

33rd Annual Baltimore Limb Deformity Course

Thursday, August 24 – Saturday, August 26, 2023
(as of 5/09/2023)



Four Seasons Hotel Baltimore
Baltimore, Maryland, USA



Course Chairmen

John Herzenberg, MD
Philip McClure, MD

LLRS Liaison

David Podeszwa, MD

Directors

Michael Assayag, MD
Christopher Bibbo, DO
Janet Conway, MD
Noman Siddiqui, DPM
Shawn Standard, MD

Endorsed by:



Invited Faculty and Lab Assistants

Talal Abalkhail, MBBS	Riyadh, Saudi Arabia
Anil Bhawe, PT	Baltimore, Maryland
Brett Crist, MD	Columbia, Missouri
Wiemi Douoguih, MD	Washington, D.C.
Mark Eidelman, MD	Haifa, Israel
Yasser Elbatrawy, MD	Cairo, Egypt
Rudolf Ganger, MD	Vienna, Austria
Marie Gdalevitch, MD	Montreal, Canada
Vache Hambardzumyan, MD	Peterborough, New Hampshire
Beat Hintermann, MD	Basel, Switzerland
Christopher Iobst, MD	Columbus, Ohio
Guido LaPorta, DPM	Dunmore, Pennsylvania
Sara Mateen, DPM	Baltimore, Maryland
Paul Matuszewski, MD	Lexington, Kentucky
Kelsey Millonig, DPM	Des Moines, Iowa
Scott Nelson, MD	Port-au-Prince, Haiti
L. Reid Boyce Nichols, MD	Wilmington, Delaware
Robert O'Toole, MD	Baltimore, Maryland
Christof Radler, MD	Vienna, Austria
J. Spence Reid, MD	Hershey, Pennsylvania
Jessica Rivera, MD	New Orleans, Louisiana
Daniel Ruggles, DO	Miami, Florida
Roxa Ruiz, MD	Basel, Switzerland
Mikhail Samchukov, MD	Dallas, Texas
Gerhard Schmidmaier, MD	Heidelberg, Germany
John Sontich, MD	Cleveland, Ohio
William Terrell, MD	Marietta, Georgia
Ahmed Thabet, MD	El Paso, Texas
Rishi Thakral, MD	Oklahoma City, Oklahoma
Michael Thomas, DPM	Seattle, Washington
Harold van Bosse, MD	Saint Louis, Missouri

Day 1: Thursday, August 24

6:00–7:00	<u>Registration, Breakfast and Visit with Corporate Partners</u> <i>this activity is not accredited for continuing education</i>	Marine Room and Grand Ballroom Pre-function, Level 2
7:00–7:25	Welcome and Pre-test <i>John Herzenberg, MD or Philip McClure, MD</i> <i>this activity is not accredited for continuing education</i>	Grand Ballroom, Level 2
7:25–7:45	Introduction to Deformity Planning Concepts: The Apex/Axis Method and MAP the ABCs <i>Shawn Standard, MD</i>	
7:45–8:05	Bone Ninja Introduction <i>Shawn Standard, MD</i>	
8:05–8:15	Alphabet Soup of Limb Alignment (Frontal Plane): MAD, LDFA, MPTA, LDTA, MPFA, LPFA, and JLCA <i>Janet Conway, MD</i>	
8:15–8:30	Frontal Plane Measurements on Normal Bones (Planning Workshop) <i>Janet Conway, MD</i>	
8:30–9:15	Assessment of Limb Alignment: Frontal Plane MAP (<u>M</u> Measure Mechanical Axis Deviation, <u>A</u> nalyze Joint Angles, <u>P</u> ick the Bone) (Planning Workshop) <i>John Herzenberg, MD or Michael Assayag, MD</i>	
9:15–9:45	<u>Health Break and Visit with Corporate Partners</u> <i>this activity is not accredited for continuing education</i>	Grand Ballroom Pre-function, Level 2
9:45–10:15	ABCs of Deformity Correction: How to Approach Deformity Analysis and Osteotomy Planning <i>Shawn Standard, MD</i>	Grand Ballroom, Level 2
10:15–11:05	Tibia: Frontal Plane Single-level Deformities (Planning Workshop) <i>Michael Assayag, MD</i>	
11:05–11:50	Tibia: Frontal Plane Double-level Deformities (Planning Workshop) <i>Marie Gdalevitch, MD</i>	
11:50–12:05	It Looks Good, but Does It Feel Better? <i>Brett Crist, MD</i>	
12:05–12:35	<u>Luncheon and Visit with Corporate Partners</u> <i>this activity is not accredited for continuing education</i>	Grand Ballroom Pre-function, Level 2
12:35–12:45	Head to Designated Afternoon Labs <i>this activity is not accredited for continuing education</i>	
12:45–5:00	Thursday Afternoon Labs:	

Groups A-1 and A-2:

12:45–2:45	Six-axis External Fixation 4 Lab: Malunion and Valgus Deformity Facilitator: <i>John Sontich, MD</i> Lab Assistants: <i>TBA</i>	Azure & Indigo Rooms, Level 2
2:45–3:00	Head to Next Lab <i>this activity is not accredited for continuing education</i>	
3:00–5:00	Six-axis External Fixation 2 Lab: Blount Disease Facilitator: <i>Scott Nelson, MD</i> Lab Assistants: <i>TBA</i>	Grand Ballroom B, Level 2

Day 1: Thursday, August 24

Group B-1:

- 12:45–2:45 External Fixation Lab: Hindfoot/Ankle Fusion *Sienna Room, Level 2*
Facilitators: *Christopher Bibbo, DO, Guido LaPorta, DPM, and Noman Siddiqui, DPM*
Lab Assistants: *Sara Mateen, DPM and TBA*
- 2:45–3:00 Head to Next Lab
this activity is not accredited for continuing education
- 3:00–5:00 Six-axis External Fixation 3 Lab: Midfoot Cavus/Equinovarus Deformity *Marine Room, Level 2*
Facilitator: *Kelsey Millonig, DPM and William Terrell, MD*
Lab Assistants: *Michael Thomas, DPM and TBA*

Group B-2:

- 12:45–2:45 Six-axis External Fixation 3 Lab: Midfoot Cavus/Equinovarus Deformity *Marine Room, Level 2*
Facilitator: *Kelsey Millonig, DPM and William Terrell, MD*
Lab Assistants: *Michael Thomas, DPM and TBA*
- 2:45–3:00 Head to Next Lab
this activity is not accredited for continuing education
- 3:00–5:00 External Fixation Lab: Hindfoot/Ankle Fusion *Sienna Room, Level 2*
Facilitators: *Christopher Bibbo, DO, Guido LaPorta, DPM, and Noman Siddiqui, DPM*
Lab Assistants: *Sara Mateen, DPM and TBA*

Groups C-1 and C-2:

- 12:45–1:45 Fixator-assisted Plating Lab: Distal Femoral Valgus Deformity *Grand Ballroom A, Level 2*
Facilitator: *Janet Conway, MD*
Lab Assistants: *Brett Crist, MD, Paul Matuszewski, MD, and TBA*
- 1:45–1:55 Head to Next Lab
this activity is not accredited for continuing education
- 1:55–3:55 Six-axis External Fixation 1 Lab: Fracture with Translation, Equinus Deformity, and Valgus Deformity *Cobalt Ballroom, Level 2*
Facilitators: *Rudolf Ganger, MD and Christof Radler, MD*
Lab Assistants: *TBA*
- 3:55–4:00 Head to Next Lab
this activity is not accredited for continuing education
- 4:00–5:00 Varus Derotational Osteotomy Lab *Grand Ballroom A, Level 2*
Facilitator: *Shawn Standard, MD*
Lab Assistants: *Marie Gdalevitch, MD and L. Reid Boyce Nichols, MD*
- 6:00 Depart Hotel for Faculty and Former Fellows Dinner (*invitation only*) *Four Seasons Hotel, Lobby*
this activity is not accredited for continuing education

Day 2: Friday, August 25

- 6:15–7:00 Breakfast and Visit with Corporate Partners *Grand Ballroom Pre-function, Level 2*
this activity is not accredited for continuing education
- 7:00–7:05 Announcements *Grand Ballroom, Level 2*
Philip McClure, MD
this activity is not accredited for continuing education
- 7:05–7:15 Tibia Review Planning Exercises
Philip McClure, MD
- 7:15–7:30 Alphabet Soup of Limb Alignment (Sagittal Plane): PDF/A, PPT/A, SJLA, ADTA, and SMAA
Philip McClure, MD
- 7:30–8:00 Sagittal Plane Measurements (Planning Workshop)
Philip McClure, MD
- 8:00–8:45 Tibia: Sagittal Plane Deformities (Planning Workshop)
Michael Assayag, MD
- 8:45–9:10 Tibia: Introduction to the Oblique Plane
Shawn Standard, MD
- 9:10–9:30 Tibia: Oblique Plane Deformities (Planning Workshop)
Janet Conway, MD
- 9:30–9:45 Physical Exam of Limb Deformities
Janet Conway, MD
- 9:45–10:15 Health Break and Visit with Corporate Partners *Grand Ballroom Pre-function, Level 2*
this activity is not accredited for continuing education
- 10:15–12:45 *Please visit one of the two breakout sessions listed below:*
- Breakout Session: Focus on Ankle and Foot Deformities**
- 10:15–11:00 Preoperative Foot and Ankle Deformity Planning *Grand Ballroom B, Level 2*
Noman Siddiqui, DPM
- 11:00–11:35 Sagittal Plane Deformity: Bone Ninja Planning Workshop
Guido LaPorta, DPM
- 11:35–12:10 Frontal Plane Deformity: Bone Ninja Planning Workshop
Kelsey Millionig, DPM
- 12:10–12:45 Transverse Plane Deformity: Bone Ninja Planning Workshop
Marie Gdalevitch, MD
- Breakout Session: Focus on Femoral Deformities and Limb Length Discrepancy (Pediatric and Adult Orthopedics)**
- 10:15–11:15 Femur: Frontal Plane Single-level Deformities (Planning Workshop) *Grand Ballroom A, Level 2*
Scott Nelson, MD
- 11:15–11:35 Measuring Limb Length Discrepancies and Radiographic Assessment
Shawn Standard, MD

Day 2: Friday, August 25

11:35–12:15 Femur: Frontal Plane Double-level Deformities (Planning Workshop)
Scott Nelson, MD

12:15–12:30 Fixing It Right the First Time: Assessing Rotational, Frontal,
and Sagittal Alignment in Acute Fracture Management
Robert O'Toole, MD

12:30–12:45 The Tibial Segmental Bone Defect: Strategies in Management
Paul Matuszewski, MD

12:45–1:15 Luncheon and Visit with Corporate Partners *Grand Ballroom Pre-function, Level 2*
this activity is not accredited for continuing education

1:15–1:25 Head to Designated Afternoon Labs
this activity is not accredited for continuing education

1:25–5:30 Friday Afternoon Labs:

Groups A-1 and A-2:

1:25–2:25 Six-axis External Fixation 5 Lab: Mid-shaft Tibial Deformity *Grand Ballroom A, Level 2*
Facilitator: *J. Spence Reid, MD*
Lab Assistants: *TBA*

2:25–2:30 Head to Next Lab
this activity is not accredited for continuing education

2:30–5:30 Six-axis External Fixation 1 Lab: Fracture with Translation, *Cobalt Ballroom, Level 2*
Valgus Deformity, and Blount Disease
Facilitators: *Rudolf Ganger, MD, John Herzenberg, MD, and Christof Radler, MD*
Lab Assistants: *TBA*

Groups B-1 and B-2:

1:25–3:25 Six-axis External Fixation 4 Lab: Malaligned Ankle Fusion *Azure & Indigo Rooms, Level 2*
Facilitator: *Guido LaPorta, DPM*
Lab Assistants: *Sara Mateen, DPM and Michael Thomas, DPM*

3:25–3:30 Head to Next Lab
this activity is not accredited for continuing education

3:30–5:30 Six-axis External Fixation 2 Lab: Miter Frame *Grand Ballroom B, Level 2*
Facilitators: *Michael Assayag, MD, Guido LaPorta, DPM, Kelsey Millonig, DPM,*
and Noman Siddiqui, DPM
Lab Assistants: *Sara Mateen, DPM and Michael Thomas, DPM*

Group C-1:

1:25–3:25 Six-axis External Fixation 3 Lab: Blount Disease *Marine Room, Level 2*
Facilitators: *Mikhail Samchukov, MD and TBA*
Lab Assistants: *TBA*

3:25–3:30 Head to Workshop
this activity is not accredited for continuing education

3:30–5:30 Internal Lengthening Nail Workshop *Sienna Room, Level 2*
Facilitators: *Philip McClure, MD and Daniel Ruggles, DO*
Lecturers: *Rudolf Ganger, MD, John Herzenberg, MD, Christof Radler, MD,*
and Shawn Standard, MD

Day 2: Friday, August 25

Group C-2:

- 1:25–3:25 Internal Lengthening Nail Workshop *Sienna Room, Level 2*
Facilitators: *Michael Assayag, MD and Philip McClure, MD*
Lecturers: *Rudolf Ganger, MD, John Herzenberg, MD, Christof Radler, MD,*
Daniel Ruggles, DO, and Shawn Standard, MD
- 3:25–3:30 Head to Next Lab
this activity is not accredited for continuing education
- 3:30–5:30 Six-axis External Fixation 3 Lab: Blount Disease *Marine Room, Level 2*
Facilitators: *Mikhail Samchukov, MD and TBA*
Lab Assistants: *TBA*
- 5:30–5:40 **Coffee Break** *Cobalt Ballroom Pre-function, Level 2*
this activity is not accredited for continuing education
- 5:40–5:45 Head to Case Presentation Sessions
this activity is not accredited for continuing education
- 5:45–7:00 **Case Presentations**
- Pediatric Orthopedics – Moderators: Philip McClure, MD and Shawn Standard, MD** *Grand Ballroom A, Level 2*
Expert Panel: L. Reid Boyce Nichols, MD, Daniel Ruggles, MD,
and David Podeszwa, MD
- 5:45–7:00 Case Calamities: Show Us What You Got
Presentations by faculty and former fellows
- Post-traumatic Deformities – Moderators: Michael Assayag, MD and Janet Conway, MD** *Azure Room, Level 2*
Expert Panel: Brett Crist, MD, Paul Matuszewski, MD, Robert O’Toole, MD,
J. Spence Reid, MD, and William Terrell, MD
- 5:45–7:00 Case Calamities: Show Us What You Got
Presentations by faculty and former fellows
- Foot and Ankle – Moderator: Noman Siddiqui, DPM** *Grand Ballroom B, Level 2*
Expert Panel: Christopher Bibbo, DO, Marie Gdalevitch, MD, Beat Hintermann, MD,
Guido LaPorta, DPM, and Roxa Ruiz, MD
- 5:45–7:00 Case Calamities: Show Us What You Got
Presentations by faculty and former fellows
- 7:00 Conclude
- 7:15–9:15 **Reception** (*ticket required, resort attire recommended*) *Splash Pool Terrace, Level 4*
this activity is not accredited for continuing education

Day 3: Saturday, August 26

6:30–7:00 Breakfast and Visit with Corporate Partners
this activity is not accredited for continuing education

Grand Ballroom Pre-function, Level 2

7:00–10:00 *Please visit one or more of the breakout sessions listed below:*

Breakout Session: Foot and Ankle Specialists

Grand Ballroom B, Level 2

- 7:00–7:30 Post-traumatic Deformity Correction
Roxa Ruiz, MD
- 7:30–7:50 Supramalleolar Deformity in Ankle Replacement
Beat Hintermann, MD
- 7:50–8:10 Acute Lengthening in Brachymetatarsia
Sara Mateen, DPM
- 8:10–8:30 Complex Circular Fixation of the Foot and Ankle
Marie Gdalevitch, MD
- 8:30–8:50 Management of Complications with External Fixation
John Sontich, MD
- 8:50–9:15 Biomechanical Impact of Foot and Ankle Deformity
Anil Bhave, PT
- 9:15–9:45 My Approach to Adult Flexible Flatfoot
Beat Hintermann, MD
- 9:45–10:00 Discussion

Breakout Session: Pediatric & Adult Orthopedic Specialists (Combined)

Grand Ballroom A, Level 2

- 7:00–7:30 Knee Flexion Contractures Secondary to Limb Lengthening
Shawn Standard, MD
- 7:30–8:15 Femur and Knee: Introduction to Sagittal Plane Analysis (Lecture and Planning Workshop)
Shawn Standard, MD
- 8:15–8:20 Adult Specialists Head to Sienna Room While Pediatric Specialists Remain

Breakout Session: Pediatric Orthopedic Specialists

Grand Ballroom A, Level 2

- 8:20–8:35 Adolescent Blount Disease
Daniel Ruggles, DO
- 8:35–8:50 Guided Growth: Indications and Limitations
L. Reid Boyce Nichols, MD
- 8:50–9:05 Dynamization for Fracture and Lengthening
Mikhail Samchukov, MD
- 9:05–9:20 SUPER Blount Procedure
Philip McClure, MD
- 9:20–9:35 Hip Preservation: Tips and Tricks
Mark Eidelman, MD

Day 3: Saturday, August 26

9:35–9:50 Strategies for Lengthening with Congenital Femoral Deficiency
Shawn Standard, MD

9:50–10:00 Discussion

Breakout Session: Adult Orthopedic Specialists

Sienna Room, Level 2

8:20–8:30 Distal Femoral Deformity Scenarios with Limb Length Discrepancy
and Nonunion
J. Spence Reid, MD

8:30–8:45 Height Enhancement Surgery
Michael Assayag, MD

8:45–9:05 Deformity Correction with Intramedullary Nails
Paul Matuszewski, MD

9:05–9:20 I Need Bone Supplementation for My Segmental Bone Defect:
How Do I Choose?
Gerhard Schmidmaier, MD

9:20–9:35 Reflections on 25 Years of Lengthening
William Terrell, MD

9:35–9:50 Strategies for High Tibial Osteotomies with Ligamentous Deficiencies
Wiemi Douoguih, MD

9:50–10:00 Discussion

10:00–10:30 Health Break and Visit with Corporate Partners
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Grand Ballroom Pre-function, Level 2

10:30–10:40 Femur Review Planning Exercises
Daniel Ruggles, DO

Grand Ballroom, Level 2

10:40–11:05 Contracture Management and the Latest Advances in Physical Therapy
Anil Bhave, PT

11:05–11:25 Radiology Considerations
Janet Conway, MD

11:25–11:40 Joint Line Obliquity
Philip McClure, MD

11:40–11:45 Discussion

11:45–11:55 Closing Remarks and Post-test
John Herzenberg, MD or Philip McClure, MD
this activity is not accredited for continuing education

11:55–12:25 Luncheon
this activity is not accredited for continuing education

Grand Ballroom Pre-function, Level 2

12:25–12:40 Solutions to Surgical Stress
Christopher Iobst, MD

Grand Ballroom, Level 2

Day 3: Saturday, August 26

12:40–12:45 Head to Afternoon Lab
this activity is not accredited for continuing education

12:45–5:00 Saturday Afternoon Labs:

Group A-1:

12:45–2:45 Six-axis External Fixation 3 Lab: Hyper Equinus *Marine Room, Level 2*
Facilitator: *William Terrell, MD*
Lab Assistants: *Mark Eidelman, MD, Mikhail Samchukov, MD, and TBA*

2:45–3:00 Head to Workshop
this activity is not accredited for continuing education

3:00–5:00 Internal Lengthening Nail Workshop *Sienna Room, Level 2*
Facilitator: *Michael Assayag, MD*
Lecturers: *John Herzenberg, MD, Philip McClure, MD, Christof Radler, MD,*
and Daniel Ruggles, DO
Lab Assistant: *John Sontich, MD*

Group A-2:

12:45–2:45 Internal Lengthening Nail Workshop *Sienna Room, Level 2*
Facilitator: *Michael Assayag, MD*
Lecturers: *John Herzenberg, MD, Philip McClure, MD, Christof Radler, MD,*
and Daniel Ruggles, DO
Lab Assistant: *John Sontich, MD*

2:45–3:00 Head to Next Lab
this activity is not accredited for continuing education

3:00–5:00 Six-axis External Fixation 3 Lab: Hyper Equinus *Marine Room, Level 2*
Facilitator: *William Terrell, MD*
Lab Assistants: *Mark Eidelman, MD, Mikhail Samchukov, MD, and TBA*

Groups B-1 and B-2:

12:45–1:45 Six-axis External Fixation 6 Lab: Ankle Varus and Recurvatum *Grand Ballroom A, Level 2*
Facilitators: *Guido LaPorta, DPM and Noman Siddiqui, DPM*
Lab Assistants: *Sara Mateen, DPM, Kelsey Millonig, DPM,*
and Michael Thomas, DPM

1:45–2:00 Head to Next Lab
this activity is not accredited for continuing education

2:00–5:00 Six-axis External Fixation 1 Lab: Fracture with Translation,
Varus Deformity, and Rotational Deformity *Cobalt Ballroom, Level 2*
Facilitators: *Rudolf Ganger, MD and Christof Radler, MD*
Lab Assistants: *TBA*

Day 3: Saturday, August 26

Group C-1:

12:45–2:45 Six-axis External Fixation 2 Lab: Malunion with Procurvatum *Grand Ballroom B, Level 2*
Facilitator: *L. Reid Boyce Nichols, MD*
Lab Assistants: *TBA*

2:45–3:00 Head to Next Lab
this activity is not accredited for continuing education

3:00–5:00 Coxa Vara and Knee Flexion Deformity Lab *Azure and Indigo Rooms, Level 2*
Facilitators: *John Herzenberg, MD and Shawn Standard, MD*
Lab Assistants: *Marie Gdalevitch, MD and TBA*

Group C-2:

12:45–2:45 Coxa Vara and Knee Flexion Deformity Lab *Azure and Indigo Rooms, Level 2*
Facilitators: *John Herzenberg, MD and Shawn Standard, MD*
Lab Assistants: *Marie Gdalevitch, MD and TBA*

2:45–3:00 Head to Next Lab
this activity is not accredited for continuing education

3:00–5:00 Six-axis External Fixation 2 Lab: Malunion with Procurvatum *Grand Ballroom B, Level 2*
Facilitator: *L. Reid Boyce Nichols, MD*
Lab Assistants: *TBA*

5:00 Conclusion