

WISE Technologist

MEGIN Customer Training Program

Practical considerations and hands-on practice for performing quality clinical MEG

Willingness to strive for high quality

Ingenuity to overcome

Self-sufficient

Educated



MEGIN

Practical considerations and hands-on practice

Each workshop includes...

Lecture led by Prof. John Mosher discussing practical quality control considerations

- video lecture with interactive Q&A session

Hands-on virtual guidance for data acquisition

- video demonstrations and live support led by MEGIN trainers and expert technologists while trainees practice at their home site

Hands-on virtual guidance for data processing and analysis

- video demonstration and live support guided by expert MEG analysts while trainees practice on their data

Workshop 1: Performing quality somatosensory mapping Nichole Knott and Elizabeth Heinrichs-Graham, PhD, Boys Town National Research Hospital	January 13, 2022 12pm EST
Workshop 2: Performing quality visual mapping Jeremy Gurumendi and Paul Ferrari, PhD, Helen DeVos Children's Hospital,	February 7, 2022 12pm EST
Workshop 3: Performing quality auditory mapping together with receptive language mapping (Papanicolaou protocol) Teri Williard and Roozbeh Rezaie, PhD, Le Bonheur Children's Hospital	March 11, 2022 12pm EST
Workshop 4: Performing motor mapping Nao Matsuda and Steven Stufflebeam, MD, Massachusetts General Hospital	April 11, 2022 12pm EST
Workshop 5: Recording quality spontaneous MEG/EEG data Teri Williard and Roozbeh Rezaie, PhD, Le Bonheur Children's Hospital	June 10, 2022 12pm EST

Workshop 1: Practical considerations and hands-on practice for performing quality somatosensory mapping

	Resources	Duration
Lecture discussing practical quality control considerations for mapping	John Mosher, PhD	0.5 hour
Trainer-led, hands-on virtual guidance for data acquisition (trainer demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare the MEG system • Prepare the patient • Record magnetic evoked fields • Considerations for median, tibial and ulnar nerve recordings 	MEGIN trainer Jeremy Gutumandri NM20082A-B Guidelines to MEG Data Acquisition	1.5 hour
Expert-led, hands-on virtual guidance for data processing and analysis (expert demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare MRI and single sphere model • Pre-process raw data using MaxFilter • Prepare events for functional mapping • Source localization of evoked fields 	Elizabeth Heinrichs-Graham, PhD NM25775A-B Guidelines to MEG Data Analysis Software	1.5 hour

Workshop 2: Practical considerations and hands-on practice for performing quality visual mapping

	Resources	Duration
Q&A and lessons learned from SEF workshop	MEGIN Trainers, John Mosher, PhD	0.5 hour
Lecture discussing practical quality control considerations for visual mapping (stimuli, timing, field of view, etc.)	Paul Ferrari, PhD	0.5 hour
Trainer-led, hands-on virtual guidance for data acquisition (trainer demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare the MEG system • Prepare the patient • Record magnetic evoked fields • Considerations for different projector setup, screen setup, supine stimulation, different stimulus software (Stir12 vs E-Prime) 	MEGIN trainer Jeremy Gurumendi NM26082A-B Guidelines to MEG Data Acquisition	1.5 hour
Expert-led, hands-on virtual guidance for data processing and analysis (expert demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare MRI and single sphere model • Pre-process raw data using MaxFilter • Prepare events for functional mapping • Source localization of evoked fields 	Paul Ferrari, PhD NM25775A-B Guidelines to MEG Data Analysis Software	1.5 hour

Workshop 3: Practical considerations and hands-on practice for performing quality auditory mapping together with receptive language mapping (Papanicolaou protocol)

	Resources	Duration
Q&A and lessons learned from VEF workshop	MEGIN Trainers, John Mosher, PhD	0.5 hour
Lecture discussing practical quality control considerations for language mapping (stimuli, distractors, etc.)	Roozbeh Rezaie, PhD	0.5 hour
Trainer-led, hands-on virtual guidance for data acquisition (trainer demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare the MEG system • Prepare the patient • Record magnetic evoked fields • Considerations for adjusting stimulus volume and patient engagement with target words 	MEGIN trainer Teri Williard NM26082A-B Guidelines to MEG Data Acquisition	1.5 hour
Expert-led, hands-on virtual guidance for data processing and analysis (expert demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare MRI and single sphere model • Pre-process raw data using MaxFilter • Prepare events for functional mapping • Source localization of evoked fields 	Roozbeh Rezaie, PhD NM25775A-B Guidelines to MEG Data Analysis Software	1.5 hour

Workshop 4: Practical considerations and hands-on practice for performing quality motor mapping

	Resources	Duration
Q&A and lessons learned from LEF workshop	MEGIN Trainers, John Mosher, PhD	0.5 hour
Lecture discussing practical quality control considerations for mapping	Steven Stufflebeam, MD	0.5 hour
Trainer-led, hands-on virtual guidance for data acquisition (trainer demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare the MEG system • Prepare the patient • Record magnetic evoked fields • Considerations for finger tapping, self-paced or stimulus driven 	MEG N trainer Naoki Matsuda Seppo Ahlfors, PhD NM26082A-B Guidelines to MEG Data Acquisition	1.5 hour
Expert-led, hands-on virtual guidance for data processing and analysis (expert demonstrates, trainee practices) <ul style="list-style-type: none"> • Prepare MRI and single sphere model • Pre-process raw data using MaxFilter • Prepare events for functional mapping • Source localization of evoked fields 	Teppei Matsubara, PhD, MD NM25775A-B Guidelines to MEG Data Analysis Software	1.5 hour

Workshop 5: Practical considerations and hands-on practice for recording quality spontaneous MEG/EEG data.

	Resources	Duration
Welcome	On-site expert, MEGIN Trainers	0.5 hour
Q&A from past workshops		
Practical considerations for using sedation	Teri Williard	1.0 hours
Discussion plus demonstrations	Roosbeh Rezaie, PhD	
Trainer-led, hands-on virtual guidance for data acquisition (trainer demonstrates, trainee practices) <ul style="list-style-type: none"> • Preparing the MEG system • Tuning sensors • Identifying and mitigating magnetic interference and artifacts • Preparing the patient EEG 10/20 setup demo • Preparing the patient EEG cap demo • Positioning the patient for comfort • Recording spontaneous MEG • Finalizing the measurement and managing data 	MEGIN trainers NM26082A-B Guidelines to MEG Data Acquisition	1.5 hours
WISE Tech MEG tours – participants share their site setup, focusing on		TBD
Panel discussion		TBD