

3rd International Conference on  
Functional (Psychogenic)  
Neurological Disorders  
September 6–8, 2017 Edinburgh, Scotland



PROGRAM

DUGALD STEWART  
1817-1891  
1817-1891

Welcome to the 3<sup>rd</sup> International Conference on Functional (Psychogenic) Neurological Disorders and to Edinburgh! We are delighted that the event appears to be a sellout. Most of you at the meeting will know that we have come a long way in the 20 years or so in this field. In the late 1990s, it was a topic that barely registered in academic articles, curricula and textbooks.

There has been exciting progress throughout the field from mechanism to treatment, from phenomenology to aetiology. The state of the art is reflected in the first volume of the Handbook of Neurology on Functional Disorders (volume 139), published in Oct 2016, which the three of us edited and to which most of the speakers at this meeting have contributed. This book, for the first time in a long time, assembled together information on all types of functional neurological disorders in one place. There is a 30% off code in this program (editors receive no additional royalties from purchases!) or your university library may subscribe for a free download.

We thought this represented an opportunity to hold a meeting where health professionals of all disciplines could meet to learn, teach and collaborate. We have been especially impressed with the very high quality of the abstracts submitted and would encourage everyone to look round the posters which will be changing every day.

Similar meetings, but with a specific focus on movement disorders were held in Atlanta in 2003 and in Washington DC in 2009 with support from the International Parkinson and Movement Disorder Society (MDS). Some residual funds from that 2009 meeting were used to help finance this 2017 meeting.

We are grateful to the following organizations and companies for supporting this meeting:

- National Institute of Neurological Disorders and Stroke
- International Parkinson and Movement Disorder Society
- American Epilepsy Society
- Scottish Government
- GE Healthcare

Our particular thanks to our organizing committee listed below and especially to Heather Vitale from the International Parkinson and Movement Disorder Society who has been dealing with the thousands of e-mails an event like this generates. We hope you enjoy it and that we can have another meeting in less than 8 years time!

Best wishes



*Mark Hallett*



*Jon Stone*



*Alan J. Carson*

*On behalf of the organizing committee:*

*Alan J. Carson*

*Anthony David*

*Marina AJ De Koning-Tijssen*

*Mark J. Edwards*

*Marjorie Garvey*

*Mark Hallett*

*W. Curt LaFrance, Jr.*

*Anthony E. Lang,*

*Codrin Lungu*

*Timothy R. Nicholson*

*Markus Reuber*

*Karen S. Rommelfanger*

*Jon Stone*



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## Course Venue

### **The Assembly Rooms Edinburgh - Music Hall and Ballroom**

54 George Street, Edinburgh EH2 2LR

Phone: +44 (131) 220-4348

[www.assemblyroomsedinburgh.co.uk](http://www.assemblyroomsedinburgh.co.uk)

## Wi-Fi

Complimentary Wi-Fi is available at The Assembly Rooms.  
Select “**Assembly Rooms Internet**” and enter your email address.

The City of Edinburgh also offers complimentary Wi-Fi through:

[www.edinburghfreewifi.com](http://www.edinburghfreewifi.com)

**Twitter - @fneuroforum    Facebook -@UKFNT**

## Faculty Listing

**Selma Aybek**

University Clinic for Neurology  
InselSpital Bern  
Bern, Switzerland

**David Baguley**

NIHR Nottingham Biomedical  
Research Unit in Hearing  
Nottingham, United Kingdom

**Gaston Baslet**

Brigham and Women's Hospital  
Harvard University  
Boston, MA, USA

**Fabrizio Benedetti**

University of Turin Medical School  
Plateau Rosa Labs  
Turin, Italy

**Kailash P. Bhatia**

Institute of Neurology  
University College London  
London, United Kingdom

**Richard J. Brown**

University of Manchester  
Manchester, United Kingdom

**Alan J. Carson**

Royal Edinburgh Hospital  
Robert Fergusson Unit  
Edinburgh, Scotland

**Trudie Chalder**

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London, United Kingdom

**Anthony David**

King's College London  
London, United Kingdom

**Marina AJ De Koning-Tijssen**

University Medical Centre Groningen  
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Groningen, Netherlands

**Quinton Deeley**

Institute of Psychiatry, Kings College  
London, National Autism Unit,  
Bethlem Royal Hospital, South London  
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**Joseph R. Duffy**

Mayo Clinic  
Rochester, MN, USA

**Roderick Duncan**

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**Barbara Ann Dworetzky**

Brigham and Women's Hospital  
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**Mark Hallett**

National Institute of Neurological  
Disorders and Stroke, National  
Institutes of Health  
Bethesda, MD, USA

**Ingrid Hoeritzauer**

Centre for Clinical Brain Sciences,  
University of Edinburgh  
Edinburgh, Scotland

**Joseph Jankovic**

Baylor College of Medicine  
Houston, TX, USA

## Faculty Listing

**Eileen Joyce**

Institute of Neurology  
University College London  
London, United Kingdom

**Richard A. A. Kanaan**

University of Melbourne  
Melbourne, Australia

**Diego Kaski**

University College London Hospitals  
London, United Kingdom

**Kathrin LaFaver**

University of Louisville  
Louisville, KY, USA

**W. Curt LaFrance, Jr.**

Alpert Medical School, Brown  
University; Rhode Island Hospital  
Providence, RI, USA

**Anthony E. Lang**

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Toronto, ON, Canada

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Institute of Psychiatry Psychology &  
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**Glenn Nielsen**

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**David L. Perez**

Departments of Neurology and  
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Harvard Medical School  
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**Stoyan Popkirov**

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Sheffield, United Kingdom

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Atlanta, GA, USA

**Primavera Spagnolo**

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**Jeffrey P. Staab**

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Rochester, MN, USA

**Jon Stone**

Centre for Clinical Brain Sciences  
University of Edinburgh, Western  
General Hospital  
Edinburgh, Scotland

**Michele Tinazzi**

University of Verona  
Verona, Italy

**Valerie Voon**

Behavioral and Clinical Neurosciences  
Institute, University of Cambridge  
Cambridge, United Kingdom

**Patrik Vuilleumier**

University Medical School, University  
Hospital, Swiss Affective Science  
Center, University of Geneva  
Geneva, Switzerland

**Sir Simon Wessely**

Institute of Psychiatry  
Kings College London  
London, United Kingdom

## Day 1 – Phenomenology Wednesday, September 6, 2017

*Registration will be available in Crush Hall starting at 07:00. Coffee and pastries will be available in the Ballroom/Poster Hall.*

<b>Welcome and Introductory Lecture</b> <i>08:30 – 10:30 • Music Hall</i>	
08:30 - 08:45	<b>Welcome</b> <i>Mark Hallett, Jon Stone and Alan J. Carson</i>
08:45 - 09:20	<b>Lessons from Shellshock</b> <i>Sir Simon Wessely</i>
09:25 – 09:50	<b>Neurological Diagnostic Criteria</b> <i>Anthony E. Lang</i>
09:50 – 10:10	<b>Psychiatric Classification</b> <i>David L. Perez</i>
10:10 – 10:30	<b>Discussion</b> <i>Mark Hallett, moderator</i>

### **COFFEE/TEA BREAK** *10:30 – 11:00 • Ballroom/Poster Hall*

<b>Clinical Update</b> <i>11:00 – 12:25 • Music Hall</i>	
11:00 – 11:25	<b>Clinical Overview of Psychogenic Movement Disorders</b> <i>Joseph Jankovic</i>
11:30 – 11:55	<b>Phenotyping in Functional Movement Disorders</b> <i>Marina AJ de Koning-Tijssen</i>
11:55 – 12:25	<b>Discussion</b> <i>Christopher G. Goetz, moderator</i>

**Poster Updates - Phenomenology**  
*12:30 – 12:45 • Music Hall*

*Selected poster presentations will provide a brief introduction to their posters. See page 10-16 for presenter detail.*

**LUNCH**  
*12:45 – 13:45 • Ballroom/Poster Hall*

**Poster Presentations - Phenomenology**  
*13:15 – 13:45 • Ballroom/Poster Hall*

**Day 1 – Phenomenology**  
**Wednesday, September 6, 2017**

**Clinical Update**

**13:45 – 15:10 • Music Hall**

13:45 – 14:10	<b>Functional Auditory Disorders</b> <i>David Baguley</i>
14:15 – 14:40	<b>Functional Eye Movement Disorders / Vision</b> <i>Diego Kaski</i>
14:45 – 15:10	<b>Dizziness and PPPD</b> <i>Jeffrey P. Staab</i>

**COFFEE/TEA BREAK**

**15:15 – 15:45 • Ballroom/Poster Hall**

**Clinical Update**

**15:45 – 16:40 • Music Hall**

15:45 – 16:10	<b>Functional Cognitive Symptoms</b> <i>Stoyan Popkirov</i>
16:15 – 16:40	<b>Functional Speech Disorders</b> <i>Joseph R. Duffy</i>

**Clinical Update**

**16:45 – 18:15 • Music Hall**

16:45 – 17:10	<b>Non-epileptic Attacks: Subjective Symptoms</b> <i>Markus Reuber</i>
17:15 – 17:40	<b>Non-epileptic Attacks: Semiology</b> <i>W. Curt LaFrance, Jr.</i>
17:45 – 18:15	<b>Discussion</b> <i>Gaston Baslet, moderator</i>

**DRINKS RECEPTION**

**18:15 – 19:30 • Ballroom/Poster Hall**

Please join your colleagues for whisky and networking following the educational sessions.

## Day 2 – Aetiology and Mechanism Thursday, September 7, 2017

*Registration will be available in Crush Hall starting at 08:00. Coffee and pastries will be available in the Ballroom/Poster Hall.*

Aetiology <i>08:30 – 10:30 • Music Hall</i>	
08:30 – 08:55	<b>Psychological Models and Discussion</b> <i>Alan J. Carson</i>
09:00 – 09:25	<b>Genetics and Epigenetics</b> <i>Primavera Spagnolo</i>
09:30 – 09:55	<b>Early Life Experiences and Life Events</b> <i>Selma Aybek</i>
10:00 – 10:30	<b>Discussion</b> <i>Roderick Duncan, moderator</i>

### COFFEE/TEA BREAK *10:30 – 11:00 • Ballroom/Poster Hall*

Pathophysiology 1 <i>11:00 – 12:25 • Music Hall</i>	
11:00 – 11:25	<b>Neurophysiology</b> <i>Mark Hallett</i>
11:30 – 11:55	<b>Predictive Brain Models</b> <i>Mark J. Edwards</i>
11:55 – 12:25	<b>Discussion</b> <i>Kailash P. Bhatia, moderator</i>

**Poster Updates – Aetiology and Mechanism**  
*12:30 – 12:45 • Music Hall*

*Selected poster presentations will provide a brief introduction to their posters. See page 10-16 for presenter detail.*

**LUNCH**  
*12:45 – 13:45 • Ballroom/Poster Hall*

**Poster Presentations – Aetiology and Mechanism**  
*13:15 – 13:45 • Ballroom/Poster Hall*



## Day 2 – Aetiology and Mechanism

### Thursday, September 7, 2017

#### Pathophysiology 2

**13:45 – 15:45 • Music Hall**

13:45 – 14:10	<b>Imaging Movement</b> <i>Patrik Vuilleumier</i>
14:15 – 14:40	<b>Imaging Agency</b> <i>Valerie Voon</i>
14:45 – 15:10	<b>Imaging Emotions and Memories</b> <i>Anthony David</i>
15:15 – 15:45	<b>Discussion</b> <i>Stephen Lawrie, moderator</i>

#### COFFEE/TEA BREAK

**15:45 – 16:15 • Ballroom/Poster Hall**

#### Pathophysiology 3

**16:15 – 17:45 • Music Hall**

16:15 – 16:40	<b>Hypnosis</b> <i>Quinton Deeley</i>
16:45 – 17:10	<b>Nature of the Placebo Effect</b> <i>Fabrizio Benedetti</i>
17:10 – 17:45	<b>Discussion</b> <i>Michele Tinazzi, moderator</i>

#### EVENING EVENT (TICKETED EVENT)

**19:30 – 22:30 • Royal College of Physicians Edinburgh – Great Hall and Library**

Join us for an evening of food, wine, and entertainment in the historic setting of the

Royal College of Physicians Edinburgh  
9 Queen Street, Edinburgh EH2 1JQ

Entertainment will include a bagpipe welcome from Calum White, entertainment from Andrew McKinley – elite magician and mystery artist, and the musical stylings of the Roger Cull Trio.

Visit the Registration Desk for additional information or to inquire about tickets.

## Day 3 – Treatment

### Friday, September 8, 2017

*Registration will be available in Crush Hall starting at 08:00. Coffee and pastries will be available in the Ballroom/Poster Hall.*

Setting the Scene <i>08:30 – 09:25 • Music Hall</i>	
08:30 - 08:55	<b>Attitudes and Ethics</b> <i>Karen S. Rommelfanger</i>
09:00 - 09:25	<b>Discussion</b> <i>Richard A. A. Kanaan, moderator</i>

Initial Explanation/Assessment <i>09:30 – 10:30 • Music Hall</i>	
09:30 - 09:55	<b>The Consultation as Treatment</b> <i>Jon Stone</i>
10:00 - 10:25	<b>Discussion</b> <i>Barbara Ann Dworetzky, moderator</i>

### COFFEE/TEA BREAK *10:30 – 11:00 • Ballroom/Poster Hall*

Physical/Multidisciplinary Treatment <i>11:00 – 12:30 • Music Hall</i>	
11:00 – 11:25	<b>Physiotherapy</b> <i>Glenn Neilsen</i>
11:30 – 11:55	<b>Inpatient Treatment</b> <i>Kathrin LaFaver</i>
12:00 – 12:30	<b>Discussion</b> <i>Alberto J. Espay, moderator</i>

**Poster Updates – Treatment**  
*12:30 – 12:45 • Music Hall*

*Selected poster presentations will provide a brief introduction to their posters. See page 10-16 for presenter detail.*

**LUNCH**  
*12:45 – 13:45 • Ballroom/Poster Hall*

**Poster Presentations - Treatment**  
*13:15 – 13:45 • Ballroom/Poster Hall*

**Day 3 – Treatment**  
**Friday, September 8, 2017**

**Psychological and Pharmacological Treatment**

**13:45 – 15:45 • Music Hall**

13:45 – 14:10	<b>Pharmacological Therapy</b> <i>Eileen Joyce</i>
14:15 – 14:40	<b>Cognitive Behavioral Therapy</b> <i>Laura H. Goldstein</i>
14:45 – 15:10	<b>Psychodynamic Psychotherapies</b> <i>Richard J. Brown</i>
15:15 – 15:45	<b>Discussion</b> <i>Trudie Chalder, moderator</i>

**COFFEE/TEA BREAK**

**15:45 – 16:15 • Ballroom/Poster Hall**

**Outcome**

**16:15 – 17:30 • Music Hall**

16:15 – 16:30	<b>Prognosis</b> <i>Jeannette M. Gelauff</i>
16:35 – 17:00	<b>How Should We Measure Outcome?</b> <i>Timothy R. Nicholson</i>
17:05 – 17:30	<b>Discussion</b> <i>Ingrid Hoeritzauer, moderator</i>

**Future Directions and Closing Remarks**

**17:30 – 17:50 • Music Hall**

17:30 – 17:35	<b>American Neuropsychiatric Association Consensus Guidelines on FND</b> <i>Valerie Voon</i>
17:35 - 17:40	<b>International Parkinson and Movement Disorder Society (MDS) Functional Motor Disorder Special Interest Group</b> <i>Kathrin LaFaver and Alberto J. Espay</i>
17:40-17:50	<b>Future Directions and Closing Remarks</b> <i>Mark Hallett, Jon Stone and Alan J. Carson</i>

## Abstracts – Phenomenology

### Wednesday, September 6

#### **100 - Baseline characteristics and outcome of pediatric onset psychogenic non-epileptic seizures**

*Anne Sofie Hansen, Charlotte Rask, Jakob Christensen, René Nielsen (Aalborg, Denmark)*

**PODIUM PRESENTER**

#### **101 - Experience of 32 patient with functional movement disorders at the Department of Neurology, Ege University Medical Faculty, Izmir Turkey**

*Ahmet Acarer, Zafer Colakoglu (Bornova Izmir, Turkey)*

#### **102 - Emotion regulation and post-traumatic stress in patients with psychogenic non-epileptic seizures**

*Ruifan Zeng, Lorna Myers, Marcelo Lancman (New York, NY, USA)*

#### **103 - Functional dystonia: Experience in a US specialised dystonia clinic**

*Christopher Stephen, David Perez, Nutan Sharma (Boston, MA, USA)*

#### **104 - Sudden Unexpected Death in Opera**

*Michael Trimble, Dale Hesdorffer (New York, NY, USA)*

#### **105 - Referrals to acute neurology and stroke teams in Leeds with functional neurological symptoms: characterising current service use.**

*Stefan Williams, Melissa Maguire, Jane Alty, Christopher Graham (Ilkley, United Kingdom)*

#### **106 - Functional neurological features in Parkinson disease: a multicenter case-control study**

*Benjamin Wissel, Alok Dwivedi, Danielle Chin, Aristide Merola, Cara Jacob, Andrew Duker, Jennifer Vaughan, Lilia Lovera, Kathrin LaFaver, Ariel Lev, Anthony Lang, Francesca Morgante, Melissa Nirenberg, Christopher Stephen, Nutan Sharma, Alberto Romagnolo, Leonardo Lopiano, Bettina Balint, Kailash Bhatia, Alberto Espay (Cincinnati, OH, USA)*

#### **107 - The impact of non-motor symptoms on health-related quality of life in patients with functional movement disorders**

*Gabriela Vechetova, Matej Slovak, Pavel Dušek, Tomáš Nikolai, Eva Bolceková, Zuzana Hanzlíková, Evžen Ružicka, Tereza Serranová (Prague, Czech Republic)*

**PODIUM PRESENTER**

#### **108 - Attitudes and Knowledge of Local GPs to Patients with Functional Seizures**

*Ruth Child, Marco Mula, Mark Edwards, Mahinda Yogarajah (London, United Kingdom)*

#### **109 - Utilization of Anion gap to differentiate between psychogenic non-epileptic seizures and epileptic seizures in the emergency setting**

*Yi Li, Liesl Matzka, Louise Maranda, Daniel Weber (Worcester, MA, USA)*

**PODIUM PRESENTER**

#### **110 - Functional Sensory Symptoms Progressing Into Cenesthopathy --- Was It Preventable? A Case Report**

*Hidehiro Shibayama (Chiba, Japan)*

#### **111 - Self-assessed depression, anxiety, fatigue and depersonalisation in functional and organic dystonia**

*Rachel Newby, Jane Alty, D. R. Jamieson, Stephen Smith, Peter Kempster (Melbourne, VIC, Australia)*

#### **112 - Minimum voluntary EMG burst duration: Implications for electrodiagnostic investigation of movement disorders**

*Alexis Collins, Steven Brown, Ghaith Tarawneh, Mark Baker (Newcastle upon Tyne, United Kingdom)*

#### **113 - The risk of perceived stigma in psychogenic nonepileptic seizures vs. epilepsy**

*Gregg Rawlings, Ian Brown, Markus Reuber (Sheffield, United Kingdom)*

**114 - Electrophysiological Characteristics of Voluntary Orthostatic Leg Tremor**

*Alexis Collins, Marisa Brum, Georgia Collins, Ghaith Tarawneh, Mark Baker (Newcastle upon Tyne, United Kingdom)*

**115 - Speech, language and swallowing impairments in functional neurological symptom disorder: A scoping review**

*Caroline Barnett, Christina Smith, Jean Armes (Birmingham, United Kingdom)*

**116 - Presence of multiple comorbid functional symptoms impacts Psychogenic Nonepileptic Seizures (PNES) outcomes**

*Gaston Baslet, Benjamin Tolchin, Mary O'Neal, John Sullivan, Carolyn Lee, Molly O'Reilly, Barbara Dworetzky (Boston, MA, USA)*

**117 - An Exploration of the Long-term Outcome for Patients with Functional Memory Disorder and Depressive Pseudodementia**

*Josef Mahdi, Kirsty Harkness, Laura Kelly, Jessica Collins, Evaldina Incopte, Markus Reuber, Daniel Blackburn (Sheffield, United Kingdom)*

**118 - Can Free Association Narrative Interviews help to extend understandings of Psychogenic Non-Epileptic Seizures (PNES)?**

*Marian Peacock, Jon Dickson, Markus Reuber, Richard Grunewald, Paul Bissell, Steph Howlett (Sheffield, United Kingdom)*

**119 - Attitudes and nature of diagnostic disputes made by patients with Functional Neurological Disorders in secondary care**

*Piriyanan Ananthavarathan, Shanika Samarasekera (Barnet, Hertfordshire, United Kingdom)*

**120 - Predictors of Quality of Life in Children with PNES: The Impact of PNES Frequency**

*Lindsey Elliott, Lauren Bolden, Aaron Fobian (Birmingham, AL, USA)*

**121 - Pitfalls of Diagnosing Functional Neurological Disorders in the Emergency Ward**

*Carlo Dallochio, Carla Arbasino, Federica Bombieri, Angela Marotta, Michele Tinazzi (Voghera, Italy)*

**122 - Demographic and clinical characteristics of patients with functional motor disorders: the prospective Salpêtrière cohort**

*Nicolas Villain, Francine Mesrati, Lionel Naccache, Marie Vidailhet, Emmanuel Flamand-Roze, Bertrand Degos, Béatrice Garcin (PARIS, France)*

**123 - Functional movement disorders and associated psychiatric comorbidity in US veterans**

*Joel Mack, Joseph Quinn, Brenna Lobb, Susan O'Connor (Portland, OR, USA)*

**PODIUM PRESENTER**

**124 - Systematic Review: Electrophysiology in Movement Disorders**

*Steven Brown, Mark Baker (Milton Keynes, United Kingdom)*

**125 - Semiological Classification Of Psychogenic Nonepileptic Seizures With The Video-Eeg Study In A Reference Epilepsy Surgery Center In Venezuela**

*Anilu Daza Restrepo, Rosaly Gonzalez Zerpa, Arnoldo Soto Reyes, Guilca Contreras, Angelica Aroni Paytan, Valentin Sainz, Herman Scholtz (Caracas, Venezuela)*

**PODIUM PRESENTER**

**126 - Withdrawn by author**

**127 - Current projects of the Functional Neurological Disorders Research Group (FRG) University of Edinburgh**

*Jon Stone, Alan J. Carson, on behalf of the FRG including Jeannette Gelauff, Ingrid Hoeritzauer, Laura McWhirter, Paula Gardiner, Lindsey McGregor, H Callaghan (Edinburgh, Scotland)*

**128 - Cryptogenic Drop Attacks revisited – evidence of overlap with Functional Neurological Disorder**

*Ingrid Hoeritzauer, Alan J. Carson, Jon Stone (Edinburgh, Scotland)*

**129 - Are Functional Neurological Disorder Symptoms Dependent Upon the Patient's Understanding of the Symptom?**

*Emily Cox, Ingrid Hoeritzauer, Laura McWhirter, Jakov Tiefenbach, Mhairi Paterson, Alistair Crawford, Komal Ahmed, Liam Delaney, Abigail Southgate, Jon Stone (Edinburgh, Scotland)*

**130 - Cauda Equina Syndrome (CES): What happens to the patients who have CES symptoms but negative scans?**  
*Ingrid Hoeritzauer, Savva Pronin, Alan J. Carson, Patrick Statham, Andreas K. Demetriades, Jon Stone (Edinburgh, Scotland)*

## Abstracts – Aetiology and Mechanism Thursday, September 7

**200 - Gray matter differences in patients with functional movement disorders**

*Carine Maurer, Kathrin LaFaver, Gaurang Limachia, Geanna Capitan, Rezvan Ameli, Stephen Sinclair, Steve Epstein, Silvina Horovitz, Mark Hallett (Bethesda, MD, USA)*

**PODIUM PRESENTER**

**201 - Withdrawn by author**

**202 - Emotion processing in patients with Functional Neurological Disorders: comparing Nonepileptic Attacks with other Functional Neurological Symptoms**

*Isobel Williams, Liat Levita, Markus Reuber (Sheffield, United Kingdom)*

**203 - Severity and Correlates of Illness Anxiety in Three Functional Neurologic Disorders**

*Mary Widmeyer, Jeffrey Staab (Rochester, MN, USA)*

**204 - Abnormal beta power is a hallmark of explicit movement control in functional movement disorders**

*Tiago Teodoro, Anne Marthe Meppelink, Simon Little, Robert Grant, Glenn Nielsen, Antonella Macerollo, Isabel Parees (London, United Kingdom)*

**PODIUM PRESENTER**

**205 - A case control study of 322 functional motor disorder patients utilising a psychiatric case register**

*Nicola O'Connell, Anthony David (London, United Kingdom)*

**PODIUM PRESENTER**

**206 - Structural MRI changes in cerebral psycho-motor networks in functional tremor**

*Sebastian Franthal, Stephan Sailer, Nina Homayoon, Mariella Koegl, Petra Katschnig-Winter, Karoline Wenzel, Reinhold Schmidt, Petra Schwingenschuh (Graz, Austria)*

**207-Salience Network Structural Alterations Linked to Health-Related Quality of Life in Functional Neurological Disorder**

*David Perez, Benjamin Williams, Nassim Matin, W. Curt LaFrance, Victor Costumero-Ramos, Gregory Fricchione, Jorge Sepulcre, Matcheri Keshavan, Bradford Dickerson (Boston, MA, USA)*

**208 - Metacognition of Visuomotor Performance In Conversion Disorder**

*Indrit Sinanaj, Rebekah Blakemore, Julian Klug, Silvio Galli, Yann Cojan, Alexandre Berney, Selma Aybek, Patrik Vuilleumier (Geneva, Switzerland)*

**209 - Response inhibition and conflict in functional weakness**

*Graeme Hammond-Tooke, Karleigh O'Connor (Dunedin, New Zealand)*

**PODIUM PRESENTER**

**210 - Is functional weakness associated with neural correlates in imaging studies? A systematic review of the evidence**

*Lori Black (Cardiff, United Kingdom)*

**211 - Attention and functional movement disorders: Its role in symptom generation and sense of agency**

*Anne-Catherine Huys, Mark Edwards, Patrick Haggard, Kailash Bhatia (London, United Kingdom)*

**212 - The nocebo effect: how headache pain is generated by biological, psychogenic and social factors**

*Diletta Barbiani, Eleonora Camerone, Fabrizio Benedetti (Turin, Italy)*

**213 - Are there gender differences in psychogenic non-epileptic seizures: demographically, clinically and psychologically**

*Lorna Myers, Robert Trobliger, Kirsty Bortnik, Marcelo Lancman (New York, NY, USA)*

**214 - The truth about cognitive impairment in functional motor disorders: an experimental deception study with the Guilty Knowledge Task**

*Benedetta Demartini, Roberta Ferrucci, Diana Goeta, Fabiana Ruggiero, Alberto Priori, Orsola Gambini (Milan, Italy)*

**215 - Anorexia Nervosa and Functional Motor Symptoms: two faces of the same coin?**

*Benedetta Demartini, Diana Goeta, Luigi Romito, Simona Anselmetti, Sara Bertelli, Orsola Gambini (Milan, Italy)*

**216 - The Emotional Component of Pain Is Impaired In Functional Dystonia**

*Francesca Morgante, Angela Matinella, Elisa Andrenelli, Cosimo Allegra, Carmen Terranova, Paolo Girlanda, Michele Tinazzi (Messina, Italy)*

**217 - Attention Bias in Adults with Non Epileptic Seizures**

*Clive Bellis, Jason Price (Durham, United Kingdom)*

**218 - How do Patients with epilepsy differ from patients with PNES: initial formulation of a paradigm shift**

*David Anderson, Maria Damianova, Skye Hanekom, Marilyn Lucas (Johannesburg, South Africa)*

**219 - Higher volume of the supplementary motor area in patients with functional movement disorders: a VBM study**

*Pavel Dusek, Robert Jech, Matej Slovak, Karsten Mueller, Jirí Keller, Filip Ružicka, Tereza Serranová (Prague, Czech Republic)*

**220 - Relationship between traumatic experiences and psychogenic non-epileptic seizures**

*Skye Hanekom, Maria Damianova, David Anderson (Johannesburg, South Africa)*

**221 - Functional neuroimaging of functional movement disorders (FMD) before and after a rehabilitation program**

*Leonard Faul, Brendan Depue, Alexandra Jacob, Darryl Kaelin, Alberto Espay, Kathrin LaFaver (Louisville, KY, USA)*

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**222 - Withdrawn by author**

**223 - A comparison between the prevalence of alexithymia in patients with psychogenic non-epileptic seizures, epilepsy and the healthy population - a systematic review of the literature**

*Bruno Silva, Ana Sequeira (Lisbon, Portugal)*

**224 - Identifying contributing factors in individual patients with a (functional) tremor**

*Gerrit Kramer, Marina De Koning-Tijssen (Groningen, Netherlands)*

**225 - Illness attention and somatic interpretations in functional neurological disorder and chronic fatigue syndrome**

*Roxanne Keynejad, Alicia Hughes, Susannah Pick, Colette Hirsch, Rona Moss-Morris, Trudie Chalder, Timothy Nicholson (London, United Kingdom)*

**226 - Altered brain metabolism associated with functional motor disorder**

*Ismael Conejero, Laurent Collombier, Emilie Olié, Philippe Courtet, Mocrane Abbar, Eric Thouvenot (Montpellier, France)*

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**227 - Psychic causes of autobiographical amnesia: A study of 27 cases**

*Jessica Collins, Hans Markowitsch (Sheffield, United Kingdom)*

**228 - Preoperative Quantitative Evaluation of Dysfonctinal Determinants in Abnormal Head Postures**

*Emily Sanrey (Montpellier, France)*

**229 - Cognitive Behavioral Therapy for Functional Tremor: Clinical and Functional Magnetic Resonance Study**

*Alberto Espay, Thomas Maloney, Jennifer Vannest, Erin Neefus, Jane Allendorfer, Anthony Lang, Jerzy Szaflarski (Cincinnati, OH, USA)*

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## Abstracts – Treatment

### Friday, September 8

#### **300 - Long Term Result and Safety of the Subthalamic Nucleir DBS of Advanced Parkinson's Disease: An Eight Year Follow Up Study**

*Qiyu Guo, Lulu Jiang, Shaohua Xu, Chen Wanru, Wenbiao Xian, Yanmei Liu, Jinglong Liu, Ling Chen (Guangzhou Shi, Peoples Republic of China)*

#### **301 - Characteristics and outcomes of children with conversion disorder admitted to inpatient rehabilitation unit, a retrospective study**

*Ashlee Bolger, Andrew Collins, Michelle Michels, David Pruitt (Loveland, OH, USA)*

#### **302 - Outcomes of a Five Week Intensive Multidisciplinary Rehabilitation Outpatient Programme for people with Functional Neurological Symptoms**

*Hannah Louissaint, Jasbir Ranu (London, United Kingdom)*

#### **303 - Functional Outcomes of a Four Week Intensive Multidisciplinary Rehabilitation Programme for people with Functional Neurological Symptoms**

*Hannah Louissaint, Jasbir Ranu (London, United Kingdom)*

#### **304 - A novel treatment protocol for Functional Neurological Symptom Disorder (FNSD): A retrospective consecutive case series**

*Matt Richardson (Dunedin, New Zealand)*

#### **305 - Impact of transcranial magnetic stimulation in functional movement disorders: cortical modulation or behavioral effect?**

*Beatrice Garcin, Francine Mesrati, Iulia Iliescu, Cécile Hubsch, Lionel Naccache, Emmanuel Roze, Bertrand Degos (Paris, France)*

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#### **306 - EMDR in the treatment of functional speech disorders**

*Miriam Lomas (Durham, United Kingdom)*

#### **307 - Treatment of patients suffering from functional neurological motor dysfunction**

*Peter Arlien-Søborg, Hans Henrik Holmberg Olsen, Lis Albrechtsen (Copenhagen, Denmark)*

#### **308 - A multidisciplinary clinic for functional movement disorders (FMD): One-year experience from a single center**

*Alexandra Jacob, Courtney Smith, Megan Jablonski, Abbey Roach, Kathy Paper, Darryl Kaelin, Diane Stretz-Thurmond, Kathrin LaFaver (Louisville, KY, USA)*

#### **309 - Documentation Bias in Functional Neurological Disorders: Comparing the Prevalence and Documentation of Suspected FND with Other Common Neurological Disorders**

*Katherine Werbaneth, Katie Emily Leaver, Kim Bullock (Palo Alto, CA, USA)*

#### **310 - Virtual Reality Delivered Mirror Visual Feedback for Functional Neurological Disorder**

*Kim Bullock, Andrea Won -Stevenson, Jeremy Bailenson (Stanford, CA, USA)*

#### **311 - Botulinum Neurotoxin (BoNT) for treatment of functional (psychogenic) jerky movement disorders: a randomized placebo-controlled clinical trial**

*Yasmine Dreissen, Joke Dijk, Jeannette Gelauff, Evelien Zoons, Maria Fiorella Contarino, Rodi Steenbergen-Zutt, Bart Post, Daniel Van Poppelen, Alexander Munts, Johannes Speelman, Rob De Haan, Johannes Koelman, Marina De Koning-Tijssen (Amsterdam, Netherlands)*

#### **312 - Treatment of four 14- year old girls with non-epileptic seizures (NES) in the same school where successful treatment of the index case had a significant impact on the others**

*Maria Hadji-Michael, Eve McAllister, Tara Murphy, Isobel Heyman (London, United Kingdom)*



- 313- Diagnosing psychogenic nonepileptic seizures: video-EEG monitoring, suggestive seizure induction and diagnostic certainty**  
*Stoyan Popkirov, Johannes Jungilligens, Wenke Grönheit, Jörg Wellmer (Bochum, Germany)*
- 314 - Outcome data from a functional seizure psychology service**  
*Tammy Walker (Nottingham, United Kingdom)*
- 315-Multidisciplinary Treatment and Outcome Registry Collaboration for Dystonia and Functional Movement Disorders**  
*Alyssa Elder, Julie Hershberg, Allie Southam, Sarah Patejak, Arik Johnson, Allan Wu (Los Angeles, CA, USA)*
- 316-Neuropsychiatric Factors Linked to Adherence and Short-Term Prognosis in a US Functional Neurological Disorders Clinic: a Retrospective Cohort Study**  
*Sean Glass, Nassim Matin, Benjamin Williams, Julie Mello, Christopher Stephen, Sigrid Young, Janet Callahan, W. Curt LaFrance, David Perez (Boston, MA, USA)*
- 317 - Outcomes of functional neurological disorder patients requiring physiotherapy and neuropsychology**  
*Dharsha Navaratnam, Alexander Downie, Megan Broughton, Rian Dob, Alexander Lehn (Brisbane, QLD, Australia)*
- 318 - Outcomes of a Time Limited Physiotherapy Service within a Dedicated Functional Neurological Disorder Clinic**  
*Dharsha Navaratnam, Anthea Goslin, John Fitzgerald (Brisbane, QLD, Australia)*
- 319 - Survey of Perceptions of Health Practitioners regarding Functional Neurological Disorders (FND)**  
*Joanne Bullock-Saxton, Peter Newcombe, Jon Stone, Alan Carson, Alexander Lehn (South Brisbane, QLD, Australia)*
- 320 - Development of a novel method of “explanation as treatment” with neuropsychological assessment and debriefing (NAD) for functional movement disorders (FMD)**  
*Hiral Shah, Jason Krellman, Stephanie Assuras (New York, NY, USA)*
- 321 - Risk Stratification for individuals with functional movement disorders (FMD)**  
*Hiral Shah, Jason Krellman, Stephanie Assuras (New York, NY, USA)*
- 322 - Eye Movement Desensitisation and Reprocessing (EMDR) as a clinical intervention in the treatment of dissociative seizures**  
*Abrar Hussain (Bracknell, Berkshire, United Kingdom)*
- 323 - Healthcare professionals’ experiences of providing inpatient care for patients with functional neurological symptoms: Interdisciplinary focus group interviews**  
*Guðbjörg Andrésdóttir, Aldís Hauksdóttir, Þórdís Hjartardóttir, Helga Jónsdóttir, Marianne Klinke (Reykjavík, Iceland)*
- 324 - Functional disorder in the Department of Neurology in the National University hospital of Iceland in 2014-2015 and Physiotherapists’ knowledge of the disorder**  
*Guðbjörg Andrésdóttir, Agnes Snorradóttir, Freyja Barkardóttir, Þjóðbjörg Guðjónsdóttir (Reykjavík, Iceland)*
- 325 - Lessons from Constraint-Induced Therapy (CI therapy) for Rehabilitating Behaviorally-Maintained Motor Deficits**  
*Victor Mark, Edward Taub, David Morris, Gitendra Uswatte (Birmingham, AL, USA)*
- 326 - Service Evaluation of a Functional Neurological Disorder Team in the Highlands of Scotland**  
*Heather Ireland, Emma Burton (Inverness, United Kingdom)*
- 327 - Functional neurological symptoms: Piloting a group protocol**  
*Nicole Scheiner, Amanda Agyare (Watford, United Kingdom)*
- 328 - Two studies of inpatient rehabilitation outcomes for patients with functional neurological disorders (FND)**  
*Philipp Yates, Timothy Harrower, Elizabeth Parry, Jac Dendle (Devon, United Kingdom)*
- 329 - Functional Neurological Disorders and Patient Reported Experiences of the NHS**  
*Mahinda Yogarajah, Ibrahim Chowdhury, Tiago Teodoro, Mark Edwards (London, United Kingdom)*

**330 - The Archeology of treatment of functional neurological symptom (conversion) disorders in Castle Hornberg in Black Forrest: From torpillage and faradic current treatment to TENS (Transcutaneous electrical nerve stimulation)**

*Hans Markowitsch, Hans Markowitsch, Hans Markowitsch, Angelica Staniloiu, Angelica Staniloiu, Angelica Staniloiu, Monika Finke, Andreas Wahl-Kordon (Baden-Baden, Germany)*

**331 - Evaluation of a multidisciplinary FND Workshop for patients and their family members**

*Sarah Cope, Mark Edwards, Kate Holt, Norman Poole, Shakiba Azizi, Niruj Agrawal (London, United Kingdom)*

**332 - Functional Neurological Symptoms and Idiopathic Intracranial Hypertension**

*Jan Coebergh, Mark Edwards (Hinchley Wood, United Kingdom)*

**333 - Guided self-help treatment for Functional Neurological Symptoms: Internet-based Psychoeducation**

*Sue Humblestone, Michael Moutoussis (London, United Kingdom)*

**334 - Multidisciplinary rehabilitation for patients with Functional Neurological Disorder (FND)**

*Monica Aasnes, Kerstin Wahman (Solna, Sweden)*

**335 - A report on a new pilot day hospital treatment programme for Functional Neurological Disorders at the Maudsley / Bethlem Royal Hospital**

*Simon Harrison, Yvonne Hsieh, Vaida Gudeliunaite, Maria Avraam, Paul Davies (London, United Kingdom)*

**336 - A striking case of a functional quadriplegia – what next when functional disorders are resistant to physiotherapy?**

*Alexandra Boogers, Ludo Vanopdenbosch (Aalst, Belgium)*

**337 - Visual-feedback in Psychogenic Movement Disorders & Its Management**

*Sunita Gudwani, S Kumaran, Rajesh Sagar, Gaurishankar Kaloiya, Madhuri Behari (New Delhi, India)*

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**338 - Embedded Neuropsychiatric services within a Comprehensive Epilepsy Program: Improving access to early assessment for PNES**

*Adith Mohan, Rebecca Koncz, Ernest Somerville, Christian Zentner, Hanka Laue-Gizzi, Perminder Sachdev (Randwick, NSW, Australia)*

**339 - Motor retraining program by means of a smartphone for patients with functional neurological symptoms: Protocol for a feasibility study**

*Federica Bombieri, Lucia Ricciardi, Angela Marotta, Mirta Fiorio, Carlo Dallochio, Michele Tinazzi, Benedetta Demartini (Verona, Italy)*

**340 - Early Experience of the First Multidisciplinary Unit for Functional Movement Disorders in Spain**

*Isabel Parees, Leticia Martinez, Monica Kurtis, Marta Sanz, Blanca Borda, Carmen Vicente, Pilar Rada, Beatriz Martin, Javier Perez-Sanchez, Montserrat Garcia, Oriol Franch (Madrid, Spain)*

**341- Informal caregiver (CG) behavior and the mutual impact on the functional patient: An analysis of a psychotherapeutic group offered to the CG**

*Eduardo Mutarelli, Ymara Lucia Camargo Vitolo, Bruna Bartorelli (Sao Paulo, Brazil)*

**342 - Treatment of Functional Movement Disorders in an Outpatient Rehab Setting: A Pilot Study**

*Daniel Schneider, Shaloo Choudhary, Mary Jo Bronson (New Brunswick, NJ, USA)*

**343 - Withdrawn by author**

**344 - The rehabilitation of functional neurological (symptom) disorders and dissociative disorders after a mild TBI and mild TBI prognosis**

*Jessica Collins, Hans Markowitsch (Sheffield, United Kingdom)*

**345-Treatment of chronic functional hemiplegia with time-limited inpatient multidisciplinary team (MDT) intervention – a case report**

*Anna Rutherford (Salford, United Kingdom)*

**346 - Expectation-based Functional Symptom Therapy for the Inpatient Management of FND**

*Lindsey MacGillivray, Sarah Lidstone, Mateusz Zurowski, Anthony Lang (Toronto, ON, Canada)*

**348 - Efficacy of Stimulus Control and Retraining Therapy (SCRT) for Pediatric Patients with PNES**

*Aaron Fobian, Lindsey Elliott, Christina Mueller, Lauren Bolden, Jerzy Szaflarski (Birmingham, AL, USA)*

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**349 - The Effects of Group Psychodynamic Therapy on Psychological Characteristics and Psychogenic Non-Epileptic Seizure Frequency in Patients with Functional Neurological Symptom Disorder**

*Juliana Lockman, Ariela Karasov, Craig Forte, John Barry, Kim Bullock, Sepideh Bajestan (Menlo Park, CA, United States)*

Full Abstracts are available online

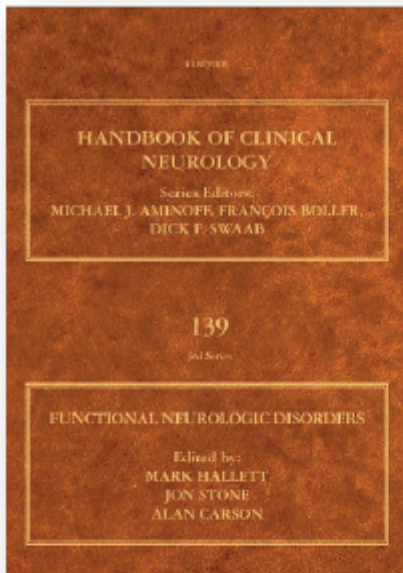
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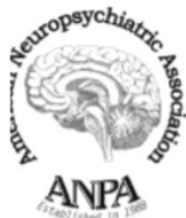
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**fndaction.org.uk** is a patient-led organisation for functional neurological disorders and dissociative (non-epileptic) attacks focusing on the UK



**nonepilepticattackdisorder.org.uk** is part of fndaction specific for non-epileptic attacks



**fnddimensions.org** is a patient-led organisation that focuses especially on creating a network of 'peer support groups' across the UK either in face to face meetings or online via methods such as Skype

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An international forum for health professionals involved in functional neurological symptoms and disorders. Sign up to [www.fnforum.org](http://www.fnforum.org).



### neurosymptoms.org

A self-help site for patients run by Jon Stone.



### nonepilepticattacks.info

A self-help site for patients run by Markus Reuber and colleagues