Smith+Nephew

Minnesota Anatomic Complex Knee International Symposium (MACKIS) 2020
June 10 - 13, 2020
Bloomington, MN

Lab: JW Marriot – Mall of America
Hotel: JW Marriot - Mall of America

Theme: "It's All About The Anatomy" - Anatomic + Evidence Based Considerations for Complex Knee Injuries

Learning Objective: Develop knowledge & techniques related to the treatment of various complex knee pathologies. Attendees will hear from world-renowned experts on current trends and techniques in complex ligament reconstruction and meniscal repair. This will include focused topics on revision ACL reconstruction, MCL reconstruction, LCL (FCL) reconstruction, PLC reconstruction, PCL reconstruction, meniscal ramp and radial repairs, meniscal root repair, osteotomy and biologic solutions in the knee that may improve patient outcomes. Attendees will hear from experts about the design rationale, materials, techniques and key concepts from technologies available today that may improve patient outcomes to include ACUFEX◊ E.A.R Guide System, ACUFEX◊ TRUNAV, NOVOSTITCH◊ Pro, FASTFIX◊360, BIOSURE◊ RG + COBLATION◊

Focus Products: ACUFEX◊ E.A.R Guide System, NOVOSTITCH◊ PRO, FASTFIX◊360, BIOSURE◊ RG, SOFTSILK◊, Q FIX◊, COBLATION◊, DYONICS◊, ACUFEX◊ TRUNAV, ULTRABUTTON◊, MENISCAL ROOT Repair System, FIRSTPASS◊ MINI

Chairman: Robert F. LaPrade, MD, PhD **Co-chairman**: Lars Engebretsen, MD, PhD

US Faculty:
Elizabeth "Liza" Arendt MD – U of Minnesota
Andrew Bernhardson MD – Navy Medical Center San Diego
Jorge Chahla MD, PhD – Mid West Orthopedics at Rush University
J. Chris Coetzee MD – Twin Cities Orthopedics
Scott Faucett MD, MS – The Centers for Advanced Orthopedics – George Washington Hospital
Hollis Fritts MD – Center for Diagnostic Imaging
Andrew Geeslin MD – Ascension Medical Group
Darren Johnson MD – U of Kentucky
Patrick Kane MD – Beebe Medical Center
Michael Kiely MS SCCC – Sports Scientist – Training HAUS
Chris Larson MD – Twin Cities Orthopedics
Bruce Levy MD – Rochester Mayo Clinic
Jill Monson PT, OCS – Twin Cities Orthopedics
Jonathan Riboh MD - OrthoCarolina
Marc Safran MD – Stanford University
Seth Sherman MD – Stanford University
Corey Wulf MD – Twin Cities Orthopedics

International Faculty:
Charles Brown Jr MD – International Knee & Joint Center – Abu Dhabi
Richard von Bormann MD- Blaauwberg Hospital – South Africa
Cristián Fontboté MD – Hospital Clinico UC - Chili
Alan "Al" Getgood MD FRCS – Fowler Kennedy Sports Medicine Clinic - Canada
Eivind Inderhaug MD, PhD – AZ Monica-Campus Antwerpen - Norway
Martin Lind MD, PhD – Aarhus Universitehopsital - Denmark
Rodrigo Maestu, MD – Center for the Study and Treatment of Joint Disease Hip/Knee/Shoulder - Argentina
Tim Spalding FRCS MB BS – Warwickshire Knee & Hip Clinic – United Kingdom
Marc Strauss MD, PhD – University of Oslo - Norway
Romain Seil MD, PhD – Centre Hospitalier de Luxembourg - Luxembourg
Sachin Tapasvi MD – Oyster & Pearl Hospital – The Orthopedic Specialty Clinic - India

Wednesday, June 10th, 2020

9:00 AM - 4:00 PM	Specimen Preparation + Presentation Uploads ** All Faculty Must Arrive No Later Than 11 AM **	All Faculty

Thursday, June 11th, 2020

6:45 AM - 7:20 AM	**Registration + Breakfast**	**All Attendees**
7:20 AM	Welcome to MACKIS	Smith + Nephew Leadership
7:25 AM	Welcome + Course Objectives: Be Good Before You Can be Fast	Robert LaPrade MD, PhD
7:30 AM	In Memoriam – John Feagin MD Lecture	Lars Engebretsen MD, PhD
Session I	**What is Anatomic + Why Is It So Important?**	**Moderator**: Lars Engebretsen MD, PhD
7:35 AM	Medial + Posterolateral Knee: Key Anatomic Principles + Surgical Pearls	Robert LaPrade MD, PhD
7:45 AM	Patellofemoral Joint: Knee Anatomic Principles from the "PFJ Queen"	Elizabeth Arendt MD
7:55 AM	Live Dissection: Collaterals + Patellofemoral Joint Key Surgical Pearls ** 15 min ** Moderator: Lars Engebretsen MD, PhD	Robert LaPrade MD, PhD Elizabeth Arendt MD
8:10 AM	Meniscal Roots + PCL (and a little ACL): Key Anatomic Principles	Charles Brown MD
8:20 AM	Live Dissection: Meniscal Roots + Cruciates Surgically Relevant Anatomy ** 10 min ** Moderator: Charles Brown MD	Al Getgood MD FRCS Jorge Chahla MD, PhD
8:30 AM - 8:50 AM	**Coffee Break with Exhibitors + Meet Faculty ** 20 Min**	
Session II	**Biomechanically Relevant + Critical Clinical + Radiographic Exams**	**Moderator:** Mr. Tim Spalding MB BS FRCS
8:50 AM	Key Static Knee Stabilizers: Role of the Collaterals	Martin Lind MD, PhD
9:00 AM	Key Physical Exam + Stress X-Rays for MLI: What You Need to Do?	Andrew Geeslin MD
9:10 AM	MRI of the Complex Knee Injury: Don't Miss The Key Structures + Don't Be Fooled By Normal Intact Structures	Hollis Fritts MD
9:20 AM	Live Sx Demo: Fluoroscopy for Ideal MPFL + ACL Graft Placement ** 20 min ** Moderator: Darren Johnson MD	Charles Brown Jr. MD Elizabeth Arendt MD
9:40 AM	Roles of Meniscal Bodies + Roots on Joint Load + Cruciate Stability	Richard von Bormann MD
9:50 AM - 10:15 AM	**Coffee Break with Exhibitors + Meet Faculty ** 25 Min**	
Session III	**Collaterals: Anatomic Based Tx of Posterolateral Knee + Posteromedial Knee**	**Moderator:** Marc Safran MD
10:15 AM	MCL + MCL/POL Tears: Anatomic Tx/Outcomes	Darren Johnson MD
10:25 AM	Live Sx Demo: Anatomic MCL Reconstruction ** 15 min ** Moderator: Darren Johnson MD	Martin Lind MD, PhD Andrew Bernhardson MD
10:40 AM	Lateral (Fibular) Collateral Ligament Tears: Anatomic and Not Sling Procedures	Jorge Chahla MD, PhD

10:50 AM	Live Sx Demo: Anatomic LCL (FCL) Reconstruction ** 15 min ** Moderator: Chris Larson MD	Robert LaPrade MD, PhD Seth Sherman MD
11:05 AM	Popliteus Tendon Tears: Anatomic Tx/Outcomes	Corey Wulf MD
11:15 AM	Live Sx Demo: Open Popliteus Tendon Reconstruction Surgical Pearls ** 10 min ** Moderator: Marc Safran MD	Scott Faucett MD, MS Patrick Kane MD
11:25 AM	Techniques to Avoid Tunnel Convergence in MLI Surgery ("Use the Force")	Marc Strauss MD, PhD
11:35 AM	Live Sx Demo: Avoiding Tunnel Convergence in MLI Knee Tunnels ** 10 min ** Moderator: Marc Strauss MD, PhD	Jorge Chahla MD, PhD Cristián Fontboté MD
11:45 AM	Anatomic Posterolateral Corner Reconstruction Technique + Outcomes	Marc Safran MD
11:55 AM	Live Sx Demo: Anatomic Posterolateral Corner Reconstruction "Here's Where It All Began" ** 20 min ** Moderator: Charles Brown MD	Robert LaPrade MD, PhD Lars Engebretsen MD, PhD
12:15 PM – 1:15 PM	**Working Lunch + Case Study Panel Discussion with Faculty Presenter with Faculty Members** ** MCL / PLC / LCL / PCL • **Dr. Johnson – MCL Case** • **Dr. Safran – PLC Case** • **Dr. Lind – LCL Case** • **Dr. Getgood - PCL Case**	Dr. Johnson, Safran, Lind + Getgood
1:30 PM	Change into Scrubs ** Scrubs will be provided	
Session IV	**Bio-Skills Lab 1**	
	Bio-Skills Lab Group 1	
1:45 PM – 4:15 PM	***Lab Group 1*** ** Change Into Scrubs Prior to Lab ** Scrubs Provided ➢ **BTB ACL-R** – ACUFEX◊ PINPOINT◊, DYONICS◊, BIOSURE◊ ➢ **Soft Tissue ACL-R** – ACUFEX TRUNAV◊, ACUFEX◊ PINPOINT◊, DYONICS◊,ULTRABUTTON◊ ➢ **Meniscal Repair** - FASTFIX◊360, NOVOSTITCH◊ Pro, MENISCAL STITCHER, MENISCAL Mender ➢ **Meniscal Root Repair** - FIRSTPASS◊ MINI, NOVOSTITCH◊ PRO, MENISCAL ROOT Repair System ➢ **MCL Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **LCL Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **PLC Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R)	**Lab 1 Assigned Attendees**
4:20 PM	Adjourn Lab Session and Return to Lecture Hall	
Session V	**Complex Meniscus Issues + Osteotomies: Keys to Success**	**Moderator:** Romain Seil MD, PhD
4:40 PM	Preserve the Meniscus at All Costs: Expanded Indications for Repair in 2020	Romain Seil MD, PhD
4:50 PM	Live Sx Demo: Complex Meniscal Repair: Inside-Out + All-Inside Techniques ** 15 min ** Moderator: Martin Lind MD, PhD	Mr. Tim Spalding FRCS MB BS Seth Sherman MD
5:05 PM	Meniscal Roots + Radial Root Tears: These Need to be Repaired in 2020	Scott Faucett MD, MS
5:15 PM	Live Sx Demo: Anatomic Meniscal Root Repairs: Key Principles for Success ** 15 min ** Moderator: Scott Faucett MD, MS	Robert LaPrade MD, PhD Eivind Inderhaug MD, PhD
5:30 PM	Updates on Meniscal Transplantation in 2020: No Longer Experimental	Alan Getgood MD, FRCS
5:40 PM	Live Sx Demo: Medial Meniscus Transplantation using Bone Plugs ** 15 min ** Moderator: Alan Getgood MD, FRCS	Darren Johnson MD Mr. Tim Spalding, MB.BS, FRCS

5:55 PM	The Role of Slope on ACL + PCL Tears and Reconstruction Graft Failures	Andrew Bernhardson MD
6:05 PM	Live Sx Demo: Key Principles for Bi-Planar Osteotomy for the ACL or PCL Deficient Knee ** 10 min ** Moderator: Charles Brown MD	Romain Seil MD, PhD Alan Getgood MD, FRCS
6:15 PM	**Complex Case Study Panel: This Complication Happened to Me + This is How I Fixed It** ** Collaterals / Meniscus / Osteotomies / Multiple Ligament Knee Injuries • **Dr. Larson – MLI Case** • **Dr. Riboh – Meniscus Case** • **Dr. Maestu – Collaterals Case** • **Dr. Tapasvi – Osteotomy Case**	Drs. Larson, Maestu, Riboh + Tapasvi
6:45 PM	***Distinguished Faculty Lecture***: **Life Lessons I Have Learned in Sports Medicine** ** Introduced by Robert LaPrade MD, PhD	Charles Brown MD
6;55 PM	***Distinguished Faculty Lecture***: **Why Foot + Ankle Problems are Important for Knee** ** Introduced by Robert LaPrade MD, PhD	Chris Coetzee MD
7:05 PM	Closing Announcements	Smith+Nephew Robert LaPrade MD, PhD
7:05 PM	**Meet the Faculty Social Hour – Case Study Discussions** ** Complex Knee Case Studies at Stations – What Would You Do? ** Faculty at stations discussing complex cases in a casual environment ** Attendee participation encouraged	Drs. Geeslin, Kane, Riboh + Chahla
8:05 PM	Adjourn Day 1	

Friday, June 12th, 2020

6:45 AM - 7:25 AM	**Check In + Breakfast**	**All Attendees**
7:25 AM	Agenda Review	Robert LaPrade MD, PhD
Session VI	**PCL + Multi-Ligament Injuries: One-Stage, Anatomic-based Treatment**	**Moderator**: Bruce Levy MD
7:30 AM	Overview of Clinically Relevant PCL Anatomy & Diagnostic Techniques	Jorge Chahla MD PhD
7:40 AM	Double Bundle PCL Reconstructions are the Gold Standard	Robert LaPrade MD, PhD
7:50 AM	Live Sx Demo: Anatomic Double Bundle PCL Reconstruction: It Really is Easy! ** 20 min ** Moderator: Robert LaPrade MD, PhD	Marc Strauss MD, PhD Andrew Bernhardson MD
8:10 AM	Workup + Anatomic Treatment of Combined Grade 3 PCL-MCL Injuries	Richard von Bormann MD
8:20 AM	Live Sx Demo: Posterior Knee Approach for PCL Avulsion Fractures ** 10 min ** Moderator: Richard von Bormann MD	Martin Lind MD, PhD Sachin Tapasvi MD
8:30 AM	Workup + Anatomic Treatment of Combined Grade 3 ACL-PLC Injuries	Lars Engebretsen MD, PhD
8:40 AM	Live Sx Demo: What is the Ideal Tightening Order for a Multi-Ligament Knee Injury ** 10 min ** Moderator: Bruce Levy MD	Darren Johnson MD Marc Safran MD
8:50 AM	Identifying the Common Peroneal Nerve + How to Manage Injuries	Bruce Levy MD
9:00 AM	Pulling It All Together: Clinical + Imaging Evaluation for the MLI Injured Knee	Chris Larson MD

9:10 AM - 9:25 AM	**Break with Exhibitors + Meet with Faculty**	**All Attendees**
Session VII	**Complex Patellofemoral Issues: Gold Standard Treatment in 2020**	**Moderator:** Richard Von Bormann MD
9:25 AM	Diagnostic Workup of Recurrent Lateral Patellar Instability	Cristián Fontboté MD
9:35 AM	Diagnosis + Treatment of (Iatrogenic) Medial Patellar Instability	Andrew Geeslin MD
9:45 AM	Live Surgical Demo: MPFL Reconstruction with Quad Tendon ** 10 min ** Moderator: Rodrigo Maestu MD	Elizabeth Arendt MD Seth Sherman MD
9:55 AM	When is a Tibial Tubercle Osteotomy Indicated?	Jonathan Riboh MD
10:05 AM	Trochleoplasty for Trochlea Dysplasia: Indications + Key Surgical Pearls	Elizabeth Arendt MD
10:15 AM	Live Sx Demo: Open Trochleoplasty: Key Pearls for Success ** 15 min ** Moderator: Elizabeth Arendt MD	Marc Strauss MD, PhD Martin Lind MD, PhD
10:25 AM	Extensor Mechanism Disasters: Options for Chronic Quad + Patellar Tendon Ruptures	Elizabeth Arendt MD
10:35 AM - 10:50 AM	**Break with Exhibitors + Meet with Faculty** **** 25 Min**	**All Attendees**
Session VIII	**Revision ACL + Other Complex Knee Issues that You Need to Know in 2020**	**Moderator:** Darren Johnson MD
10:50 AM	Failed ACLR: What You Need to Know for Your Revision to Work	Charles Brown Jr. MD
11:00 AM	Lateral Extra-Articular Reconstruction Techniques: When are they Indicated?	Eivind Inderhaug MD, PhD
11:10 AM	Live Sx Demo: Lateral Extra-Articular Tenodesis – ALL Reconstruction: Key Principles ** 15 min ** Moderator: Darren Johnson MD	Al Getgood MD FRCS Andrew Geeslin MD
11:25 AM	The Grossly Unstable Knee: Should I Use An External Fixator?	Richard von Bormann MD
11:35 AM	Anatomic Treatment of Proximal Tibiofibular Joint Instability: Do We Miss These Too Often?	Seth Sherman MD
11:45 PM	Live Sx Demo: Anatomic Proximal Tibiofibular Reconstruction: Key Pearls ** 15 min ** Moderator: Rodrigo Maestu MD	Bruce Levy MD Scott Faucett MD, MS
12:00 AM	What is the New Gold Standard for Multiple Ligament Reconstruction Outcomes?	Mr. Tim Spalding, MB BS FRCS
12:10 PM	Advanced Bracing Principles for Revision ACL, PCL + Multi-Ligament Knee Surgery	Patrick Kane MD
12:20 PM	Advanced Rehabilitation Principles Following MLI Knee Surgery	Jill Monson PT, OCS
12:30 PM	Advanced Sports Testing Techniques for Complex Knee Injuries	Michael Kiely MS, SCCC
12:40 PM	Live Sx Demo: Arthroscopic Posterior Capsule Release for Extension Deficits ** 10 min ** Moderator: Mr. Tim Spalding MB BS FRCS	Eivind MD, PhD Chris Larson MD
12:55 PM	Bone Allograft vs Autograft Options for Tunnel + Osteotomy Grafting	Charles Brown Jr. MD
1:05 PM	How to Harvest & Use Biologics for Complex Knee Injuries (BMAC, Fibrin Clot, MVP, PRP)	Jorge Chahla MD, PhD
1:15 PM	***Distinguished Faculty Lecture*: The Importance of International Collaboration** ** Introduced by Romain Seil MD, PhD	Lars Engebretsen MD, PhD

1:25 PM	Closing Remarks + Program Reflections : Are You Better and Maybe a Bit Faster Dr. LaPrade After This Course?	Lars Engebretsen MD, PhD
1:30 PM	Closing Remarks from Smith+Nephew	Brandon Hentkowski
1:30 PM - 2:00 PM	**Working Lunch + Case Study Panel Discussion with Faculty-6 minutes each** ** Slope / Knee Dislocation / Revision ACL / Revision PFJ • **Dr. Getgood – Slope Lead To Failure Case** • **Dr. Von Bormann – Chronic Knee Dislocation Case** • **Dr. Maestu – 2nd Time Revision ACL-R Case** • **Dr. Wulf – Revision PFJ Case**	Drs. Getgood, Von Bormann, Maestu + Wulf
2:05 PM	Change into Scrubs ** Scrubs will be provided	

Session IX **Bio-Skills Lab 2**

2:15 PM – 4:45 PM	***Lab Group 2*** ** Change Into Scrubs Prior to Lab ➢ **BTB ACL-R** – ACUFEX DIRECTOR◊, DYONICS◊, BIOSURE◊ ➢ **Soft Tissue ACL-R** – ACUFEX TRUNAV◊, ACUFEX DIRECTOR◊, DYONICS◊,ULTRABUTTON◊ ➢ **Meniscal Repair** - FASTFIX◊360, NOVOSTITCH◊ Pro, MENISCAL STITCHER, MENISCAL Mender ➢ **Meniscal Root Repair** - FIRSTPASS◊ MINI, NOVOSTITCH◊ PRO, MENISCAL ROOT Repair System ➢ **MCL Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **LCL Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **PLC Reconstruction** – BIOSURE◊ RG, ACUFEX◊ Extra Articular Reconstruction (E.A.R)	**Lab 2 Assigned Attendees**
5:00 PM	Adjourn Day 2	
7:00 PM - 10:00 PM	**Faculty Dinner (Invitation Only)**	

Saturday, June 13th, 2020

7:15 AM - 7:45 AM	**Registration + Breakfast**	**All Attendees**
7:50 AM	Change in Scrubs ** Scrubs will be provided	

Session IV **Bio-Skills Lab 3**

8:00 AM – 11:00 AM	***Lab Group 3*** ** Change Into Scrubs Prior to Lab ➢ **BTB ACL-R** – ACUFEX DIRECTOR◊, DYONICS◊, BIOSURE◊ ➢ **Soft Tissue ACL-R** – ACUFEX TRUNAV◊, ACUFEX DIRECTOR◊, DYONICS◊,ULTRABUTTON◊ ➢ **Meniscal Repair** - FASTFIX◊360, NOVOSTITCH◊ Pro, MENISCAL STITCHER, MENISCAL Mender ➢ **Meniscal Root Repair** - FIRSTPASS◊ MINI, NOVOSTITCH◊ PRO, MENISCAL ROOT Repair System ➢ **MCL Reconstruction** – BIOSURE◊, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **LCL Reconstruction** – BIOSURE◊, ACUFEX◊ Extra Articular Reconstruction (E.A.R) ➢ **PLC Reconstruction** – BIOSURE◊, ACUFEX◊ Extra Articular Reconstruction (E.A.R)	**Lab 3Assigned Attendees**