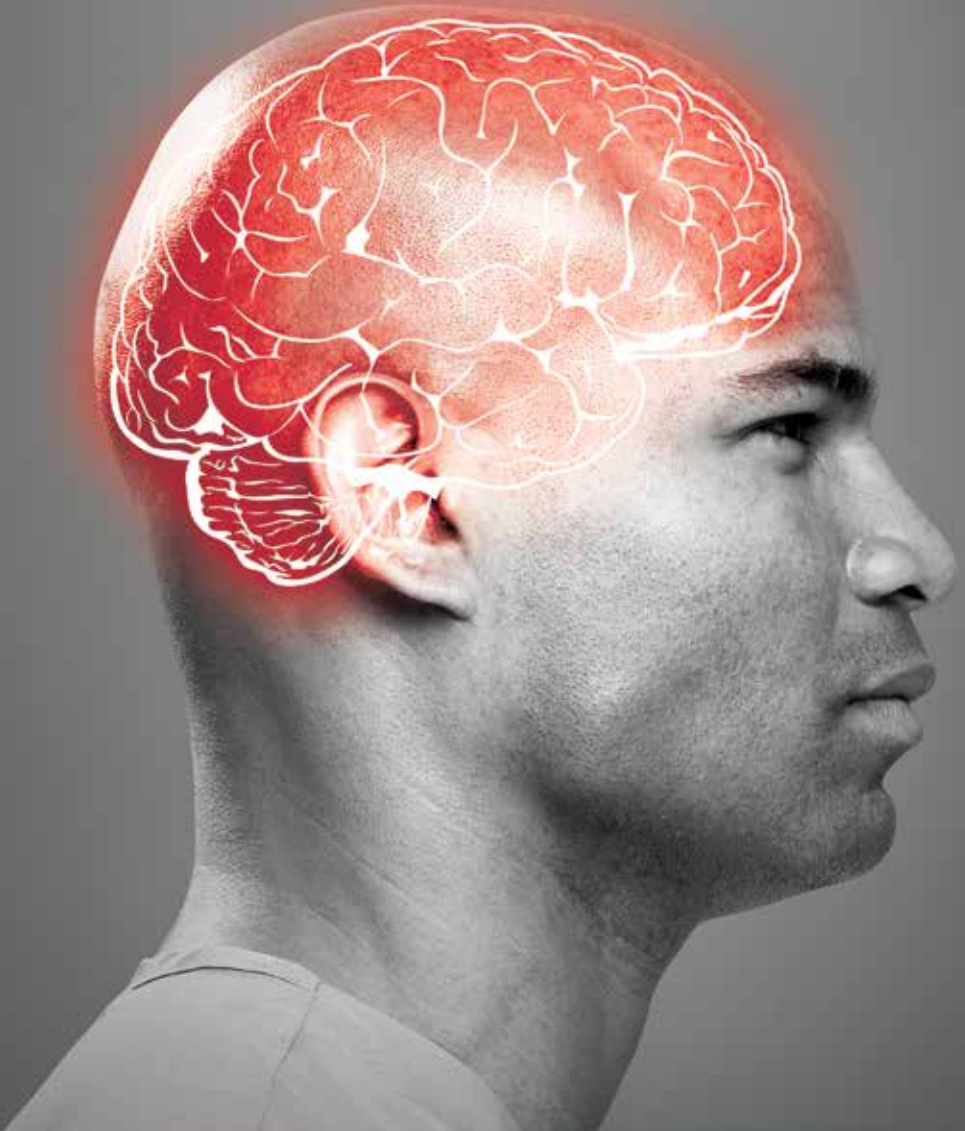


# ***Bacharach***

INSTITUTE FOR REHABILITATION

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*Introducing the  
James Klinghoffer Neurorecovery Center*



# *Robotic Technology*

## *Advancing Neurorecovery*

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The James Klinghoffer Neurorecovery Center showcases the latest developments in robotic technology, aimed at helping patients recover more quickly from stroke and neurological conditions. The robotic equipment offers measurable, interactive therapy and is able to isolate particular human body movements, helping patients repeatedly perform prescribed exercises, therefore reducing rehabilitation time. These advancements further prove that the use of robotic technology is often more beneficial than conventional therapy alone. The James Klinghoffer Neurorecovery Center is scheduled to open in early 2018.

# Gait Training

## **Lokomat®Pro by Hocoma**

*Robotic gait trainer*

- Provides highly repetitive physiological training, especially for severely impaired patients
- Supported treadmill training for walking disabilities caused by neurological, muscular or bone-related disorders
- Moves legs in a natural but controlled walking pattern, strengthening and training impaired muscles
- Improves outcomes by providing highly intensive, individualized training in a motivational environment of constant feedback



Picture: Hocoma, Switzerland

Picture: Hocoma, Switzerland



## **Lokomat®Peds by Hocoma**

*Pediatric adaptive exoskeleton for LokomatPro*

- Allows pediatric patients to benefit from Lokomat gait training
- Accommodates small children with special harnesses and cuffs that provide precise fit
- Designed for children with cerebral palsy, brain injury, stroke and gait disorders to improve function and balance

## **Andago® by Hocoma**

*Safe and free overground gait training*

- Assists patients in walking naturally, triggering continuous physiological input
- Utilizes mobile robotic technology to sense a patient's movement and actively follows while providing dynamic body-weight support
- Provides therapists with a versatile tool for overground gait training, bridging the gap between treadmill-based and free walking



Picture: Hocoma, Switzerland

# Arm, Shoulder and Hand Therapy

## **InMotion ARM™ by Bionik Laboratories**

*Upper extremity robotic-assisted rehabilitation*

- Evidence-based neurorehabilitation technology for stroke, cerebral palsy and traumatic brain injury patients
- Interactive technology capable of continuously adapting to each patient's ability
- Allows clinician to efficiently deliver personalized, intensive sensorimotor therapy to neurologic patients



Photo credit: Bionik Laboratories



Picture: Hocoma, Switzerland

## **Armeo®Spring by Hocoma**

*Repetitive arm and hand therapy*

- Self-initiated repetitive arm and hand therapy in an extensive 3D workspace
- Enables patient to use any remaining motor functions to achieve a higher number of reach and grasp movements
- Motivating game-like Augmented Performance Feedback exercises train core movement patterns used in activities of daily living

## **DIEGO® by Tyromotion**

*Robotic-assisted arm and shoulder rehabilitation*

- Upper extremity suspension unit for patients with limited motor function of the arm
- Uni- and bilateral use for maximum therapy time in a sling system



Photo credit: Tyromotion

Photo credit: Tyromotion



## **AMADEO® by Tyromotion**

*Robotic-assisted hand rehabilitation*

- Simulates natural grasping motion and executes automated movement sequences
- Continuous Passive Motion therapy, as well as active interactive training, with specifically developed virtual therapy games

# Additional Therapies

## **Erigo®Pro by Hocoma**

*Tilt table for early rehabilitation*

- Enables early and safe mobilization even for immobile patients
- Allows the therapist to provide mobilization, verticalization and sensorimotor stimulation at the same time



Picture: Hocoma, Switzerland

Photo credit: Tyromotion



## **MYRO® by Tyromotion**

*Cognitive screen*

- Interactive therapy surface supporting task-oriented rehabilitation
- Combines pressure sensitivity, sensor precision and scalable area of motion

## **PABLO® by Tyromotion**

*Multifunctional rehabilitation for impaired motor skills*

- Sensor-based rehabilitation for uni- and bilateral training
- Interactive therapies for the whole body (hand, fingers, arms, legs, trunk, head)
- Can be used by adults and children



Photo credit: Tyromotion

Photo credit: Tyromotion



## **TYMO® by Tyromotion**

*Sensor-based balance therapy*

- Static and dynamic evaluation (standing, sitting or supporting)
- Improves balance and postural control, or used with force and support activities of upper extremities
- For therapy of neurological and orthopedic patients of all ages

# Additional Therapies (cont'd)

## Neuro Sensorimotor Integrator (NSI) by RKB Instruments

*Programmable touch-screen therapy*

- Designed for patients requiring visual or neurotherapy
- Uses 50" HD TV, touch screen and peripheral devices to treat a wide range of clinical challenges
- Improves eye-hand coordination, visual reaction time, ocularmotor skills, visual motor skills and neuro-cognitive skills



Photo credit: RKB Instruments

Photo credit: DriveSafety



## DriveSafety® CDS 200

*Clinical driving simulator*

- Complete simulated experience to address driving-related issues
- Powerful tools to help therapists exercise and measure physical functioning, cognition and vision of patients
- Safe setting for evaluating driving skills, such as attention, scanning, problem solving and coordination

## RT300 FES by Restorative Therapies

*Leg and arm bike*

- Functional Electrical Stimulation (FES) cycling therapy system for neurorecovery
- FES pulses stimulate peripheral nerves evoking muscle contractions and patterned muscle activity



Photo credit: Restorative Therapies

# Bacharach

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