

AGENDA

Motor Control and Learning After Neurologic Injury: Basic Principles to Clinical Application

June 15-16, 2016

Presenters

Darcy Reisman, PT, PhD | Susanne Morton, PT, PhD | Simona Bar-Haim, PT, PhD

DAY 1

Time	Topic	Presenter
20 min	Welcome	Simona Bar-Haim
60 min	Principles of Neuroplasticity <ul style="list-style-type: none">A. Use It or Lose ItB. Use It and Improve ItC. RepetitionD. Task SpecificityE. IntensityF. InterferenceG. SaliencyH. Age EffectsI. Time Effects	Darcy Reisman
60 min	Principles and Forms of Motor Learning <ul style="list-style-type: none">A. Implicit vs. Explicit LearningB. Procedural vs. Declarative LearningC. Practice StructureD. FeedbackE. Error-Based Motor LearningF. Operant Reinforcement-Based Motor LearningG. Reward-Based Motor Learning	Susanne Morton
15 min	BREAK	
60 min	Practical Applications of Principles of Neuroplasticity and Motor Learning in Neurologic Populations	Darcy Reisman Susanne Morton
60 min	Motor Adaptation <ul style="list-style-type: none">A. DefinitionB. Adaptation and After-EffectsC. SavingsD. Generalization/Transfer	Darcy Reisman Susanne Morton

DAY 1

Time	Topic	Presenter
	E. Factors Influencing Adaptation F. Factors Influencing Savings	
60 min	LUNCH	
45 min	Locomotor Adaptation A. Differences Between Paradigms B. Rapidly vs Slowly Adapting Parameters C. Spatial vs Temporal Parameters D. Transfer E. Savings	Darcy Reisman
60 min	Role of the Cerebellum in Motor Adaptation and Learning A. Basic Neurophysiologic Mechanisms of Cerebellar Motor Learning B. Effects of Cerebellar Damage on Motor Adaptation	Susanne Morton
5 min	Adjournment	

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DAY 2

Time	Topic	Presenter
10 min	Announcements	Simona Bar-Haim
90 min	Motor Adaptation after Stroke <ul style="list-style-type: none">A. Split-belt ParadigmB. Resistance ParadigmC. Manipulandum ParadigmD. Concept of Error AugmentationE. Savings	Darcy Reisman Susanne Morton
60 min	Clinical Application- Motor Adaptation after Stroke <ul style="list-style-type: none">A. Results from Longer-term Adaptation PracticeB. Is Error Augmentation Appropriate for my Patient?C. How to Apply these Concepts in the Clinic	Darcy Reisman Susanne Morton
30 min	BREAK	
60 min	Locomotor Adaptation and Learning in Cerebral Palsy (CP)	Simona Bar-Haim
30 min	Clinical Application- Locomotor Adaptation in CP	Simona Bar-Haim
60 min	LUNCH	
120 min	Lab experiences <ul style="list-style-type: none">A. Split-belt TreadmillB. TherabandC. Resistance/Weighting	Simona Bar-Haim Darcy Reisman Susanne Morton
15 min	Announcements	
5 min	Adjournment	