## 34th Annual Baltimore Limb Deformity Course

Thursday, August 22 – Saturday, August 24, 2024

(as of 7/15/24)



Four Seasons Hotel Baltimore Baltimore, Maryland, USA



**CARE BRAVELY** 

### **Course Chairmen**

Philip McClure, MD John Herzenberg, 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 Hummira Abawi, DPM Baltimore, Maryland Marcel Abouassaly, MD Calgary, Canada Elhanan Bar-On, MD Tel Aviv, Israel Samantha Bark, DPM Galion, Ohio Anil Bhave, PT Baltimore, Maryland James Blair, MD Atlanta, Georgia Patrick Bosch, MD Albuquerque, New Mexico Alexander Cherkashin, MD Dallas, Texas **Brett Crist, MD** Columbia, Missouri Ronald Delanois, MD Baltimore, Maryland Matthew Deren, MD Cleveland, Ohio Mark Eidelman, MD Haifa, Israel Jamie Ferguson, MB ChB Oxford, United Kingdom Nando Ferreira, MB ChB Stellenbosch, South Africa Jill Flanagan, MD Atlanta, Georgia Jeanne Franzone, MD Wilmington, Delaware David Frumberg, MD New Haven, Connecticut Christine Goodbody, MD Philadelphia, Pennsylvania David Gottlieb, DPM Baltimore, Maryland Connor Green, MB BCh Dublin, Ireland Matthew Greenblatt, DPM West Palm Beach, Florida Vache Hambardzumyan, MD Peterborough, New Hampshire Roberto Hernandez-Irizarry, MD Atlanta, Georgia Mark Huang, MD Hamilton, New Zealand West Palm Beach, Florida Aaron Huser, DO Saad Ilyas, MBBS Lahore, Pakistan **Christopher Iobst, MD** Columbus, Ohio Jessica Knight, DPM Chicago, Illinois Iara Lacerda, MD Danville, Pennsylvania Guido LaPorta, DPM Binghamton, NY Paul Matuszewski, MD Lexington, Kentucky James McWilliam, MD White Plains, New York Kelsey Millonig, DPM Des Moines, Iowa Mark Myerson, MD Denver, Colorado Scott Nelson, MD Loma Linda, California Jennifer Monaco, DPM Columbus, Georgia L. Reid Boyce Nichols, MD Wilmington, Delaware Basilia Nwankwo, MD Washington, DC Robert O'Toole, MD Baltimore, Maryland Christof Radler, MD Vienna, Austria Jessica Rivera, MD New Orleans, Louisiana Daniel Ruggles, DO Miami, Florida Mikhail Samchukov, MD Dallas, Texas Sanoj Shahul, MD Baltimore, Maryland William Terrell, MD Marietta, Georgia Kevin Tetsworth, MD Brisbane, Australia Ahmed Thabet, MD El Paso, Texas

Rishi Thakral, MD Indresh Venkatarayappa, MD Francisco Violante, Jr., MD Philip Wrotslavsky, DPM Jeffrey Young, MD Oklahoma City, Oklahoma Dayton, Ohio São Paulo, Brazil San Diego, California Stanford, CA

<b>Day 1:</b>	Thursday,	August 22
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6:00-7:00	Regis	stration, Breakfast, and Visit with Corporate Partners	Marine Room and Grand Ballroom Pre-function, Level 2
7:00-7:25	Welco		Grand Ballroom, Level 2
		Philip McClure, MD, or John Herzenberg, MD, and Ronald	l Delanois, MD
7:25–7:45	Introd	luction to Deformity Planning Concepts: The Apex/Axis Meth Shawn Standard, MD	nod and MAP the ABCs
7:45–8:05	Bone	Ninja Sensei Introduction Shawn Standard, MD	
8:05–8:15	-	abet Soup of Limb Alignment (Frontal Plane): MAD, LDFA, MFA, and JLCA  L. Reid Boyce Nichols, MD	MPTA, LDTA, MPFA,
8:15–8:30	Fronta	al Plane Measurements on Normal Bones (Planning Workshop <i>Janet Conway, MD</i>	0)
8:30–9:15		ssment of Limb Alignment: Frontal Plane MAP ( <u>M</u> easure Mediation, <u>A</u> nalyze Joint Angles, <u>P</u> ick the Bone) (Planning Works <i>Philip McClure, MD, or Michael Assayag, MD</i>	
9:15-9:45	<u>Healtl</u>	h Break and Visit with Corporate Partners	Grand Ballroom Pre-function, Level 2
9:45–10:15		s of Deformity Correction: How to Approach mity Analysis and Osteotomy Planning  Shawn Standard, MD	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>Jill Flanagan</i> , <i>MD</i>	)
11:50–12:05	It Loc	oks Good, but Does It Feel Better?  Brett Crist, MD	
12:05-12:40	Boxed 1	Luncheon and Visit with Corporate Partners	Grand Ballroom Pre-function, Level 2
12:20-12:40	Disas	ter Response  Elhanan Bar-On, MD	Grand Ballroom, Level 2
12:40-12:45	Head	to Designated Afternoon Labs	
12:45-5:00	Thurs	day Afternoon Labs:	
Groups A-1 : 12:45	<b>and A-</b> 2 -2:45	2: Six-axis External Fixation 4 Lab: Malunion and Valgus Def Facilitators: James Blair, MD; Matthew Deren, MD; Conno and James McWilliam, MD Lab Assistants: Vache Hambardzumyan, MD and Sanoj Sha	r Green, MB BCh;
2:45-	3:00	Head to Next Lab	
3:00-	5:00	Six-axis External Fixation 2 Lab: Blount Disease	Grand Ballroom B, Level 2

Facilitators: Jill Flanagan, MD; Jeanne Franzone, MD; Scott Nelson, MD, and Daniel

Ruggles, DO

Lab Assistants: Marcel Abouassaly, MD; Connor Green, MB BCh; Ahmed Thabet, MD;

and Jeffrey Young, MD

### **Group B-1:**

12:45–2:45 TBA Sienna Room, Level 2

Facilitators: *TBA*Lab Assistants: *TBA* 

2:45–3:00 Head to Next Lab

3:00–5:00 Hexapod/Nail Workshop: Ankle Fusion Cobalt Ballroom 1, Level 2

Facilitators: William Terrell, MD

Lab Assistants: Alexander Cherkashin, MD; Kelsey Millonig, DPM; David Podeszwa,

MD; Mikhail Samchukov, MD; and Philip Wrotslavsky, DPM

### **Group B-2:**

12:45–2:45 Hexapod/Nail Workshop: Ankle Fusion Cobalt Ballroom 1, Level 2

Facilitators: William Terrell, MD

Lab Assistants: Alexander Cherkashin, MD; Kelsey Millonig, DPM; David Podeszwa, MD; Mikhail Samchukov, MD; Ahmed Thabet, MD; and Philip Wrotslavsky, DPM

2:45–3:00 Head to Next Lab

3:00–5:00 TBA Sienna Room, Level 2

Facilitators: *TBA*Lab Assistants: *TBA* 

### **Groups C-1 and C-2:**

12:45–1:45 Fixator-assisted Plating Lab: Distal Femoral Valgus Deformity Marine Room, Level 2 Facilitators: Elhanan Bar-On, MD; Patrick Bosch, MD; Janet Conway, MD; Brett Crist,

MD; Roberto Hernandez-Irizarry, MD; and Paul Matuszewski, MD; Lab Assistants: Talal Abalkhail, MBBS; and Marcel Abbouassaly, MD

1:45–1:55 Head to Next Lab

1:55–3:55 Six-axis External Fixation 1 Lab: Fracture with Translation,

Equinus Deformity, and Valgus Deformity

Facilitators: Mark Eidelman, MD; Jamie Ferguson, MB ChB; Aaron Huser, DO;

Christopher Iobst, MD; Christof Radler, MD; and Kevin Tetsworth, MD

Lab Assistants: James Blair, MD; Nando Ferreira, MB ChB; Mark Huang, MD;

Iara Lacerda, MD; Rishi Thakral, MD; and Indresh Venkatarayappa, MD

3:55–4:00 Head to Next Lab

4:00–5:00 Small Canal Solutions with Intramedullary Nails

Grand Ballroom A, Level 2

Cobalt Ballroom 2, Level 2

Facilitators: Michael Assayag, MD; Elhanan Bar-On, MD; and Shawn Standard, MD Lab Assistants: Jill Flanagan, MD; Jeanne Franzone, MD; Christine Goodbody, MD; Vache Hambardzumyan, MD; L. Reid Nichols, MD; Basilia Nwankwo, MD; and Jessica Rivera, MD

5:00–5:15 <u>Coffee Break</u>

 $Cobalt\ Ballroom\ Pre\text{-}function,\ Level\ 2$ 

5:15–5:20 Head to Case Presentation Sessions

### 5:20–7:00 Case Presentations

### **Pediatric Orthopedics**

### Moderators: Philip McClure, MD, and L. Reid Boyce Nichols, MD

Grand Ballroom A, Level 2

### Expert Panel: Shawn Standard, MD; Connor Green, MB BCh; and Jill Flanagan, MD

5:20–7:00 Case Calamities: Show Us What You've Got Presentations by faculty and participants

# Adult Orthopedic Deformities – Moderators: Michael Assayag, MD, and Janet Conway, MD Expert Panel: Brett Crist, MD, and Robert O'Toole, MD

5:20–7:00 Case Calamities: Show Us What You've Got Presentations by faculty and participants

### Foot and Ankle - Moderator: Noman Siddiqui, DPM

Grand Ballroom B, Level 2

### Expert Panel: Christopher Bibbo, DO; Mark Myerson, MD; and Saad Ilyas, MBBS

5:20–7:00 Case Calamities: Show Us What You've Got Presentations by faculty and participants

7:15–9:15 <u>Welcome Dinner</u> (ticket required)

Splash Pool Terrace, Level 4

# Day 2: Friday, August 23

Day 2. File			
6:15-7:00	Break	fast and Visit with Corporate Partners	Grand Ballroom Pre-function. Level 2
7:00–7:05	Anno	uncements Philip McClure, MD	Grand Ballroom, Level 2
7:05–7:15	Tibia	Review Planning Exercises  Philip McClure, MD	
7:15–7:30	Alpha	abet Soup of Limb Alignment (Sagittal Plane): PDFA, PPTA, S <i>Philip McClure, MD</i>	JLA, ADTA, and SMAA
7:30–8:00	Sagitt	al 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	Physic	cal Exam of Limb Deformities  Janet Conway, MD	
9:45-10:15	Healtl	h Break and Visit with Corporate Partners	Grand Ballroom Pre-function, Level 2
10:15-12:45	Pleas	e visit one of the two breakout sessions listed below:	
Breal	kout Se	ssion 1: Focus on Foot and Ankle Deformities	
10:15	-11:00	Preoperative Foot and Ankle Deformity Planning Noman Siddiqui, DPM	Grand Ballroom B, Level 2
11:00	-11:35	Complex Deformity and Acute Deformity Correction Princip Mark Myerson, MD	les
11:35	-12:10	Complex Deformity Planning and Gradual Correction with Il Saad Ilyas, MBBS	izarov Device
12:10	-12:45	Gradual Correction of Complex Midfoot Deformity/Hindfoot Gradual Correction  Guido LaPorta, DPM	Deformity with
Breal	kout Se	ssion 2: Focus on Femoral Deformities and Limb Length Di (Pediatric and Adult Orthopedics)	iscrepancy
10:15	-11:15	Femur: Frontal Plane Single-level Deformities (Planning Wo Scott Nelson, MD	rkshop) Grand Ballroom A, Level 2
11:15	-11:55	Femur: Frontal Plane Double-level Deformities (Planning Wo Scott Nelson, MD	orkshop)
11:55	-12:45	Femur and Knee: Sagittal Plane Femur (Planning Workshop)  Shawn Standard, MD	

Mikhail Samchukov, MD; William Terrell, MD; and Francisco Violante, Jr., MD 3:25-3:30 Head to Workshop

3:30–5:30 Internal Lengthening Nail Workshop Vermillion, Level 4

Facilitators: Philip McClure, MD, and Daniel Ruggles, DO

Lecturers: Mark Eidelman, MD; John Herzenberg, MD; Christof Radler, MD; and

Shawn Standard, MD

**Group C-2:** 

1:25–3:25 Internal Lengthening Nail Workshop

Vermillion, Level 4

Facilitators: Michael Assayag, MD, and Philip McClure, MD

Lecturers: John Herzenberg, MD; Mark Eidelman, MD; Christof Radler, MD;

Daniel Ruggles, DO; and Shawn Standard, MD

3:25–3:30 Head to Next Lab

3:30–5:30 Six-axis External Fixation 3 Lab: Blount Disease

Cobalt Ballroom 1, Level 2

Facilitators: Alexander Cherkashin, MD

Lab Assistants: David Frumberg, MD; Christopher Iobst, MD; Scott Nelson, MD; Mikhail Samchukov, MD; William Terrell, MD; and Francisco Violante, Jr., MD

6:00 Depart Hotel for Faculty Dinner (invitation only)

Four Seasons Hotel, Lobby

### Day 3: Saturday, August 24

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6:15-7:00	Breakfast and	Visit with	Corporate Partners

 $Grand\ Ballroom\ Pre\text{-}function,\ Level\ 2$ 

Please visit one or more of the three breakout sessions listed below:

**Breakout Session 1: Adult Orthopedic Specialists** 7:00–10:15

7:00-9:30 **Breakout Session 2: Foot and Ankle Specialists** 

7:00-9:30 **Breakout Session 3: Pediatric Orthopedic Specialists** 

*See details of each session below:* 

8:15-8:30

8:30-8:45

### **Breakout Session 1: Adult Orthopedic Specialists**

Vermillion, Level 4

7:00–7:15	Osseointegration: Where Are We Now? Kevin Tetsworth, MD
7:15–7:30	Deformity Correction and Total Joint Arthroplasty  Matthew Deren, MD
7:30–7:45	Periprosthetic Fractures and Nonunions  Brett Crist, MD
7:45–8:00	One State Treatment of Infected Nonunions Nando Ferreira, MB ChB
8:00-8:15	Cosmetic Stature Lengthening: Not Taboo Anymore Michael Assayag, MD

Limb Salvage in the Polytrauma Patient

Sienna Room, Level 2

8:45-10:15 Retrograde Femoral Nail Lengthening Workshop Facilitator: William Terrell, MD

James Blair, MD

Head to Workshop

### 10:15–10:30 Health Break and Visit with Corporate Partners

Grand Ballroom Pre-function, Level 2

### **Breakout Session 2: Foot and Ankle Specialists**

Grand Ballroom B, Level 2

7:00–7:20	Soft-tissue Defect Reconstruction in Foot and Ankle Deformities Christopher Bibbo, DO
7:20–7:40	Minimally Invasive Cavus Deformity Correction  Noman Siddiqui, DPM
7:40-8:00	Arthroeresis When and Why  Guido LaPorta, DPM

	8:00-8:20	International Neurogenic Feet, Stirrup Method, and Other C Saad Ilyas, MBBS	Complex Cases
	8:20–8:45	Biomechanics of Foot and Ankle <i>Anil Bhave, PT</i>	
	8:45–9:15	Charcot Deformity Correction via Minimally Invasive Surg <i>James McWilliam, MD</i>	gery
	9:15–9:30	Discussion	
Break	xout Session 3	: Pediatric Orthopedic Specialists	Grand Ballroom A, Level 2
	7:00–7:20	Acute Correction of Tibia Vara  Philip McClure, MD	
	7:20–7:35	Extramedullary Lengthening of the Femur: Tips and Tricks Shawn Standard, MD	
	7:35–7:50	Multiple Hereditary Exostosis: Treatment of the Elbow/For Aaron Huser, DO	rearm
	7:50–8:05	Mastering Surgical Hip Dislocation for Slipped Capital Fer Epiphysis (SCFE) Connor Green, MB BCh	moral
	8:05-8:20	Update on Deformity in Osteogenesis Imperfecta  Jeanne Franzone, MD	
	8:20–8:35	What to do with Poor Regenerate Bone David Frumberg, MD	
	8:35–8:50	Unlocking the Complex Congenital Knee Shawn Standard, MD	
	8:50–9:05	Deformity in X-linked Hypophosphatemic Rickets  Jill Flanagan, MD	
	9:05–9:20	Femoral Head Reduction Osteotomy  Connor Green, MB BCh	
	9:20-9:30	Discussion	
9:30–10:30	Health Break a	nd Visit with Corporate Partners	and Ballroom Pre-function, Level 2
10:30–10:40		w: Planning Exercises el Ruggles, DO	Grand Ballroom, Level 2
10:40–11:05		Management and the Latest Advances in Physical Therapy <i>Bhave, PT</i>	
11:05–11:25	Radiology Co Janet	onsiderations Conway, MD	
11:25–11:45	Surgeon Wel Chris	lness topher Iobst, MD	
11:45–11:55	Discussion		

11:55–12:05	1:55–12:05 Closing Remarks and Exhibitor Contest Drawing  Philip McClure, MD, or John Herzenberg, MD					
12:05-12:25	Lunch	<u>Luncheon</u> (grab lunch and return to the Grand Ballroom)  Grand Ballroom Pre-function, Level 2				
12:25–12:40	Limb	Reconstruction in the Low-resource Environment <i>Saad Ilyas</i> , <i>MBBS</i>				
12:40–12:45	Group	s A and B: Head to Afternoon Lab				
12:40-1:15	Group	C: Head to Afternoon Lab				
12:45–5:00	Grou	os A and B: Saturday Afternoon Labs				
Group A-1: 12:45-	-2:45	Six-axis External Fixation 3 Lab: Tibial Malunion Software Web Facilitators: Alexander Cherkashin, MD Lab Assistants: David Frumberg, MD; Christopher Iobst, MD; Mikhail Samchukov, MD; William Terrell, MD and Philip Wro	Kelsey Millonig, DPM;			
2:45–3	3:00	Head to Workshop				
3:00-	5:00	Internal Lengthening Nail Workshop Facilitator: Michael Assayag, MD Lecturers: Mark Eidelman, MD; John Herzenberg, MD; Philip Christof Radler, MD; and Daniel Ruggles, DO	Vermillion, Level 4  McClure, MD;			
Group A-2: 12:45-	-2:45	Internal Lengthening Nail Workshop Facilitator: Michael Assayag, MD Lecturers: Mark Eidelman, MD; John Herzenberg, MD; Philip Christof Radler, MD; and Daniel Ruggles, DO	Vermillion, Level 4  McClure, MD;			
2:45–3	3:00	Head to Next Lab				
3:00-	5:00	Six-axis External Fixation 3 Lab: Tibial Malunion Software Web Facilitators: <i>Alexander Cherkashin, MD</i> Lab Assistants: <i>David Frumberg, MD; Christopher Iobst, MD; Mikhail Samchukov, MD; William Terrell, MD and Philip Wro</i>	Kelsey Millonig, DPM;			

Groups B-1 and B-2	<u>2</u> :					
12:45–1:45	Six-axis Ex	xternal Fixation 5	Lab: An	kle Varu	s and Re	curvatum
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Marine Room, Level 2

Facilitators: Guido LaPorta, DPM, and Noman Siddiqui, DPM

Lab Assistants: Hummira Abawi, DPM; Samantha Bark, DPM; David Gottlieb, DPM;

Jessica Knight, DPM; and Kelsey Millonig, DPM

1:45–2:00 Head to Next Lab

2:00–5:00 Six-axis External Fixation 1 Lab: Fracture with Translation,

Cobalt Ballroom 2, Level 2

Varus Deformity, and Rotational Deformity

Facilitators: Christopher Bibbo, DO, and Noman Siddiqui, DPM

Lab Assistants: Hummira Abawi, DPM; Samantha Bark, DPM; David Gottlieb, DPM;

Matthew Greenblatt, DPM; Jessica Knight, DPM; and Jennifer Monaco, DPM

5:00 Groups A and B: Conclusion

12:40–1:15 Group C: Head to Afternoon Lab

1:15-5:30 Group C: Saturday Afternoon Labs

### **Group C-1:**

1:15–3:15 Six-axis External Fixation 2 Lab: Malunion with Procurvatum

Grand Ballroom A, Level 2

Facilitators: Jeanne Franzone, MD

Lab Assistants: Talal Abalkhail, MBBS; Marcel Abouassaly, MD;

Christine Goodbody, MD; Vache Hambardzumyan, MD; and Jessica Rivera, MD

3:15–3:30 Head to Next Lab

3:30–5:30 Superhip Procedure with Infant Locking Cannulated Blade Plates Az

Azure & Indigo Rooms, Level 2

and Extensions Osteotomies Lab

Facilitators: John Herzenberg, MD; Shawn Standard, MD; and Elhanan Bar-On, MD

Lab Assistants: Jill Flanagan, MD; Aaron Huser, DO; Basilia Nwankwo, MD;

Ahmed Thabet, MD; and Jeffrey Young, MD

### **Group C-2:**

1:15–3:15 Superhip Procedure with Infant Locking Cannulated Blade Plates Azure & Indigo Rooms, Level 2

and Extensions Osteotomies Lab

Facilitators: John Herzenberg, MD; Shawn Standard, MD; and Elhanan Bar-On, MD

Lab Assistants: Jill Flanagan, MD; Aaron Huser, DO; Basilia Nwankwo, MD;

Ahmed Thabet, MD; and Jeffrey Young, MD

3:15–3:30 Head to Next Lab

3:30–5:30 Six-axis External Fixation 2 Lab: Malunion with Procurvatum

Grand Ballroom A, Level 2

Facilitators: Jeanne Franzone, MD

Lab Assistants: Marcel Abouassaly, MD; Christine Goodbody, MD;

Vache Hambardzumyan, MD; Jessica Rivera, MD; and Ahmed Thabet, MD

5:30 Group C: Conclusion