

Limb Lengthening and Reconstruction Society

Association for the Study and Application of the Methods of Ilizarov–North America

33rd Annual Scientific Meeting

Compass Rose North & East, Level 9

Friday, July 12, 2024

- 7:00 a.m. Check-in/Registration Opens – Level 9 Foyer
- 7:15–8:00 a.m. Continental Breakfast – Compass Rose South
Visit Corporate Partners
- 8:00–8:04 a.m. Welcome/Introduction/Disclosure – *Stephen M. Quinnan, MD*
- 8:05–8:52 a.m. **Session I: Nonunion & Bone Defects**
Moderator: Mani Kahn, MD
- 8:05–8:11 a.m. Impact of Obesity on Inflammatory Markers in Patients with Aseptic Nonunions – *Min Suh, MD*
- 8:12–8:18 a.m. Bone Morphogenetic Protein Utilization in Long Bone Nonunions: Is it as Popular as We Think? – *Joseph R. Hsu, MD*
- 8:19–8:25 a.m. Comparison of Outpatient vs. Inpatient Lower Extremity Nonunion Surgery – *Min Suh, MD*
- 8:26–8:32 a.m. Discussion
- 8:33–8:39 a.m. Fulcrums in Balanced Cable Bone Segment Transport – Assessing Mechanical Differences – *Stephanie Kaszuba, MD*
- 8:40–8:46 a.m. Balanced Cable Bone Transport of the Tibia Using Automated Motorized Struts – *Elizabeth Partridge Wellings, MD*
- 8:47–8:52 a.m. Discussion
- 8:53–9:31 a.m. **Session II: Trauma Part 1**
Moderator: Mitchell Bernstein, MD
- 8:53–8:59 a.m. The Impact of Reduction Quality of Tibial Plafond Fractures during Temporizing External Fixation on Final Fracture Alignment and Overall Outcomes – *Roberto C. Hernandez-Irizarry, MD*
- 9:00–9:06 a.m. Preventing Deformity in 43C Tibia Pilon Fractures: Revisiting Conventional Wisdom of Implant Placement – *Amber Hamilton, MD*
- 9:07–9:13 a.m. Utilization of Short-Segment Temporary Reduction Assisting K-wires (TRAK-wires) for Intramedullary Nailing of Periarticular Fractures: A Technical Trick and Case Series – *Ryan P. Serbin, MD*

- 9:14–9:20 a.m. Enhanced Radiographic Union (RUST) Score of Adolescent Tibia Shaft Fractures Treated with Hexapod Circular External Fixation: A Multicenter Study of 38 Consecutive Cases – *Ahmed Thabet–Hagag, MD*
- 9:21–9:31 a.m. Discussion
- 9:32–10:09 a.m. **Session III: Pediatrics Part 1**
Moderator: Jaclyn F. Hill, MD
- 9:32–9:38 a.m. Surgical Treatment of Dynamic Valgus in Patients with Fibular Hemimelia: A Radiographic Assessment – *Aaron J. Huser, DO*
- 9:39–9:45 a.m. International Field Test of Limb–Q Kids: A New Patient Reported Outcome Measure for Lower Limb Differences – *Harpreet Chhina, PhD*
- 9:46–9:52 a.m. Psychological Risk Profile for Pediatric Patients Considering Limb Lengthening and Reconstruction – *Whitney M. Herge, PhD*
- 9:53–9:59 a.m. Increasing the Knee Arc of Motion in Patients with Arthrogyrosis: Minimum Two–Year Follow–Up – *Michael W. Brown, BS*
- 10:00–10:09 a.m. Discussion
- 10:10–10:38 a.m. **Session IV: Guided Growth**
Moderator: Jill C. Flanagan, MD
- 10:10–10:06 a.m. Biomechanical Analysis of a Predictive Mathematical Model for Rotational Guided Growth – *Alexander Chang, BS*
- 10:07–10:13 a.m. Go Big or Stay Home? Impact of Implant Selection on Outcomes of Growth Modulation in Blount Disease – *Claire Noyes, BS*
- 10:14–10:20 a.m. Sleeper Plates for Guided Growth: Choice of Plate Material Changes Risk of Tethering – *Gourav Jandial, MD*
- 10:21–10:27 a.m. Timing of Growth Modulation for Congenital Femoral Deficiency–Associated Distal Femoral Valgus – *John G. Birch, MD*
- 10:28–10:38 a.m. Discussion
- 10:39–11:05 a.m. Refreshment Break – Compass Rose South
Visit Corporate Partners
- 11:06–11:16 a.m. Clinician Scholar Career Development Program (CSCDP) Presentation
Introduction by Jessica C. Rivera, MD, PhD
Ainsley Bloomer, MD
Caleb Gottlich, MD

- 11:17 a.m.–12:15 p.m. **Presidential Guest Lecture***
“How Did We Get Where We Are: Limb Lengthening & Deformity Reconstruction: Some of My Innovations Over the Past 38 Years”
Dror Paley, MD
Paley Orthopedic & Spine Institute at St. Mary’s Medical Center
- 12:16–1:10 p.m. Lunch
Visit Corporate Partners
- 1:15–2:01 p.m. **Session V: Osseointegration Part 1**
Moderator: Joseph R. Hsu, MD
- 1:16–1:22 p.m. How Well Does Perc OI Work? Comparing Percutaneous vs Open–Exposure Transtibial Osseointegration – *S. Robert Rozbruch, MD*
- 1:23–1:29 a.m. Understanding the Impact of Intraoperative Bone Splitting on Patients with Osseointegrated Implants – *Jason D. Gross, MD*
- 1:30–1:36 p.m. Osseointegration of the Femur: One Year Outcomes of the Press–Fit Technique – *David Burns, MD, PhD*
- 1:37–1:43 p.m. Tibia Osseointegration: Outcomes after a Minimum Follow–up of 1 Year
David Laniado, MD
- 1:44–1:50 p.m. Evaluating Prosthetic Joint Infection Risk in Lower Extremity Osseointegration – *Tyler D. DeSena, MD*
- 1:51–2:01 p.m. Discussion
- 2:02–2:38 p.m. **Session VI: Adult Limb Deformity Part I**
Moderator: Austin T. Fragomen, MD
- 2:02–2:08 p.m. Interprofessional Teams in Limb Lengthening and Deformity Clinics
Jessica C. Rivera, MD, PhD
- 2:09–2:13 p.m. A Comparison of Functional Results of Three Different Surgical Techniques in Patients Undergoing Femoral Lengthening
Ilhan Sulejmani, MD
- 2:14–2:20 p.m. Tibia Deformity Correction Using an Intramedullary Nail
David Laniado, MD
- 2:21–2:27 p.m. Retrograde Femoral Lengthening below a Total Hip Arthroplasty
David Burns, MD, PhD
- 2:28–2:38 p.m. Discussion

- 2:39–2:59 p.m. Refreshment Break – Compass Rose South
Visit Corporate Partners
- 3:00–3:15 p.m. **Traveling Fellowship Presentation**
Introduction by Jaclyn F. Hill, MD
Ugochuku Akpati, MBBS
Stephen Becher, MD
Gourav Jandial, MD
Heather Kong, MD
- 3:16–4:01 p.m. **Session VII: Osteomyelitis**
Moderator: David B. Frumberg, MD
- 3:16–3:22 p.m. Effectiveness of Single–Stage Debridement with High–Dose Medullary Antibiotic Injection for Treating Osteomyelitis – *Amber Hamilton, MD*
- 3:23–3:29 p.m. Bacterial Elimination with Dalbavancin Antibiotic Beads
Grant Lambar, BS
- 3:30–3:36 p.m. Delivery of Dalbavancin from Antibiotic Beads: Is it Toxic to Bone?
Keenan Hurst, BS
- 3:37–3:43 p.m. Bromelain as a Source of Debridement for Infected Orthopaedic Implants – *Matthew Bratton, BS*
- 3:44–3:50 p.m. Is a Calcium Sulfate Injection during Transition to a Nail After Ring Fixator Associated with a High Rate of Infection? – *Alyssa Barré, MD*
- 3:51–4:01 p.m. Discussion
- 4:15–5:15 p.m. LLRS Business Meeting* – *LLRS Members Only*
- 6:30–8:30 p.m. President’s Reception* – License to Chill Terrace, Level 11

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33rd Annual Scientific Meeting

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Saturday, July 13, 2024

- 7:30 a.m. Check-in/Registration Opens – Level 9 Foyer
- 7:30–8:15 a.m. Continental Breakfast – Compass Rose South
Visit Corporate Partners
- 8:15–8:20 a.m. Welcome/Introduction/Disclosure – *Stephen M. Quinnan, MD*
- 8:21–8:59 a.m. **Session VIII: Internal Limb Lengthening Nails**
Moderator: Christopher A. Iobst, MD
- 8:21–8:27 a.m. Neck Shaft Angle Deviation in Patients Undergoing Femoral Limb Lengthening – *Akram Al Ramlawi, MD*
- 8:28–8:34 a.m. Nail Bending in Femoral Lengthening – *Akram Al Ramlawi, MD*
- 8:35–8:41 a.m. Mechanical Angle Deviation Shift during Femoral Limb Lengthening
Akram Al Ramlawi, MD
- 8:42–8:48 a.m. Compression of Intercalary Allografts with Magnetic Lengthening Nails, Mid-term Results with a Comparison of Techniques
Lee Zuckerman, MD
- 8:49–8:59 a.m. Discussion
- 9:00–9:38 a.m. **Session IX: Trauma Part 2**
Moderator: Jessica C. Rivera, MD, PhD
- 9:00–9:06 a.m. Does Intramedullary Nailing Increase Surgical Site Infection Rates for Incomplete Ballistic Tibia Shaft Fractures that Require Operative Debridement? – *Kathryn Dwight, MD*
- 9:07–9:13 a.m. How Many Operations Does It Take? Incidence and Risk Factors for Secondary Surgery and Amputation after Lower Extremity Limb Salvage with Free Tissue Transfer – *Roberto C. Hernandez-Irizarry, MD*
- 9:14–9:20 a.m. Gradual Reconstruction Algorithm for Distressed Soft Tissues: The GRADIST Method – *Ivan Federico Rubel, MD*
- 9:21–9:27 a.m. Evaluating Embolic Load Differences: Medullary Versus Extramedullary Fixation Techniques in Tibia Fracture Surgery – *Amber Hamilton, MD*
- 9:28–9:38 a.m. Discussion

- 9:39–10:30 a.m. Alessandro Codivilla Guest Lecture*
“Greeting Comfortable, Being Uncomfortable”
Rakesh Patel, MD, MBA
University of Michigan Health System
- 10:31–10:50 a.m. Refreshment Break – Compass Rose South
Visit Corporate Partners
- 10:55–11:31 a.m. **Session X: Pediatrics Part 2**
Moderator: L. Reid Nichols, MD
- 10:55–11:01 a.m. Comparing Two Abbreviated Bone Age Assessment Methods to Greulich and Pyle and the Modified Fels Wrist System Using Serial Radiographs – *Lauren Huang, BA*
- 11:02–11:08 a.m. Post–Operative Outcomes of the Patellofemoral 360° Procedure for Complex Patellofemoral Instability – *Austin T. Fragomen, MD*
- 11:09–11:15 a.m. Analysis of Serial Foot Radiographs to Determine Foot Height Multipliers – *Raymond W. Liu, MD*
- 11:16–11:22 a.m. Limb Length Discrepancy and Osteogenesis Imperfecta: Preventable or Inevitable? – *Jill C. Flanagan, MD*
- 11:23–11:31 a.m. Discussion
- 11:32–12:08 a.m. **Session XI: Osseointegration Part 2**
Moderator: Jason Stoneback, MD
- 11:32–11:38 a.m. Periprosthetic Fracture Management in Patients with Transfemoral Osseointegration – *S. Robert Rozbruch, MD*
- 11:39–11:45 a.m. Transfemoral Osseointegration for Patients with Amputation to Manage Infected Total Knee Arthroplasty – *Tyler S. DeSena, MD*
- 11:46–11:52 a.m. Transcutaneous Osseointegration in Patients with Diabetes Mellitus and/or Peripheral Vascular Disease: A Case Series of 5 Patients with Minimum 3–year Follow–up – *LaYow Christine Yu, MD*
- 11:53–11:59 a.m. MRI is Safe for Amputees with Titanium Press–Fit Osseointegration
LaYow Christine Yu, MD
- 12:00–12:08 p.m. Discussion

- 12:09–12:45 p.m. **Session XII: Adult Limb Deformity Part 2**
Moderator: Kevin Tetsworth, MD
- 12:09–12:15 p.m. Frontal Plane Knee Motion Following Surgical Correction of Genu
Valgum – *S. Robert Rozbruch, MD*
- 12:16–12:22 p.m. Chatbots in Limb Lengthening and Reconstruction Surgery. How
Accurate are the Responses? – *Christopher A. Iobst, MD*
- 12:23–12:29 p.m. Acute Pelvic Support Osteotomy in Patients Over 70 Years of Age in
Failed Hip Arthroplasties – *Leon Gonzalo Mora Herrera, MD*
- 12:30–12:36 p.m. Evaluation of How to Determine if a Lateral Ankle View is Acceptable
Using Rotated X-rays Generated from CT Scan 3D Models
DreMarcus Ferrell, MS
- 12:37–12:45 p.m. Discussion
- 12:46–1:00 p.m. President’s Remarks and Introduction of 2024–2025 President
Stephen M. Quinnan, MD and *Christopher A. Iobst, MD*