### Registration Information:
To learn more about the symposium and to register online, go to [https://www.regonline.com/USCsykesymposium2015].

### Registration Fees:
- **$325** Individual Registration
- **$295** Early Bird Rate (until January 30, 2015)
- **$275** USC Alumni/USC Clinical Instructor Rate
  1.0 CEU’s

### Refunds/Cancellations:
A refund will be issued (less a $50 administrative fee) if a cancellation is made before February 13, 2015. No refunds will be issued after February 13, 2015. USC reserves the right to cancel this meeting, in which case all registration fees paid will be refunded to registrants.

### Symposium Location:
USC Health Sciences Campus 1540 Alcazar St. CHP 155 Los Angeles, CA 90089

To access a University USC Health Sciences Campus Interactive Map, go to [http://web-app.usc.edu/maps/#hsc](http://web-app.usc.edu/maps/#hsc)

To locate USC’s USC Health Sciences Campus on Google Maps or similar mapping software, you may use the intersection of Alcazar St and San Pablo St, Los Angeles, CA 90033

### Friday, March 20, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30-9:00 AM</td>
<td>Registration and continental breakfast</td>
</tr>
<tr>
<td>9:00-10:30 PM</td>
<td>Richard L. Lieber, PhD, “Biological and biomechanical studies of muscle contractures of children with cerebral palsy”</td>
</tr>
<tr>
<td>10:30-11:00 AM</td>
<td>Morning Break</td>
</tr>
<tr>
<td>11:00-12:30 PM</td>
<td>Susan Rethlefsen, DPT, “Application of current research to treatments for contractures in children with cerebral palsy: Are we doing the right thing?”</td>
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<tr>
<td>12:30-1:30 PM</td>
<td>(Lunch on your own)</td>
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<tr>
<td>1:30-3:00 PM</td>
<td>Stanley F. Nelson, MD, “New clinical diagnostics and implications for treatment of Duchenne muscular dystrophy”</td>
</tr>
<tr>
<td>3:00-3:30 PM</td>
<td>Afternoon Break</td>
</tr>
<tr>
<td>3:30-5:00 PM</td>
<td>Eileen G. Fowler, PT, PhD “Balancing function with muscle preservation in Duchenne muscular dystrophy”</td>
</tr>
</tbody>
</table>

### Saturday, March 21, 2015

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>8:30-9:00 AM</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>9:00-10:30 AM</td>
<td>Andrea L. Behrman, PhD, PT, “I brought one child with me and took home a very different child: Activity-dependent plasticity and new possibilities for outcomes in children with severe neurologic injury”</td>
</tr>
<tr>
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<td>Morning Break</td>
</tr>
<tr>
<td>11:00 AM-12:30 PM</td>
<td>Stephanie Yu PT, MSPT, PCS “Application of research on spinal cord injury to clinical cases”</td>
</tr>
</tbody>
</table>

**March 20-21, 2015**

**USC Division of Biokinesiology and Physical Therapy**

**Sykes Symposium on Pediatric Physical Therapy, Health, and Development**

**“Current Topics in Pediatric Rehabilitation”**
Workshop Overview
Join us for the 2015 Sykes Symposium on Pediatric Physical Therapy, Health and Development. This exciting annual symposium will create a dialog between people who conduct clinically relevant pediatric research and those who serve and care for infants and children with developmental and health challenges. The symposium promises to be an excellent opportunity to promote a conversation between pediatric physical therapy researchers and clinicians. The forum includes an open audience discussion of the cases with response from the panel of expert clinicians and scientists. The symposium will be relevant, challenging, and engaging. Don’t miss it!

Featured speakers (in order of presentation)

**Richard L. Lieber, PhD**, Senior Vice President & Chief Scientific Officer, Rehabilitation Institute of Chicago.

"Biological and biomechanical studies of muscle contractures of children with cerebral palsy"

Dr. Lieber earned his Ph.D. in Biophysics from U.C. Davis in 1982 developing a theory of light diffraction that was applied to mechanical studies of single muscle cells. He joined the faculty at the University of California, San Diego in 1985 where he spent his academic career, achieving the rank of Professor and Vice-Chair of the Department of Orthopaedic Surgery. He received his M.B.A. in 2013 and is currently Chief Scientific Officer and Senior Vice President at the Rehabilitation Institute of Chicago. Dr. Lieber's work is characterized by its interdisciplinary nature—an approach that is relevant to those who study biomechanics and Orthopaedic Surgery. He has implemented molecular biology tools to understand gene expression patterns in muscles subjected to high stress and in performing mechanistic studies of muscles in which genes are introduced to muscles in an attempt to change their mechanical function. He has also pioneered studies of human muscle during hand surgery and in conditions of muscle contracture due to Cerebral Palsy.

**Susan Rethlefsen, DPT**, Lead Physical Therapist John C. Wilson Motion Analysis Lab, CHLA.

"Application of current research to treatments for contractures in children with cerebral palsy: Are we doing the right thing?"

Dr. Rethlefsen received her BS in PT from California State University, Long Beach and a DPT from Rocky Mountain University of Health Professions. She is currently the lead PT in the John C. Wilson Motion Analysis Laboratory at Children’s Hospital Los Angeles. She is particularly interested in using motion analysis technology to objectively evaluate the impact of current orthopedic treatments for gait problems in people with cerebral palsy, and looking at ways to improve outcomes.

**Stanley F. Nelson, MD**, Professor of Human Genetics, Pathology and Laboratory Medicine, Co-Director, Center for Duchenne Muscular Dystrophy. Co-Director, Clinical Genomics Center, David Geffen School of Medicine at UCLA.

"New clinical diagnostics and implications for treatment of Duchenne muscular dystrophy"

Dr. Nelson trained as a Pediatrician and Hematologist-Oncologist at UCSF, and completed a postdoctoral fellowship at Stanford University in 1993. On faculty at UCLA since 1993, he has practiced medicine and led a large research group using genomic approaches to better understand cancers, as well as the genetic contribution to rare and common human diseases. His work has led to novel gene discovery in a variety of fields and developed technology helping to identify causal mutations in humans. Recently, with colleagues on campus, he has established and co-directs the Center for Duchenne Muscular Dystrophy to bring novel therapeutics forward for this lethal genetic disease and implement outstanding clinical care. In addition, since 2011, he established and co-directs the UCLA Clinical Genomics Center. Under his leadership, the Center launched a new clinical test 'Clinical Exome Sequencing' to efficiently and powerfully search the entire genome to find the causal mutation in individuals with undiagnosed genetic disorders. This work is leading the way for the use of genomics in routine medical practice.

**Eileen G. Fowler, PT, PhD**, Professor in the Department of Orthopaedic Surgery, UCLA. Peter William Shapiro Chair, Director of Research & Education, UCLA Center for Cerebral Palsy.

"Balancing function with muscle preservation in Duchenne muscular dystrophy"

Dr. Fowler received her PT degree from Northeastern University and her PhD in Kinesiology from UCLA. She is Professor, Department of Orthopaedic Surgery, UCLA and holds the Peter William Shapiro Chair and Director of Research and Education for the UCLA Center for Cerebral Palsy. Dr. Fowler will become President of the AACPDM in 2015. She has over 30 years experience in the evaluation and treatment of pediatric disabilities and is currently a co-investigator for a multisite natural history study and several clinical trials for Duchenne muscular dystrophy.

**Andrea L. Behrman, PhD, PT**, Professor, Department of Neurological Surgery – Pediatric Rehabilitation and Recovery Laboratory, University of Louisville.

"I brought one child with me and took home a very different child: Activity-dependent plasticity and new possibilities for outcomes in children with severe neurologic injury"

Dr. Behrman earned her BS in biology from Furman University, MSPT from Duke University and PhD in exercise science from the University of Florida. She recently joined the University of Louisville, Department of Neurological Surgery, Louisville, KY and the Kentucky Spinal Cord Injury Research Center following her prior appointment as Professor at the University of Florida, Department of Physical Therapy. Dr. Behrman is the Executive Director of the University of Louisville Kosair Charities Center for Pediatric NeuroRecovery providing activity-based therapies to children with neurologic dysfunction, training healthcare professionals and researchers, and conducting research to guide clinical practice. She is also co-director of the Christopher and Dana Reeve Foundation NeuroRecovery Network that provides standardized activity-based therapies for individuals with spinal cord injury at seven national rehabilitation centers in the United States. As a physical therapist, her research focuses on developing therapeutic interventions to promote recovery after spinal cord injury in both children and adults, using principles of activity-dependent plasticity and an understanding of walking neurobiology. She partners with basic scientists as a collaborative team conducting two-way translational research from bench-to-bedside back-to-bench.

**Stephanie Yu PT, MSPT, PCS**, Therapy Manager with the County of Los Angeles California Children’s Services.

"Application of research on spinal cord injury to clinical cases"

Ms. Yu earned her BS in Kinesiology from UCLA and MSPT from Boston University. She has been board certified as a clinical specialist in Pediatric Physical Therapy since 2002. Ms. Yu oversees a region of CCS clinics that provide outpatient PT and OT, at no cost to qualifying children. She received the 2013 APTA Section on Pediatrics, Outstanding Pediatric Clinician Award. Ms. Yu currently serves as the Pediatric Representative and Immediate Past Chair of the American Board of Physical Therapy Specialties.