

## Scientific/Clinical Workshop

### Workshop Title

How Do Clinicians Combine Patient Goals, Clinical Evidence and Neurotechnology to Maximise Patient Recovery in Rehabilitation?

### Workshop Responsible

Alison Watt (Hobbs Rehabilitation)

### Speakers

Helen Hobbs, Alison Watt, Jose Lopez Sanchez, Cristina Vazquez, Javier Sanchez, Laura Marriott

### Abstract

As clinical providers of neurorehabilitation, Hobbs Rehabilitation (UK) and Centre Europeo de Neurociencias (Spain) both have a strong ethos of ensuring high quality clinical reasoning is used when applying neurotechnology in clinical practice. Collaboration between these centres demonstrates that this rehabilitation approach not only crosses geographical boundaries, but is essential for relevant device development by engineers and enhances the effective uptake of technologies by clinicians.

This interactive workshop will explore the scientific background to clinical application, starting with a theoretical overview of essential treatment principles including neuroplasticity and intensity. Clinicians will then introduce a neurological patient, presenting a case study history and current problem list.

Delegates will have the opportunity to interact with clinicians and the patient as they explore multiple different treatment approaches to address the current clinical problem. This demonstration will combine conventional therapy approaches with different current and novel technologies, with devices from multiple companies being presented. The advantages and disadvantages of devices will be objectively and pragmatically evaluated, alongside how using a combination of treatments can optimise patient outcomes.

A framework will be provided to support delegates in their own clinical reasoning, prompting engineers to consider the patient holistically and encouraging clinicians to challenge their practice in more depth. The session will conclude with empowered delegates being able to choose and justify their preferred treatment approach, respecting that this may vary between individuals so long as clinical reasoning is sound.

An emphasis on maximising recovery and minimising compensations will run throughout the workshop, linking back to clinical drivers of normal movement patterns, functional gains and meaningful activities.