## The movements of the preterm infant – what do they tell us about the brain?

#### Who should attend?

Medical specialists, neonatologists, (neuro)paediatricians, physiotherapists, occupational therapists, registered nurses, and other professionals in the field of infant neurology

## 3<sup>rd</sup> October 2024 in Berlin / Germany





# A diagnostic method for the functional assessment of the integrity of the nervous system

The human embryo begins to move from 9 weeks of pregnancy onwards with complex general movements (GMs). These involve the entire body with variable sequence of individual movements of arms, legs, neck and trunk. Intensity, speed, amplitude and spatial orientation of movements also vary. The GMs remain largely unchanged until the end of the second month after due date. Then, small-amplitude, elegant, so-called fidgety movements (FMs) appear, which remain present until 16-20 weeks.

Brain dysfunction changes the quality of GMs. This is referred to as a poor repertoire of GMs (the sequence of successive movement components is monotonous and the complexity is lost) or cramped-synchronized GMs (arm, trunk and leg muscles contract and relax almost simultaneously). Cramped-synchronized GMs occurring for several weeks signify a high risk for spastic cerebral palsy. When FMs are never observed between 9 and 16 weeks, this signifies a very high risk of cerebral palsy.

The advantage of recognizing an increased risk for neurological disorders so early is the possibility of evaluating neonatal morbidities, medications, and potentially favourable interventions, already during NICU period.

#### Goals of the training

- Understanding theorical background
- Some basic knowledge on various normal and abnormal GMs
- Understand practical applications of GM assessment, during NICU period and beyond

## **Main Topics**

- The motor repertoire of the fetus and premature infant
- When do which movement patterns develop and why?
- General movements and their age-specific characteristics
- How does brain dysfunction change general movements?
- How can you recognize an increased risk of cerebral palsy later in life?

### **Course Instructor / Tutor**

#### Prof. Dr. Arend F. Bos

- Professor of Neonatology
- Pediatrician-Neonatologist
- Tutor General Movement Trust
- Groningen, Netherlands

#### www.general-movements-trust.info

Course language English Please use our ONLINE registration in the event calendar at www.akademie-ottenstein.de There you can see whether the event is already fully booked or you will receive a confirmation of your registration immediately.

#### Methods

- Presentations
- Video demonstrations
- Case studies

The course will consist of lectures, demonstrations, and discussions of video-recordings.



## Location / Timetable

#### Harnack-House

The Conference Venue of the Max Planck Society Ihnestr. 16-20, 14195 Berlin, GERMANY

You will receive detailed directions after registration.

#### Timetable

09:00 - 17:00 h Coffee Break 10:30 - 11.00 h, 15:00 - 15:30 h

## **Continuing Medical Education**

#### CME can be applied

Early Registration until 31<sup>th</sup> July 2024: 240,00 € Registration from 1<sup>th</sup> August 2024: 270,00 € CME TO LE

German Education Points for therapists in the field of **Heilmittel Rahmenempfehlung** § 125 Abs. 1. SGB V can be applied

## **Registration and Further Information**

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