Bob Gant is a board-certified clinical neuropsychologist with extensive professional experience as a treating and forensic neuropsychologist, including the assessment of and treatment of brain injury and PTSD. He completed a clinical internship at the University of Kansas Medical Center and is the past president of section II of the APA division of clinical psychology. He is a licensed psychologist in two states (Colorado and Texas) in the United States. He is on the board of the American Board of Professional Neuropsychology (ABN) and director of an approved residency program in clinical neuropsychology (ACPN) in Boulder Colorado and Dallas, Texas.

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## **CONCUSSIONS UPDATE 2019**

This presentation will provide an update on the status of concussion comma including a discussion of issues such as recovery time, the impact on brain functioning & treatment and rehabilitation issues. This is an important topic as clinicians and researchers attempt to understand sports related head injuries, traumatic head injuries associated with violence and war, and head injuries suffered as part of life including those sustained in household accidents and motor vehicle accidents. A discussion of predictors of clinical recovery will be included including predictors for return to work and school following a concussion. Recommendations will be discussed including recommendations for treatment, exercise, and medical intervention which might facilitate recovery. It is hoped that the attendee we'll obtain a clear understanding of the status of concussion research and treatment as a result of this overview.