

Rehabilitation Engineering Research Center (RERC)

on

Technologies for Children with Orthopedic Disabilities

U.S. Department of Education

H133E100007

Rehabilitation Institute of Chicago

345 East Superior Street

Chicago, IL 60611

Magnuson Auditorium (16th floor, South)

Thursday, November 15, 2012

12:00 – 12:15 PM	Welcome & Introductions	Dr. W. Zev Rymer , Vice President, Research, RIC Dr. Li-Qun Zhang , Senior Research Scientist RIC; Professor, PM&R, Orthop Surg, and Biomedical Eng, Northwestern University, RERC Co-Director Dr. Gerald Harris , Professor and Director, Biomedical Engineering, Marquette University, RERC Director
12:15 PM – 12:30 PM	RERC Overview and Progress	Dr. Gerald Harris
12:30 PM – 1:00 PM	Training Activities Current and Future	Ms. Deborah Epps , RERC Coordinator, Medical College of Wisconsin and Marquette University 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 Dr. Li-Qun Zhang
1:00 PM – 1:15 PM	Perspectives on the Website – Where Do We Go from Here? Demonstration of www.tech4pod.org	Dr. Roger O. Smith Ms. Melissa R. Lemke
1:15 PM – 1:30 PM	A Closer View – Research Project R1: Nano- and Microstructural Tissue	Dr. Gerald Harris John Jameson , Marquette University PhD graduate student

	Characterization for Improved Care of Children with Osteogenesis Imperfecta (OI) and Severe Clubfoot Deformity	
1:30 PM – 1:45 PM	A Closer View – Development Project D1: Developing a Pivoting-Sliding Elliptical Machine to Improve Neuromuscular Control and Stability in Axial and Frontal Planes for Children with Orthopedic Disabilities	Dr. Li-Qun Zhang , D1 Lead Investigator
1:45 PM – 2:30 PM	A Look Forward: RERC Plans for Year 3 R2: Diffusion Tensor Imaging and Restoration of Upper and Lower Limb Function in Children with Cerebral Palsy R3: Home-Based Robot-Assisted Therapy and Tele-Assessment for Joint Impairment in Children with Cerebral Palsy R4: Advanced Mobility Modeling to Improve Function and Longer Term Transitional Care of Children with Orthopedic Disabilities D2: 3D Pediatric Robotic Gait Training Improves Locomotor Function in Children with Cerebral Palsy D3: Biplanar Fluoroscopic System for Dynamic, <i>in vivo</i> Foot and Ankle Motion Analysis	Dr. Brian Schmit , Professor, Biomedical Engineering, Marquette University, R2 Lead Investigator Dr. Michelle Johnson , Associate Professor, Medical College of Wisconsin, R2 Lead Investigator Dr. Li-Qun Zhang R3 Lead Investigator Dr. Brooke Slavens , Assistant Professor, Department of Occupational Science & Technology, UW-Milwaukee, R4 Lead Investigator Dr. Gerald Harris , R4 Lead Investigator 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 Dr. Taly Gilat-Schmidt , Assistant Professor, Biomedical Engineering, Marquette University, D3 Lead Investigator
2:30 – 3:30 PM	Posters & Reception (Room 1301)	

A parking voucher will be provided and you pay about \$5 at nearby Northwestern garages.

RERC Committees:

F1: Core Management Team (CMT):

The Chair of the CMT is Dr. Gerald Harris. Members include: Dr. Li-Qun Zhang, Dr. Jeffrey Schwab, Dr. Peter Smith, Dr. Roger Smith, Ms. Deborah Epps, and a parent of a child with an orthopedic disability. The CMT is responsible for management of all aspects of the RERC.

F2: Research Management Team (RMT):

The Chair of the RMT is Dr. Gerald Harris. Members include: the Lead Investigators for each of the Research Projects (Dr. Jeffrey Toth, Dr. Xue-Cheng Liu, Dr. Michelle Johnson, Dr. Brian Schmit, Dr. Li-Qun Zhang, Dr. Brooke Slavens, Dr. Jason Long, Dr. Larry Vogel, Dr. Haluk Altioek, and Dr. Scott Van Valin), and a parent of a child with an orthopedic disability. The RMT is responsible for managing and coordinating all research activities to ensure that they are progressing as planned and are modified as needed to effectively accomplish the objectives of the project and the RERC.

F3: Development Management and Quality Control Team (DMQCT):

The Chair of the DMQCT is Dr. Li-Qun Zhang. Members include: the Lead Investigators for each of the Development Projects (Dr. Sang Kang, Dr. Ming Wu, Dr. Taly-Gilat Schmidt, Dr. Robert Rizza, and Dr. Xue-Cheng Liu), Dr. Jay Goldberg, and a parent of a child with an orthopedic disability. The DMQCT is responsible for managing and coordinating all development activities to ensure that they are progressing as scheduled and are modified as needed to effectively accomplish the objectives of the project and the RERC.

F4. Training and Dissemination Management Team (TDMT):

The Chair of the TDMT is Dr. Roger Smith. Members include: Ms. Epps, Ms. Melissa Lemke, Dr. Zang, and a parent of a child with an orthopedic disability. In addition, close coordination with the RMT and DMT chairs will be maintained by Dr. Smith. The TDMT may also include a representative from NAIRIC and from the Clinical and Translational Science Institute (CTSI) of Southeast Wisconsin. The TDMT is responsible for coordinating all training and dissemination activities and for planning outreach activities to ensure that the RERC stays targeted on the needs of consumers, and that the training and dissemination activities serve all constituencies effectively.

F5: External Children with Orthopedic Disabilities Evaluation Panel (External COP Evaluation Panel):

The External COP Evaluation Panel Chair is Dr. Howard Garber (President of the Milwaukee Center for Independence). The panel includes: Dr. Susan Foley (University of Massachusetts Boston/Institute for Community Inclusion), Dr. Steve Gard (Northwestern University Prosthetics-Orthotics Center), Mary Beth Huber (Osteogenesis Imperfecta Foundation), Dr. James Rimmer (National Center of Physical Activity & Disability), Dr. Zev Rymer (RIC), Yvonne Stueber (United Cerebral Palsy of Southeast Wisconsin), and a parent of a child with an orthopedic disability. This panel will provide an independent evaluation of the activities and effectiveness of the RERC. They will advise the CMT, as they strive to accomplish the mission and objectives of the RERC