29th Annual
Baltimore Limb Deformity Course
Thursday, August 22 – Saturday, August 24, 2019
(as of 06.06.19)

Four Seasons Hotel
Baltimore, Maryland, USA

Course Chair
John Herzenberg, MD

Course Directors
Michael Assayag, MD
Janet Conway, MD
Philip McClure, MD
Noman Siddiqui, DPM
Shawn Standard, MD
Faculty

Hummira Abawi, DPM  
Kristin Alves, MD  
Rainer Baumgart, MD  
Anil Bhave, PT  
Christopher Bibbo, DO  
James Binski, MD  
Noam Bor, MD  
Alexander Cherkashin, MD  
Richard Davidson, MD  
Ronald Delanois, MD  
Mark Eidelman, MD  
Hady Eltayeby, MD  
Rudolf Ganger, MD  
Marie Gdalevitch, MD  
Vache Hambardzumyan, MD  
Lee Hlad, DPM  
Byron Hutchinson, DPM  
Joshua Hyman, MD  
Christopher Iobst, MD  
Guido LaPorta, DPM  
Salih Marangoz, MD  
Scott Nelson, MD  
L. Reid Nichols, MD  
B. Kyle Potter, MD  
Christof Radler, MD  
Jerome Reichmister, MD  
J. Spence Reid, MD  
Edgardo Rodriguez-Collazo, DPM  
Sanjeev Sabharwal, MD  
Mikhail Samchukov, MD  
Leonid Solomin, MD  
John Sontich, MD  
William Terrell, MD  
Rishi Thakral, MD  
Jacob Wynes, DPM  

Baltimore, Maryland  
Boston, Massachusetts  
Munich, Germany  
Baltimore, Maryland  
Dayton, Ohio  
Afula, Israel  
Dallas, Texas  
Philadelphia, Pennsylvania  
Baltimore, Maryland  
Haifa, Israel  
Alexandria, Egypt  
Vienna, Austria  
Montreal, Canada  
Doha, Qatar  
Westerville, Ohio  
Burien, Washington  
New York City, New York  
Columbus, Ohio  
North Abington Township, Pennsylvania  
Istanbul, Turkey  
Loma Linda, California  
Wilmington, Delaware  
Washington, District of Columbia  
Vienna, Austria  
Baltimore, Maryland  
Hershey, Pennsylvania  
Chicago, Illinois  
Lafayette, California  
Coppell, Texas  
Saint Petersburg, Russia  
Cleveland, Ohio  
Marietta, Georgia  
Oklahoma City, Oklahoma  
Baltimore, Maryland
Day 1: Thursday, August 22

6:00–7:00 Registration, Breakfast, and Visit with Corporate Partners

7:00–7:20 Welcome
John Herzenberg, MD, Jerome Reichmister, MD, and Ronald Delanois, MD

7:20–7:40 Pre-Op Planning: The Axis/Apex Method
Shawn Standard, MD

7:40–7:50 Alphabet Soup of Limb Alignment (Frontal Plane): MAD, LDFA, MPTA, LDTA, MPFA, LPFA, and JLCA
Janet Conway, MD

7:50–8:05 Frontal Plane Measurements on Normal Bones (Planning Workshop)
Janet Conway, MD

8:05–8:45 Assessment of Limb Alignment: Frontal Plane MAP (Measure Mechanical Axis Deviation, Analyze Joint Angles, Pick the Bone) (Planning Workshop)
John Herzenberg, MD

8:45–9:15 Coffee Break and Visit Corporate Partners

9:15–9:40 The ABCs (Apex, Bone Cut, Correction)
Shawn Standard, MD

9:40–10:30 Tibia: Frontal Plane Single-level Deformities (Planning Workshop)
Michael Assayag, MD

10:30–11:15 Tibia: Frontal Plane Double-level Deformities (Planning Workshop)
Marie Gdalevitch, MD

11:15–11:45 Buffet Luncheon

11:45–12:05 Radiography Considerations in Limb Deformity
Janet Conway, MD

11:55–12:05 Alphabet Soup of Limb Alignment (Sagittal Plane): PDFA, PPTA, and ADTA
Philip McClure, MD

12:05–12:30 Sagittal Plane Measurements (Planning Workshop)
Philip McClure, MD

12:30–1:15 Tibia: Sagittal Plane Deformities (Planning Workshop)
Michael Assayag, MD

1:15–1:30 Tibia: Oblique Plane Deformities Overview
Shawn Standard, MD

1:30–1:50 Tibia: Oblique Plane Deformities (Planning Workshop)
Janet Conway, MD

1:50–2:10 Pin and Wire Placement for External Fixators
Leonid Solomin, MD

2:10–2:45 Introduction to the Bone Ninja
Shawn Standard, MD

2:45–2:55 Head to Designated Afternoon Labs
Day 1: Thursday, August 22

2:55–7:00  Thursday Afternoon Labs:

**Groups A-1 and A-2:**

2:55–4:55  Six-Axis External Fixation 4 Lab  
Facilitator: *John Sontich, MD*  
Lab Assistants: TBA  
(Azure & Indigo Rooms, Level 2)

4:55–5:00  Head to next lab

5:00–7:00  Six-Axis External Fixation 2 Lab  
Facilitator: *Scott Nelson, MD*  
Lab Assistants: TBA  
(Grand Ballroom B, Level 2)

**Group B-1:**

2:55–4:55  Internal Fixation Lab  
Facilitators: *Byron Hutchinson, DPM, and Lee Hlad, DPM*  
Lab Assistants: TBA  
(Sienna Room, Level 2)

4:55–5:00  Head to next lab

5:00–7:00  Six-Axis External Fixation 3 Lab  
Facilitators: *William Terrell, MD, Guido LaPorta, DPM, and Edgardo Rodriguez-Collazo, DPM*  
Lab Assistants: TBA  
(Marine Room, Level 2)

**Group B-2:**

2:55–4:55  Six-Axis External Fixation 3 Lab  
Facilitators: *William Terrell, MD, Guido LaPorta, DPM, and Edgardo Rodriguez-Collazo, DPM*  
Lab Assistants: TBA  
(Marine Room, Level 2)

4:55–5:00  Head to next lab

5:00–7:00  Internal Fixation Lab  
Facilitators: *Byron Hutchinson, DPM, and Lee Hlad, DPM*  
Lab Assistants: TBA  
(Sienna Room, Level 2)

**Groups C-1 and C2:**

2:55–3:55  Fixator-Assisted Plating Lab: Distal Femoral Valgus Deformity  
Facilitator: *Janet Conway, MD*  
Lab Assistants: TBA  
(Vermilion & Umber Rooms, Level 4)

3:55–4:00  Head to next lab

4:00–7:00  Six-Axis External Fixation 1 Lab  
Facilitators: *Rudolf Ganger, MD, and Christof Radler, MD*  
Lab Assistants: TBA  
(Cobalt Ballroom, Level 2)

7:30–9:30  Welcome Reception and Dinner (*ticket required, resort attire recommended*)  
(Splash Pool Terrace, Level 4)
Day 2: Friday, August 23

6:15–7:00  Breakfast and Visit with Corporate Partners  
            Grand Ballroom Pre-function, Level 2

7:00–7:10  Announcements  
            John Herzenberg, MD  
            Grand Ballroom

7:10–8:00  Femur: Frontal Plane Single-level Deformities (Planning Workshop)  
            John Herzenberg, MD

8:00–8:10  Principles of Frame Assembly for Deformity Correction  
            Leonid Solomin, MD

8:10–8:30  Coffee Break and Visit with Corporate Partners  
            Grand Ballroom Pre-function

8:30–11:55  Please visit one of the two breakout sessions listed below:

**Breakout Session: Focus on Ankle and Foot Deformities**  
            Grand Ballroom B

8:30–9:05  Pre-Op Planning: The Axis/Apex/Third Line Method  
            Lee Hlad, DPM

9:05–9:30  Alphabet Soup of Foot and Ankle Alignment: Frontal, Sagittal, and Transverse Planes  
            Jacob Wynes, DPM

9:30–10:30  Foot and Ankle: Frontal, Sagittal, and Transverse Plane Deformities  
            (Planning Workshop)  
            Noman Siddiqui, DPM

10:30–10:50  Coffee Break and Visit with Corporate Partners  
            Grand Ballroom Pre-function

10:50–11:10  Assessment of Limb Alignment and Subtalar/Ankle Joint Function  
            Guido LaPorta, DPM  
            Grand Ballroom B

11:10–11:50  Surgical Biomechanics for Foot and Ankle Deformity Correction  
            Guido LaPorta, DPM

11:50–11:55  Discussion

**Breakout Session: Focus on Femoral Deformities**  
            Grand Ballroom A

8:30–9:20  Femur: Frontal Plane Double-level Deformities (Planning Workshop)  
            Rishi Thakral, MD

9:20–10:05  Reverse Planning Method (Lecture and Planning Workshop)  
            Rainer Baumgart, MD

10:05–10:30  Femoral Planning in Reverse with Bone Ninja (Demonstration)  
            Philip McClure, MD

10:30–10:50  Coffee Break and Visit with Corporate Partners  
            Grand Ballroom Pre-function

10:50–11:15  Sagittal Plane Deformities: Knee Flexion Contracture  
            Secondary to Lengthening  
            Shawn Standard, MD  
            Grand Ballroom A

11:15–11:55  Femur and Knee: Sagittal Plane Deformities (Lecture and Planning Workshop)  
            Shawn Standard, MD
Day 2: Friday, August 23

11:55–12:20  Boxed Luncheon *(grab and return to Ballroom)*  
*Grand Ballroom Pre-function*

12:20–12:45  Special Lecture: Non-orthopedic Distraction Osteogenesis  
*Mikhail Samchukov, MD*  
*Grand Ballroom*

12:45–12:55  Head to Designated Afternoon Labs

12:55–5:00  Friday Afternoon Labs:

**Groups A-1 and A-2:**

- **12:55–1:55**  Six-Axis External Fixation 5 Lab  
  Facilitator: *J. Spence Reid, MD*  
  Lab Assistants: TBA  
  *Vermilion & Umber Rooms, Level 4*

- **1:55–2:00**  Head to next lab

- **2:00–5:00**  Six-Axis External Fixation 1 Lab  
  Facilitators: *Rudolf Ganger, MD, and Christof Radler, MD*  
  Lab Assistants: TBA  
  *Cobalt Ballroom, Level 2*

**Groups B-1 and B-2:**

- **12:55–2:55**  Circular Fixation for Ankle Fusion Lab  
  Facilitators: *Guido LaPorta, DPM, and Noman Siddiqui, DPM*  
  Lab Assistants: TBA  
  *Azure & Indigo Rooms, Level 2*

- **2:55–3:00**  Head to next lab

- **3:00–5:00**  Six-Axis External Fixation 2 Lab  
  Facilitator: *Lee Hlad, DPM*  
  Lab Assistants: TBA  
  *Grand ballroom B, Level 2*

**Group C-1:**

- **12:55–2:55**  Six-Axis External Fixation 3 Lab  
  Facilitator: *Christopher Iobst, MD*  
  Lab Assistants: TBA  
  *Marine Room, Level 2*

- **2:55–3:00**  Head to next lab

- **3:00–5:00**  Internal Lengthening Nail Workshop  
  Facilitator: *John Herzenberg, MD*  
  Lecturers: *Rudolph Ganger, MD, and Christof Radler, MD*  
  Lab Assistants: TBA  
  *Sienna Room, Level 2*

**Group C-2:**

- **12:55–2:55**  Internal Lengthening Nail Workshop  
  Facilitator: *John Herzenberg, MD*  
  Lecturers: *Rudolph Ganger, MD, and Christof Radler, MD*  
  Lab Assistants: TBA  
  *Sienna Room, Level 2*

- **2:55–3:00**  Head to next lab

- **3:00–5:00**  Six-Axis External Fixation 3 Lab  
  Facilitator: *Christopher Iobst, MD*  
  Lab Assistants: TBA  
  *Marine Room, Level 2*
Day 2: Friday, August 23

5:00–5:15 Light Refreshment Break and Head to Participant Case Presentations  
Cobalt Ballroom Pre-function, Level 2

5:15–6:45 Curbside Consults: Participant Case Presentations

*Cases must be provided to the Registration Desk by 6 p.m. on Thursday on a USB drive in either PowerPoint or KeyNote format. Cases submitted after this time may not be considered for presentation. All cases will be previewed and sequenced by a moderator.*

**Pediatric Cases – Moderators: Joshua Hyman, MD, L. Reid Nichols, MD, and Sanjeev Sabharwal, MD**  
Grand Ballroom A, Level 2

- 5:15–5:35 History of Clubfoot Correction  
  Mark Eidelman, MD
- 5:35–6:45 Participant Case Presentations

**Adult Cases – Moderators: Michael Assayag, MD, and William Terrell, MD**  
Vermilion Room, Level 4

- 5:15–5:35 Internal Lengthening Nails  
  Rainer Baumgart, MD
- 5:35–6:45 Participant Case Presentations

**Foot and Ankle Cases – Moderators: Noman Siddiqui, DPM, and Christopher Bibbo, DO**  
Grand Ballroom B, Level 2

- Expert Panel: Byron Hutchinson, DPM, Guido LaPorta, DPM, Lee Hlad, DPM, and Edgardo Rodriguez-Collazo, DPM
- 5:15–5:35 Nerve Considerations in Deformity Correction  
  Edgardo Rodriguez-Collazo, DPM
- 5:35–6:45 Participant Case Presentations

6:45 Adjourn

7:30 Faculty and Former Fellows Crab Feast *(invitation only)*  
Four Seasons Hotel, Lobby
Day 3: Saturday, August 24

7:15–8:00 Breakfast and Visit Corporate Partners

8:00–8:10 Announcements and Raffles

8:10–8:25 Physical Exam of Limb Deformities

8:25–8:35 Contracture Management

8:35–9:00 Special Lecture: Osseointegration for Amputees

9:00–9:30 Coffee Break and Visit Corporate Partners

9:30–12:10 Please visit one of the three breakout sessions listed below:

Breakout Session: Adult Orthopedic Specialists

9:30–9:55 Bone Ninja Cases (Workshop)

9:55–10:05 Bone Ninja as an Educational Tool for Patients

10:05–10:20 The AK-47 of Hexapods

10:20–10:35 Fixator-Assisted Nailing

10:35–10:50 Fixator-Assisted Locked Plating

10:50–11:05 Limb Reconstruction Techniques for Periprosthetic Fracture

11:05–11:35 Limb Reconstruction Strategies for Tumors

11:35–11:50 Hexapods at 20: Where Are We?

11:50–12:05 Bone Transport Options

12:05–12:10 Discussion

Breakout Session: Foot and Ankle Specialists

9:30–10:05 Bone Ninja Cases (Workshop)

10:05–10:20 External Fixation Solutions in the Foot and Ankle

10:20–10:35 Clinical Biomechanics of External Fixation
Day 3: Saturday, August 24

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<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<td>10:35–10:45</td>
<td>Alternative Solutions for Ankle Arthritis</td>
<td>Guido LaPorta, DPM</td>
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<td>10:45–11:00</td>
<td>Six-Axis Correction for Pediatric Cases in Foot and Ankle</td>
<td>Lee Hlad, DPM</td>
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<td>11:00–11:15</td>
<td>Distal Tibial Lengthening and Ankle Fusion in Charcot</td>
<td>Noman Siddiqui, DPM</td>
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<td>11:15–11:30</td>
<td>Percutaneous Bunion Correction: Method and Outcomes</td>
<td>Marie Gdalevitch, MD</td>
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<td>11:30–11:45</td>
<td>Foot and Ankle Deformity Correction in Developing Countries</td>
<td>Byron Hutchinson, DPM</td>
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<td>11:45–12:00</td>
<td>Flaps for the Foot and Ankle: Tips and Tricks</td>
<td>Christopher Bibbo, DO</td>
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<td>12:00–12:10</td>
<td>Discussion</td>
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**Breakout Session: Pediatric Orthopedic Specialists**  
*Grand Ballroom A*

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<tr>
<th>Time</th>
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<th>Speaker(s)</th>
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<tr>
<td>9:30–10:00</td>
<td>Bone Ninja Cases (Workshop)</td>
<td>Shawn Standard, MD</td>
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<td>10:00–10:15</td>
<td>Six-Axis Correction for Pediatric Cases</td>
<td>Mark Eidelman, MD</td>
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<td>10:15–10:25</td>
<td>External Fixation Solutions for Missed Monteggia Fractures</td>
<td>Noam Bor, MD</td>
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<td>10:25–10:45</td>
<td>Workshop: Incorporating The Multiplier into Your Practice</td>
<td>John Herzenberg, MD</td>
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<td>10:45–10:55</td>
<td>Lessons Learned in Lower Limb Deformity Correction</td>
<td>Sanjeev Sabharwal, MD</td>
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<td>10:55–11:05</td>
<td>Radiographic Assessment of Limb Length Discrepancy</td>
<td>Shawn Standard, MD</td>
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<td>11:05–11:10</td>
<td>Contractures that Mimic Limb Length Discrepancy</td>
<td>Kristen Alves, MD</td>
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<td>11:10–11:15</td>
<td>Introduction to Guided Growth</td>
<td>Hady Eltayeby, MD</td>
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<td>11:15–11:30</td>
<td>Lengthening for Congenital Femoral Deficiency</td>
<td>Shawn Standard, MD</td>
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<td>11:30–11:45</td>
<td>Blount Disease: Treatment Options</td>
<td>Sanjeev Sabharwal, MD</td>
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<td>11:45–11:55</td>
<td>Hemiplateau Elevation for Blount Disease: When, How, and Why</td>
<td>Richard Davidson, MD</td>
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<td>11:55–12:05</td>
<td>New Concepts in Dynamization of Circular Frames</td>
<td>Alexander Cherkashin, MD</td>
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<td>12:05–12:10</td>
<td>Discussion</td>
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Day 3: Saturday, August 24

12:10–1:20   Luncheon on Own

1:20–1:25   Head to Designated Afternoon Labs

1:25–5:30   Saturday Afternoon Labs:

**Group A-1:**
1:25–3:25   Six-Axis External Fixation 3 Lab
           Facilitator: William Terrell, MD
           Lab Assistants: TBA

3:25–3:30   Head to next lab

3:30–5:30   Internal Lengthening Nail Lab
           Facilitator: Michael Assayag, MD
           Lecturers: Anil Bhave, PT, John Herzenberg, MD, and Christof Radler, MD
           Lab Assistants: TBA

**Group A-2:**
1:25–3:25   Internal Lengthening Nail Lab
           Facilitator: Michael Assayag, MD
           Lecturers: Anil Bhave, PT, John Herzenberg, MD, and Christof Radler, MD
           Lab Assistants: TBA

3:25–3:30   Head to next lab

3:30–5:30   Six-Axis External Fixation 3 Lab
           Facilitator: William Terrell, MD
           Lab Assistants: TBA

**Groups B-1 and B-2:**
           Facilitator: Noman Siddiqui, DPM
           Lab Assistants: TBA

2:25–2:30   Head to next lab

2:30–5:30   Six-Axis External Fixation 1 Lab
           Facilitators: Rudolf Ganger, MD, and Christof Radler, MD
           Lab Assistants: TBA

**Group C-1:**
1:25–3:25   Six-Axis External Fixation 2 Lab
           Facilitator: L. Reid Nichols, MD
           Lab Assistants: TBA

3:25–3:30   Head to next lab

3:30–5:30   Coxa Vara and Knee Flexion Deformity Lab
           Facilitators: Shawn Standard, MD, and Joshua Hyman, MD
           Lab Assistants: TBA

**Group C-2:**
1:25–3:25   Coxa Vara and Knee Flexion Deformity Lab
           Facilitators: Shawn Standard, MD, and Joshua Hyman, MD
           Lab Assistants: TBA

3:25–3:30   Head to next lab

3:30–5:30   Six-Axis External Fixation 2 Lab
           Facilitator: L. Reid Nichols, MD
           Lab Assistants: TBA

5:30   Adjourn