

Rehabilitation Engineering Research Center (RERC)

on

Technologies for Children with Orthopedic Disabilities

U.S. Department of Education

H133E100007

Annual Meeting

Marquette University

Discovery Learning Complex

Innovation Lab

Corner of 16th and Wisconsin Avenues

Milwaukee, WI

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| 2:00 PM – 2: 15 PM | Welcome & Introductions | Dr. Robert Bishop , Opus Dean, College of Engineering, Marquette University Dr. Kristina Ropella , Chair, Biomedical Engineering, Marquette University Dr. Gerald Harris , Professor and Director, Biomedical Engineering, Marquette University, RERC Director |
| 2:15 PM – 2:30 PM | RERC Overview and Progress | Dr. Gerald Harris |
| 2:30 PM – 3:00 PM | A Closer View – Research Project R2: Diffusion Tensor Imaging and Restoration of Upper and Lower Limb Function in Children with Cerebral Palsy | Dr. Brian Schmit , Professor, Biomedical Engineering, Marquette University, R2 Lead Investigator Dr. Michelle Johnson , Associate Professor, Medical College of Wisconsin, R2 Lead Investigator |
| 3:00 PM – 3:15 PM | A Closer View – Development Project D2: 3D Pediatric Robotic Gait Training Improves Locomotor Function in Children with Cerebral Palsy | Dr. Ming Wu , Research Assistant Professor, Department of Physical Medicine and Rehabilitation, Northwestern University; Research Scientist, Sensory Motor Performance Program, Rehabilitation Institute of Chicago, D2 Lead Investigator |
| 3:15 PM – 3:30 PM | Perspectives on the Website Development Demonstration of www.tech4pod.org | Dr. Roger O. Smith , Professor, Department of Occupational Science & Technology, College of Health Sciences Director, Rehabilitation Research Design & Disability (R2D2) Center, RERC Training & Dissemination Ms. Melissa R Lemke , Senior Research Specialist, Rehabilitation Research Design and Disability (R2D2) Center, College of Health Sciences, UW Milwaukee, RERC Training & Dissemination |

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| <p>3:30 PM – 4:00 PM</p> | <p>A Look Forward: RERC Plans for Year 2</p> <p>R1: Nano- and Microstructural Tissue Characterization for Improved Care of Children with Osteogenesis Imperfecta (OI) and Severe Clubfoot Deformity</p> <p>R3: Home-Based Robot-Assisted Therapy and Tele-Assessment for Joint Impairment in Children with Cerebral Palsy</p> <p>R4: Advanced Mobility Modeling to Improve Function and Longer Term Transitional Care of Children with Orthopedic Disabilities</p> <p>D1: Developing a Pivoting-Sliding Elliptical Machine to Improve Neuromuscular Control and Stability in Axial and Frontal Planes for Children with Orthopedic Disabilities</p> <p>D3: Biplanar Fluoroscopic System for Dynamic, <i>in vivo</i> Foot and Ankle Motion Analysis</p> <p>Training Activities</p> | <p>Dr. Gerald Harris, R1 Lead Investigator</p> <p>Dr. Yupeng Ren, Research Associate & Post Doctoral Fellow, Rehabilitation Institute of Chicago, R3 Lead Investigator</p> <p>Dr. Brooke Slavens, Assistant Professor, Department of Occupational Science & Technology, UW-Milwaukee, R4 Lead Investigator</p> <p>Dr. Gerald Harris, R4 Lead Investigator</p> <p>Dr. Yupeng Ren, D1 Lead Investigator</p> <p>Dr. Taly Gilat-Schmidt, Assistant Professor, Biomedical Engineering, Marquette University, D3 Lead Investigator</p> <p>Dr. Roger Smith, Chair of the Training and Dissemination Committee</p> |
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