

**3<sup>rd</sup> Society of Applied Neuroscience Meeting**  
**in collaboration with**  
**COST B27 Action: Electric Neuronal Oscillation & Cognition**  
May 7<sup>th</sup> – 11<sup>th</sup> Seville, Spain

<http://www.applied-neuroscience.org/>

<http://san-seville2008.unicongress.org/>

## Invited Speakers

Andrew C. Papanicolaou (Magnetoencephalography)

Georg Northoff (fMRI)

Roy John (QEEG)

Arne Dietrich (Creativity, hypofrontality and exercise)

Wolfgang Klimesch (Oscillations)

Juri Kropotov (ADHD)

Aribert Rothenberger (ADHD)

Christa Neuper (NIRS)

Thomas Elbert (PTSD)

José M. Domínguez-Roldán (Cerebral Death)

Linás A. Bieliauskas (Cognitive Reserve and Aging)

Leslie Prichep (Dementia)

Francisco Murillo-Cabezas (Neuroimaging in ICUs)

Eric Vermetten (PTSD)

## Co-Chairs SAN'08

José León-Carrión

John Gruzelier

## Local Steering Committee

Juan Francisco Martín-Rodríguez

Jesús Damas-López

Juan Manuel Barroso y Martín

Wednesday May 7th 2008

Time				
10.00	<b>10.00 – 14.00 hr.</b> <b>Workshop</b> <i>Biofeedback Platform (NeuroBird) for posture &amp; equilibrium disorders</i> Montserrat Altemir, Juan M. Barroso & Umberto León-Domínguez	<b>10.00-18.00 hr.</b> <b>SAN Accreditation Module</b> <i>QEEG hands-on recording, data analysis and applications</i> Tony Steffert & Tomas Ros	<b>10.00-18.00 hr.</b> <b>SAN Accreditation Module</b> <i>Quantitative EEG and event related potentials as biological markers of brain function and dysfunction</i> Jury Kropotov	<b>10.00 – 14.00 hr.</b> <b>SAN Accreditation Module</b> <i>Neurofeedback hands-on introduction</i> Lesley Parkinson & Beverly Steffert
10.30				
11.00				
11.30				
12.00				
12.30				
13.00				
13.30				
14.00	<b>14.00 – 16.00 Lunch Break</b>			<b>15.00 - 20.00 hr. Workshop</b> <i>Multivariate Whole-Head approaches to EEG assessment training</i> Tom Collura
14.30				
15.00				
15.30				
16.00				
16.30				
17.00				
17.30				
18.00	<b>18.00 – 20.00hr. Workshop</b> <i>SAN Education Track</i> Lesley Parkinson, Beverley Steffert & Andreas Müller	<b>18.00 - 20.00 hr. Workshop</b> <i>Tele-Neurofeedback with special application of real-time norm-training</i> Doerte Klein	<b>18.00 – 20.00 hr.</b> <b>SAN Accreditation Module</b> <i>Psychopharmacology &amp; EEG</i> Tanju Surmeli	
18.30				
19.00				
19.30				

Thursday May 8th 2008

Time				
08.00	<b>8.00 hr. Registration desk open</b>			
08.30				
09.00	<b>9.00 - 9.45 hr. Opening welcome</b> José León-Carrión Mayor of Seville Excmo. D. Alfredo Sánchez Monteserín SAN President John Gruzelier			
09.30				
	<b>9.45 – 10.30 hr. Invited Speaker I</b> Eduardo Punset (TBC, Title TBC)			
10.00	<b>10.30 – 11.00 hr. Coffee Break and Poster Session</b>			
10.30				
11.00	<p><b>Symposium I: Neurofeedback for ADHD: State of the Evidence</b> Chair &amp; Organiser: Ute Strehl University of Tübingen</p> <p>11.30 <i>Long term effects after feedback of slow cortical potentials and of theta-beta-amplitudes in children with ADHD</i> Ute Strehl, Germany</p> <p>12.00 <i>Neurofeedback training of SCP in ADHD-specificity</i> Renate Drechsler &amp; Daniel Brandeis, Switzerland</p> <p>12.30 <i>Neurofeedback in children with attention deficit/hyperactivity disorder: A randomised controlled multisite study</i> Petra Studer, Germany</p> <p><i>Does Neurofeedback specifically improve impulsivity in ADHD? - Evidence from two prospective randomized studies</i> Martin Holtmann, Germany</p>	<p><b>11.00 – 13.00 hr. Workshop</b> <i>BrainMaster Technical Workshop</i> Tom Collura</p>	<p><b>Symposium II: Neurorehabilitation</b> Organiser: José León-Carrión University of Seville</p> <p><i>Outcome Studies in Neurorehabilitation</i> José León-Carrión, Spain</p> <p><i>Vegetative state and rehabilitation: Italian guidelines</i> Roberto Rago, Italy</p> <p><i>Visual Dysfunction following a Neurological Event: Post Trauma Vision Syndrome (PTVS)</i> William Padula, USA</p> <p><i>Rivastigmine treatment in cognitive and behavioral deficits after Traumatic Brain Injury</i> Claudio Perino, Italy S. Cannavero, Italy (Title TBC)</p>	
11.30				
12.00				
12.30				
13.00	<b>Invited Speakers II</b>			
13.30	Christa Neuper & Gert Pfurtscheller: <i>The Role of Brain Oscillations in Brain Computer Interface (BCI)</i> Graz University of Technology			

14.00	<b>Lunch</b>		<b>14.00 – 18.00 hr. Workshop</b> <i>Hands-on Computerized neuropsychological testing</i> Jesús Damas-López, Fernando Machuca-Murga, Juan M. Barroso y Martín & José León-Carrión University of Seville Center for Brain Injury Rehabilitation (C.RE.CER)		
14.30					
15.00					
15.30	<b>SAN Support Think-Tank CR</b>				
16.00	<b>Symposium III: ADHD: Cognitive Neuroscience</b> Chair: Andreas Muller University of Tübingen <i>Endophenotypes of ADHD in Children and Adults</i> Andreas Müller, Switzerland Roy John, USA (Title TBC) Guiseppe Chiarenza, Italy (Title TBC) Jordan Pop-Jordanov, Macedonia (Title TBC)	<b>Symposium IV: Application of fNIRS in Biomedicine</b> Chair: Banu Onaral Drexel University Kurtulus Izzetoglu, USA (Title TBC) Banu Onaral, USA (Title TBC) José León-Carrión, Spain (Title TBC) Christa Neuper, Austria (Title TBC)			
16.30					
17.00					
17.30					
18.00	<b>Poster Session</b>	<b>18.00 – 20.00 hr. Workshop</b> <i>Experienced-based Dutch &amp; SAN neurofeedback &amp; QEEG Training Curriculum</i> Berrie Gerrits & Wytze van der Zwaag Psychologenpraktijk Gerrits	<b>18.00 – 20.00 hr. Workshop</b> <i>Clinical Application of the Neurological Aspects of Lenses</i> Deborah Zelinsky The Mind-Eye Connection		
18.30	<b>Invited Speaker III</b> Georg Northoff: <i>Prefrontal Cortical Function during Perception and Judgment of Emotions in Depression</i> Otto-Von-Guericke University Magdeburg				
19.00					
19.30	<b>Special Presentation</b> José León-Carrión: <i>Infrascanner: a New Tool for Detecting Intracranial Haematomas in Situ</i> University of Seville				
20.00					
20.30					
21.00	<b>21:00 hr. Palace Reception</b>				

Friday May 9<sup>th</sup> 2008

Time						
09.00	<b>9.00 – 09.50 hr. Invited Speaker IV</b>					
09.30	Leslie Prichep: <i>QEEG prediction of senile dementia</i> New York University Medical Center					
10.00	<p><b>09.50 – 11.50 hr. Symposium V: Neurofeedback &amp; Performing Arts: Controlled Studies</b> Chair: John Gruzelier Goldsmith University of London <i>Alpha/theta versus SMR training at the Royal Academy of Dramatic Art.</i> John Gruzelier, Tony Steffert, Joseph Leach &amp; Trevor Thompson, UK <i>Alpha/theta versus heart rate variability coherence training and contemporary dance performance.</i> Trevor Thompson, Tony Steffert, Emma &amp; John Gruzelier, UK <i>Effects of EEG-Biofeedback training on professional singing performances</i> Boris Kleber, John Gruzelier &amp; Niels Birbaumer, Germany <i>Alpha/theta versus SMR training for novice singers/advanced instrumentalists.</i> Joseph Leach, Patricia Holmes, Linda Hirst &amp; John Gruzelier, UK</p>	<p><b>09.50 – 11.50 hr. Symposium VI: Cognitive Impairment</b> Chair: Lesley Parkinson Brainhealth, Diagnostic Clinic <i>Preliminary EEG and sMRI findings in Five South African Cases of Urbach-Wiethe</i> Barak Morgan, South Africa <i>Cognitive impairment evaluated with a clustering procedure and psychophysiological measures in differing Multiple Sclerosis clinical subgroups</i> Javier J. Gonzalez-Rosa, Spain <i>Neuropsychological assessment of attention in children with spina bifida and hydrocephalus</i> Gabriel G. de la Torre, Spain <i>A Theoretical Model and a Clinical Approach: Individually Optimized</i> Siegfried Othmer, USA</p>	<p><b>09.50 – 11.50 hr. Symposium VII: New Approaches I</b> Chair: Jordan Pop-Jordanov Macedonian Academy of Sciences and Arts <i>Early human vision as revealed by MEG</i> Selma Supek, Croatia <i>Cortical Networks Activation for Causal Inferences: An fMRI Investigation</i> Jose A. León Cascón, Spain <i>Neurological organization and developmental rate increase</i> María José Álvarez Alonso, Spain <i>Generating of special visual stimuli for neurofeedback</i> Olga Grechko, Israel <i>VR-assisted SMR neurofeedback.</i> Tony Steffert, Trevor Thompson, Joseph Leach &amp; John Gruzelier, UK</p>			
10.30						
11.00						
11.30						
12.00	<b>11.50 – 12.20 hr. Coffee Break &amp; Poster Session</b>					
12.30	<b>12.20 – 13.10 hr. Invited Speaker V</b> Arne Dietrich: <i>The Neuroscience of Creativity</i> American University of Beirut					
13.00	<b>13.10 – 14.00 hr. Invited Speaker VI</b>					
13.30	Juri Kropotov: <i>ERP-based independent components as biological markers of ADHD</i> Institute of the Human Brain of Russian Academy of Sciences, Norwegian University of Science and technology					

14.00	<b>14.00-16.00 hr. Lunch</b>		
14.30			
15.00	<b>SAN ANNUAL GENERAL MEETING</b>		
15.30			
16.00	<p><b>16.00 – 18.00 hr. Symposium VIII: EEG Correlates &amp; Learned Control</b>  Chair: Juri Kropotov  Institute of the Human Brain of Russian Academy of Sciences, Norwegian University of Science and technology  <i>Comparison of event-related desynchronisation and synchronisation spatio-temporal patterns during a response inhibition task in healthy controls and children with Fetal Alcohol Spectrum Disorder (FAS)</i>  Colin Andrew, South Africa  <i>Increase of beta and gamma bands of EEG in multiple sclerosis patients</i>  Manuel Vázquez, Spain  <i>Age-related alpha activity change differs for males and females and for low and high alpha frequency EEG patterns</i>  Olga Bazanova, Russia  <i>Differences in SMR amplitude after feedback with consonant and dissonant sounds</i>  Marinus Breteler, The Netherlands  <i>Active visual flicker training for neurotherapy of mental diseases with EEG alpha activity deficit</i>  Alexander Kaplan, Russia</p>	<p><b>16.00 – 18.00 hr. Symposium IX: Brain Computer Interfaces</b>  Chair: Crista Neuper  Graz University of Technology  <i>Navigation BCI based on Touch Evoked Potentials</i>  Jan van Erp, The Netherlands  <i>Comparison of Discrete-trial based SMR, SCP and GSR Training and the Interrelationship Between these Measures: Implication for BCI and NFB</i>  Desiree Spronk, The Netherlands  <i>Neuroscience and User Interfaces: Symbiosis Beyond BCI</i>  Jan van Erp, The Netherlands  <i>Stroke and BCI</i>  Ander Ramos &amp; Neils Birbaumer, USA and Germany  <i>fMRI and BCI</i>  Andrea Caria, Randa Sitaram &amp; Niels Birbaumer, Germany</p>	<p><b>16.00 – 18.00 hr. Workshop Hands-on Transcranial Doppler Sonography</b>  José María Domínguez-Roldán  University Hospital Virgen del Rocío</p>
16.30			
17.00			
17.30			
18.00	<b>18.00 – 18.30 hr. Coffee Break &amp; Poster Session</b>		
18.30	<b>18.30 – 19.15 hr. Invited Speaker VII</b>		
19.00	Andrew C. Papanicolaou: <i>Clinical Uses of Magnetoencephalography: an Overview</i> The University of Texas		
19.30	<b>19.15 – 20.00 hr. Invited Speaker VIII</b> Francisco Murillo-Cabezas : <i>Neuroimaging &amp; ICUs</i> Univerisity Hospital Virgen del Rocío, Seville		
20.00	<b>21.00 hr. Andalusian Alfresco Dinner (TBC)</b>		
20.30			
21.00			

Saturday May 10<sup>th</sup> 2008

Time				
09.30	<b>Invited Speaker IX</b>			
10.00	Eric Vermetten: <i>Windows of Opportunities in PTSD Neuroscience Research</i> University Medical Center, Utrecht			
10.30	<b>Symposium X: Controlled Optimal Performance Studies</b> Chairs: John Gruzelier Goldsmith University of London <i>Biofeedback Modalities for Better Achievement in High School Students</i> Nada Pop-Jordanova, Macedonia <i>The Effectiveness of Neurofeedback for Improving Attention</i> Alexander Logemann, The Netherlands <i>Optimising Microsurgical Skills with EEG-Neurofeedback</i> Tomas Ros, UK <i>Alpha-activity fluctuations in various hormonal states and associated with them musical performance proved differently in the opposite individual alpha peak frequency groups</i> Olga Bazanova, Russia	<b>Symposium XI: Advances in Acquired Brain Injury</b> Chair: José León-Carrión University of Seville <i>QEEG indexes for predicting recovery</i> (Speaker TBC) <i>Advances in rehabilitation of posture and equilibrium</i> (Speaker TBC) <i>Rehabilitation of memory in Brain Injury</i> (Speaker TBC) <i>The use of Citicholine in patients with Acquired Brain Injury</i> (Speaker TBC)	<b>10.30-14.00 hr. Workshop</b> <i>Application of the HBI normative database for diagnosis and neurotherapy with ADHD children</i> Andreas Müller, Switzerland	
11.00				
11.30				
12.00				
12.30	<b>Coffee Break &amp; Poster Session</b>			
13.00	<b>Invited Speakers X</b> Thomas Elbert: <i>Treatment of Tinnitus, derived from basic neuroscience</i> University of Konstanz			
13.30	Thomas Elbert & Maggie Schauer: <i>Psychophysiology of the defence cascade – Implications for the treatment of Post-Traumatic Stress Disorder (PTSD) and dissociative disorders</i> University of Konstanz			
14.00	<b>Lunch</b>			
14.30				

15.00	<b>COST B27 MANAGEMENT JP-J</b>					
15.30						
16.00	<p><b><i>Optimal Performance Curriculum Roundtable</i></b>  Chairs: John Gruzelier &amp; David Vernon  Goldsmith University of London &amp; Canterbury Christ Church University  John Gruzelier, UK  David Vernon, UK  Arne Dietrich, Lebanon  Juri Kropotov, Russia  Olga Bazanova, Russia  Nada Pop-Jordanova, Macedonia  Giancarlo Mirmillo, Italy  Siefried Othmer, USA</p>	<p><b>Symposium XII: Blast-Induced Brain Injury: The Challenges in Defining Mechanisms and Diagnosis and treatment Strategies</b>  Chair: Maria Mayorga  US Army  <i>Science of blast-induced injury and proposed mechanisms of brain injury</i>  Maria Mayorga, USA  <i>Traumatic brain injury in U.S. Military Personnel: diagnosis, protection and treatment</i>  Ronald Riechesr, USA  <i>Rehabilitation of traumatic brain-injury military and veteran personnel</i>  Karen Schwab, USA  <i>Mechanisms of blast-induced brain injury in large and small animal models</i>  Annette Saljo, Sweden</p>	<p><b>Symposium XIII: New Approaches II</b>  Chair: Nada Pop-Jordanova  Macedonian Academy of Sciences and Arts  <i>Multivariate proportional EEG biofeedback using live Z scores</i>  Thomas Collura  <i>Peripheral Biofeedback for Therapy of Stuttering Persons</i>  Wlodzimierz Klonowski, Poland  <i>A biofeedback system based on measurement of CO2 saturation</i>  Robert Stepien, Poland  <i>QEEG based rTMS treatment for depression: Efficacy and Treatment Effects on QEEG and Neuropsychology</i>  Martijn Arns, The Netherlands</p>			
16.30						
17.00						
17.30						
18.00				<b>18.00 – 18.30 hr. Coffee Break &amp; Poster Session</b>		
18.30	<b>18.30 - 19.15 hr. Invited Speaker XI</b>					
19.00	Roy John: <i>Consciousness: A Theory and Clinical Application</i> New York University					
19.30	<b>19.15 - 20.00 hr. Invited Speaker XII</b>					
	José María Domínguez-Roldán: <i>Diagnosis of Cerebral Death</i> University Hospital Virgen del Rocío					
20.00						
20.30						
21.00	<b>21:00 Conference Gala Dinner</b>					

Sunday May 11th 2008

Time				
09.00	<b>9.15 - 10.00 hr. Invited Speaker XII</b>			
09.30	Aribert Rothenberger (Title TBC)			
10.00	<p><b><i>Consciousness Roundtable</i></b>                      Chair: José León-Carrión                      University of Seville                      José León-Carrión, Spain                      Roy John, USA                      Andrew C. Papanicolaou                      Georg Northoff, Germany                      José M. Domínguez-Roldán, Spain</p>	<p><b>Symposium XIV: Controlled Treatment Studies</b>                      Chair: Soren Andersen                      Mental Fitness &amp; Forkningscenter, Denmark  <i>The Impact of Neurofeedback Vs. Biofeedback in Insomnia Patients: A Preliminary Study</i>                      Aisha Cortoos, Belgium  <i>The Effects of Neurofeedback in Dyslexia</i>                      Sabine de Ridder, The Netherlands  <i>QEEG based rTMS treatment for depression: Efficacy and Treatment Effects on QEEG and Neuropsychology</i>                      Martijn Arns, The Netherlands  <i>Inter-Hemispheric and Lateralized Frequency-Optimized Bipolar Training</i>                      Siegfried Othmer, USA  <i>Post WISC-R and TOVA Improvement with QEEG Guided Neurofeedback Training in Mentally Retarded: 23 Cases</i>                      Tanju Sürmeli, Turkey</p>		
10.30				
11.00				
11.30				
12.00	<b>Coffee Break</b>			
12.30	<b>Invited Speaker X. Closing Lecture</b>			
13.00	Linas Bieliauskas: <i>Implications of age-related cognitive and sensory changes for functional performance</i> University of Michigan Medical Center			
13.30	<b>Conference Close</b> José León-Carrión John Gruzelier			