Sponsored by:

International Federation of CLINICAL NEUROPHYSIOLOGY

Endorsed by :

International Parkinson and Movement Disorder Society

Pan American Movement Disorders Clinical Neurophysiology Course
Toronto, Canada ·May 1-3, 2025

DAY 1

Session 1: Overview of Clinical Neurophysiology in Movement Disorders	
8:20 - 8:30	**Welcome from Course Directors**
8:30 - 8:50	**Neurophysiology: An Extension of Clinical Assessment to Categorize Movement Disorders** *Robert Chen* – Toronto, Canada
8:50 - 8:55	Moderated Question and Answer
8:55 - 9:15	**Overview of Basic and Advanced Neurophysiological Techniques** *Talyta Grippe* – Toronto, Canada
9:15 - 9:20	Moderated Question and Answer
9:10 – 9:40	**First steps to set up a Movement Disorders Neurophysiology lab: Which equipment do I need and How to do initial signal processing?** *Marcus Callister* – Toronto, Canada *Felipe Vial* – Santiago, Chile
9:50 - 10:00	Moderated Question and Answer
10:00 – 10:30	COFFEE BREAK
Session 2: Jerky Movements	
10:30-10:50	**Clinical Neurophysiology to Differentiate Jerky Movements – Basic physiology** *Robert Chen* – Toronto, Canada
10:50– 10:55	Moderated Question and Answer
10:55-11:15	**Clinical Neurophysiology for Myoclonus: Different subtypes** ***Specific physiology for diagnosis of each subtype*** *Shabbir Merchant* – Boston, USA
11:15 – 11:20	Moderated Question and Answer
11:20 – 12:00	**Myoclonus: Clinical cases** (interactive with the participants) *Christos Ganos* – Toronto, Canada *Nicolas Phielipp* – Irvine, USA
12:00 - 12:10	Moderated Question and Answer
12:10 – 13:00	*LUNCH BREAK*

Break out Session: Jerky Movements ***Participants divided into four groups of 10***		
	Hands-on Session with Patients/Healthy participant demonstration *EMG + EEG – DATA COLLECTION* All Faculty	**Workshop Back Averaging and ERD** *(brief lecture with demonstration)* *Participant works on computer for data analysis* *COMPUTER WORK – DATA ANALYSIS* All Faculty

Sponsored by:

International Federation of CLINICAL NEUROPHYSIOLOGY

Endorsed by :

International Parkinson and Movement Disorder Society

13:00 – 13:30	Jerky movements – healthy demonstration ***Group A*** *and* ***Group B***		***Group C & Group D***
13:30 – 14:00	Jerky movements – patient 1 ***Group A***	Jerky movements – patient 2 ***Group B***	
14:00 – 14:30	Jerky movements – patient 2 – ***Group A***	Jerky movements – patient 1 ***Group B***	
14:30 – 15:00	*TEA BREAK*		
	Hands-on Session with Patients All Faculty		**Workshop Back Averaging and ERD** *(brief lecture with demonstration)* *Participant works on computer for data analysis* All Faculty
15:00 – 15:30	Jerky movements – healthy demonstration ***Group C*** *and* ***Group D***		***Group A & Group B***
15:30 – 16:00	Jerky movements – patient 1 ***Group C***	Jerky movements – patient 2 ***Group D***	
16:00 – 16:30	Jerky movements – patient 2 – ***Group C***	Jerky movements – patient 1 ***Group D***	
16:30 – 16:45	**Closing Remarks**		

Sponsored by:

International Federation of CLINICAL NEUROPHYSIOLOGY

Endorsed by :

International Parkinson and Movement Disorder Society

DAY 2

Session 1: Clinical Neurophysiology of Tremor		
8:30-8:55	**Clinical Neurophysiology to Differentiate tremor physiology** **Basic physiology (peripheral vs. central)** *Felipe Vial* – Santiago, Chile	
8:55 – 9:00	**Moderated Question and Answer**	
9:00-9:25	**Clinical Neurophysiology to Differentiate different types of tremors** ***Specific physiology for diagnosis of each subtype*** *Panagiotis Kassavetis* – Washington, USA	
9:25-9:30	**Moderated Question and Answer**	
9:30– 10:10	**Tremor: Different subtypes and Clinical Cases** (interactive with the participants) *Katherine Longardner* – San Diego, USA *Marcus Callister* – Toronto, Canada	
10:10-10:20	**Moderated Question and Answer**	
10:20-10:40	*COFFEE BREAK*	
Session 2: Clinical Neurophysiology of other hyperkinetic disorders		
10:40–11:10	**Clinical Neurophysiology of other hyperkinetic movement disorders** *Karlo Lizarraga* – Rochester, USA	
11:10 – 11:15	**Moderated Question and Answer**	
11:15 – 11:55	**Clinical Cases of other hyperkinetic disorders** (interactive with the participants) *Christos Ganos* – Toronto, Canada *Talyta Grippe* – Toronto, Canada	
11:40-12:00	**Moderated Question and Answer**	
12:00 – 13:00	*LUNCH BREAK*	
Break out Session: Tremor ***Participants divided into four groups of 10***		
	Hands-on Session with Patients *Data collection* All Faculty	**Workshop: Use of electrophysiology to study tremor** **(***brief lecture with demonstration)* *Participant works on computer for data analysis* All Faculty
13:00 – 13:30	Tremor – healthy demonstration ***Group A*** *and* ***Group B***	***Group C & Group D***
13:30 – 14:00	Tremor – patient 1 ***Group A*** / Tremor – patient 2 ***Group B***	
14:00 – 14:30	Tremor – patient 2 ***Group A*** / Tremor – patient 1 ***Group B***	
14:30 – 15:00	*TEA BREAK*	

Sponsored by:

International Federation of CLINICAL NEUROPHYSIOLOGY

Endorsed by :

International Parkinson and Movement Disorder Society

<table>
<tr><td></td><td colspan="2">Hands-on Session with Patients
All Faculty</td><td>Workshop: Use of electrophysiology to study tremor (brief lecture with demonstration)
Participant works on computer for data analysis
All Faculty s</td></tr>
<tr><td>15:00 – 15:30</td><td colspan="2">Tremor – healthy demonstration
Group C and Group D</td><td rowspan="3">Group A & Group B</td></tr>
<tr><td>15:30 – 16:00</td><td>Tremor – patient 1
Group C</td><td>Tremor – patient 2
Group D</td></tr>
<tr><td>16:00 – 16:30</td><td>Tremor – patient 2
Group C</td><td>Tremor – patient 1
Group D</td></tr>
<tr><td>16:20– 16:30</td><td colspan="3">Closing Remarks</td></tr>
</table>

Sponsored by:

International Federation of CLINICAL NEUROPHYSIOLOGY

Endorsed by :

International Parkinson and Movement Disorder Society

DAY 3

Session: Advanced uses of neurophysiology studies in treatment: DBS and Botulinum toxin injections	
8:30 – 9:00	**Use of EMG and ultrasound for dystonia treatment** *Shabbir Merchant* – Boston, USA *Talyta Grippe* – Toronto, Canada
9:00 - 9:05	**Moderated Question and Answer**
9:05 - 9:35	**Patient demonstration – use of EMG for limb dystonia (2 cases – interactive with the participants)** *Robert Chen* – Toronto, Canada *Marcus Callister* – Toronto, Canada
9:35 – 9:45	**Moderated Question and Answer**
9:45 -10:00	*COFFEE BREAK*
10:00 – 10:30	**The Role of Neurophysiological Measurements in Clinical Practice: An Ally for Effective DBS Treatment** *Alfonso Fasano* – Toronto, Canada
10:30 – 11:00	**Challenges in Managing Dystonia: Case Discussions (2 cases)** *Panagiotis Kassavetis* – Washington, USA *Karlo Lizarraga* – Rochester, USA
11:00 -11:05	**Moderated Question and Answer**
11:05 - 11:55	**Patient demonstration – use of ultrasound for botulinum toxin injections (hands on with healthy participants)** *Panagiotis Kassavetis* – Washington, USA *Shabbir Merchant* – Boston, USA *Christos Ganos* – Toronto, Canada
11:55 - 12:05	**Moderated Question and Answer**
12:05 – 12:15	**Closing Remarks and Evaluation**