INTERNATIONAL SOCIETY OF ISIN 2006 INTRAOPERATIVE NEUROPHYSIOLOGY

SCIENTIFIC WEBINAR

September, 13th 2025
13:00h CET
Platform: ZOOM
FREE REGISTRATION

TES-MEP in Horses and Humans: Complementary Roles of Supportive Systems and Pyramidal Tract and TES Models

Moderators

Kathleen Seidel (Switzerland)
Members of webinar task force

Speakers

Sanne Journee
The Netherlands

Louis Journee
The Netherlands

Panelists

Stephen Reed
USA

Yvette S. Nout-Lomas
USA

Stanley Skinner
USA

Maria J. Tellez
USA

Objective:

To explore fundamental physiological differences between the motor systems of horses and humans, with the aim of examining how these differences affect the intraoperative neuromonitoring (IONM) of motor pathways in humans.

Expected educational outcomes:

- Compare neuroanatomical and neurophysiological differences between human and equine motor systems and their implications for MEP monitoring.
- Describe the methodological challenges in using TES in large animals and their parallels in human IONM.
- Identify models of TES in terms of stimulation depth, electrode stability, and reproducibility.
- Recognize extracranial versus transcranial MEP components and implement intensity-stepped stimulation protocols to avoid misinterpretation during IONM.

AGENDA (CET time)

13.00-13.05 **Welcome**
Kathleen Seidel

13.05-13.10 **Speakers and panelists**
introduction by
Task Force members

13.10-13.35 **Fundamental physiological differences between the motor systems of horses and humans**
Sanne Journee

13.35-13.50 **Speakers and panelists' discussion**

13.50-14.00 **Open Q&A**
moderated by Task Force members

14.00-14.25 **Comparative TES models and translational implications for MEP monitoring of humans**
Louis Journee

14.25-14.40 **Speakers and panelists' discussion**

14.40-14.50 **Open Q&A**
moderated by Task Force members

14.50-14.55 **Closing remarks**
Kathleen Seidel