The ACL Study Group acknowledges and appreciates the support of unrestricted educational grants from the following companies:











ACL Study Group Committees 2008 – 2010

Niklaus F. Friederich – Chair – Europe

Julian Feller – Vice Chair – Asia

John Campbell – Vice Chair - North America

John Bergfeld – Executive Director

John Feagin – Founder

Philippe Neyret – Chair, Membership Committee

Martha Murray – Chair, Scientific Committee

Markus Arnold – Chair, Program Committee





SATURDAY, FEBRUARY 20, 2010 THRU FRIDAY, FEBRUARY 26, 2010 18:00 - 20:00

Welcome / Introduction

Nik Friederich/Markus Arnold Hans Paessler/John Bergfeld

Comparative Technique Papers

Moderator: John Bergfeld

07:15 - 07:21 A Prospective Randomized Study of ACL Reconstructions Using BPB Grafts Fixed With Bioabsorbable or Metal Interference Screws. A 7.5 Year Follow-up of the Clinical Outcome and an MRI Analysis of the Bioabsorbable Screws

07:22 - 07:28

A Prospective Randomized Study Comparing Two Methods of Tibial Fixation in ACL Reconstruction: Interference Screws and Staples vs a Polyethylene Screw and Sheath

Anterograde vs Retrograde Tibial Screw Fixation - A 6 Year Follow Up Werner Siekmann (Klaus Lehrberger)

07:35 - 07:50 DISCUSSION

07:51 - 07:57

Hamstrings vs PTB Time Zero: Quality Control and CAOS Stressradiography in ACL Reconstruction

07:57 - 08:03

Level 1 Prospective Clinical Study Comparing All-Inside vs Endoscopic ACL Fixation Using Allograft Soft Tissue Pat Smith (John Feagin, John Campbell)

08:03 - 08:09

The Control of Knee Kinematics Achieved by Intra-articular ACL Reconstruction vs Intra-articular Reconstruction and Lateral Tenodesis: Intra-operative Measurement Using Surgical Navigation Philippe Colombet

08:10 - 08:25 08:30 - 09:00

09:00 - 10:00

Symposium #1: Knee Terminology Moderator: Mark Clatworthy

BREAK

DISCUSSION

Technique Papers

Making the Transition to All Inside ACL Technique James Lubowitz

10:07 - 10:13

Knot Security of Sutures Used in ACL Reconstructive Surgery

Foreign Material Free ACL Reconstruction with Hamstring 4 Years Follow Up Gernot Felmet (Manfred Bernard)

OPEN 10.21 - 10.27

10:30 - 10:50 DISCUSSION

10:50 - 10:56

How Uniform Are Our Manual Test for Diagnosis of ACL Injury? Masahiro Kurosaka

Clinical Evaluation of ACL 1

11:17 - 11:45

The Validity of Using the Clinical Examination to Quantify Surgical Outcomes Cale Jacobs (Thomas Branch)

Correlation Between Proprioception and Functional Outcome After ACL Injury: A Critical Review

Alli Gokeler (Markus Arnold)

11:11 - 11:17 How Good Are We at Clinical Examination Following ACL Reconstruction? Freddie Fu

DISCUSSION

11-45 - 13-30 LUNCH

> Clinical Evaluation of ACL 2 Moderator: Niklaus Friederich

13:30 - 13:36

Clinical Validation of a New Non-Invasive Device Used to Quantitatively Assess the Pivot Shift Test

13:37 - 13:43

Dynamometric Platforms for Evaluating the Pivot Shift Test in the ACL Deficient and Operated Knee

Vincente Sanchis-Alfonso

Pat Cawley (John Feagin)

Preventive Bracing

13:50 - 14:15 14:15 - 14:21

13:44 - 13:50

Instrumented Quantification of AP Translation of the Knee Taking Into Account Rotational Laxity

DISCUSSION

ACL Rupture: A New Instrument to Evaluate Instability and Rotation in CT Scan and MRI

Joao Espregueira (Matteo Denti)

14:29 - 14:35

What is the Role of the Posterolateral Bundle of the ACL During the Pivot Shift?

Tibial Rotation During the Lachman Test. Effect of Sequential Cutting of the ACL Bundles Pascal Christel

DISCUSSION

Andrew Amis. Pascal Christel

14:45 - 15:15

15:15 - 16:00

Symposium #2 - Clinical Evaluation Participants: Stefano Zaffagnini, Vincente Sanchis-Alfonso, Pat Cawley, Hermann Mayr, Joao Espregueira.

18:00 - 22:00

MONDAY, FEBRUARY 22

06:00 - 07:00

1st Business Meeting (Members Only)

Revision ACL Reconstruction Moderator: John Bartlett

07:00 - 07:06

New Technique for Evaluation of Tunnel Position in Failed Cases of ACL Reconstruction Philippe Nevret

07:07 - 07:13

Radiographic Assessment of the Femoral Tunnel Entrance Area Prior to the ACL Revision Surgery

Revision Surgery after Double Bundle Reconstruction Jurgen Eichhorn

Comparison of Patellofemoral Cartilage Damage at the Time of ACL Revision Surgery Between Patellar Tendon Autografts vs Other Grafts at the Primary Reconstruction

Christopher Kaeding

Roland Biederl

DISCUSSION 07:28 - 08:00

BREAK 08:00 - 08:30

Pediatric ACL Reconstruction

Skeletal Maturity Significantly Affects Functional ACL Healing Martha Murray

08:37 - 08:43

ACL Reconstruction in Children with Open Physis Robert Smigielski (Hans Paessler)

08:44 - 08:50

MRI Evaluation of a New Scaffold-Based Allogenic Chrondryle Implantation for Cartilage Repair Fredrik Almavist

DISCUSSION

Treatment Trends

09:15 - 09:30

Treatment Trends with ACL, PCL, MCL and Cartilage Problems John Campbell

09:31 - 09:37

Epidemiology of ACL Reconstruction: Trends, Complications, Subsequent Knee Surgery Seth Sherman (Mark Clatworthy)

09:38 - 09:44

08:50 - 09:15

Latest Results from the Swedish ACL Register Magnus Forssblad

09:45 - 09:51

Significance of Associated Cartilage Defects and Meniscus Injuries, Timing of Surgery and Patient Age in Primary and Revision ACL Reconstructions. Data at 1 and 2 Year Followup From the Swedish ACL Registry Karl Eriksson (Magnus Forssblad)

DISCUSSION 09:55 - 10:15

10:15 - 11:00

John Feagin Lecture - Thailand: A Golden Land Chanin Lamsam

11:00 - 16:00

Femoral Tunnel Position

Moderator: Peter Hertel

FREE TIME

16:00 - 16:06

Femoral Tunnel Position - Are We Anatomical? A Critical Analysis on 3D CT Scans Tim Spalding

16:07 - 16:13

16:14 - 16:20

The Residents Ridge as an Arthroscopic Landmark for an Anatomical Femoral Tunnel in ACL Reconstruction

The Flip Cutter Technique for Femoral Tunnel Positioning in ACL Reconstruction

Mark Clatworthy

Asheesh Bedi (Riley Williams)

16:21 - 16:27 Transtibial vs Anteromedial Portal Reaming in ACL Reconstruction: An Anatomical and Biomechanical Evaluation of Surgical Technique

DISCUSSION

16:28 - 17:00 17:00 - 18:00

> Symposium #3: Femoral Tunnel Position Participants: Tim Spalding, Konsei Shino, Mark Clatworthy, Asheesh Bedi

> > Meniscus

18:00 - 18:07

"Tie-Grip Suture"; Novel Arthroscopic Repair Procedure for Radial Tears of Meniscus

Ken Nakata (Konsei Shino)

18:08 - 18:15 Meniscal Allograft Shrinkage Thomas Carter

18:16 - 18:23

Long-Term Survival of Concurrent Meniscus Allograft Transplantation and Articular Cartilage Repair: A Prospective 11 Year Follow Up Evaluation Kevin Stone

18:24 - 18:31

Histological and MRI Findings Following Treatment of Irreparable Symptomatic Meniscal Tissue Loss with Porous Synthetic Scaffold

Rene Verdonk

TUESDAY, FEBRUARY 23 FREE DAY **WEDNESDAY, FEBRUARY 24**

06:30 - 07:30

2nd Business Meeting (Members Only) **Double Bundle ACL Reconstruction**

Moderator: James Lubowitz

07:30 - 07:36

Double Bundle ACL Reconstruction Timo Jarvela (Matiaz Veselko)

07:37 - 07:43

Retrospective Review of Single and Double Bundle ACL Reconstructions at One Institute: Clinical and Objective Outcome Assessment Albert Pearsal

07:44 - 07:50

Intra-operative Evaluation of Anteroposterior and Rotational Stabilities in ACL Reconstruction: Single Bundle vs Double **Bundle Reconstruction** Mitsuo Ochi

07:51 - 08:15 DISCUSSION

08:15 - 08:21

Knee Rotational Laxity: A Prospective Randomized Comparison of Single vs Double Bundle ACL Reconstruction

08:22 - 08:28

Biomechanical Study of a Computer Simulated Single and Double Bundle Reconstructions of the ACL

08:29 - 08:35 Biomechanical Evaluation of Anatomical Double Bundle ACL Reconstruction Using the Anatomic ACL Guide Systems: Comparison of Three Different Procedures

Eiji Kondo (Andrew Amis)

08:36 - 08:42

ACL Bundles Strain Pattern - Influence of Bundle Mismatch Mustafa Karahan (Pascal Christel)

DISCUSSION 08:45 - 09:00

09:00 - 09:30

Symposium #4: Anatomical ACL Reconstruction What We Have Learned Freddie Fu. Sebastian Kopf. Carola van Eck

The Pittsburgh Experience **BREAK** 09:30 - 09:50

Hamstring Harvest

09:50 - 09:56 Hamstring Strength Recovery Following Hamstring Tendon Harvest for an ACL Reconstruction: A Comparison Between Graft Types

09:57 - 10:03

Hamstring Harvest for ACL Reconstruction: Is There a Disadvantage? Biorn Enastrom

DISCUSSION 10.04 - 10.14

> **Traveling Scientists Session** Moderator: Martha Murray

10:15 - 10:25

Simulated ACL Injury Mechanisms: The Effects of Knee Abduction and Anterior Tibial Shear Loads on Passive Knee Restraints

10:26 - 10:36

Application of Growth Factor to Tendon Graft in Ligament Reconstruction Harukazu Tohyama

10:37 - 10:47 Travel Report

10:48 - 10:58 Lysholm Scores and Tegner Index to Assess Function and Return to Activity Outcomes Six Years After Partial

Meniscectomy vs Collagen Meniscus Implants

William Rodkey

W. Rodkey

T. Hewett/H.Tohyama

10:58 - 11:03 Travel Report 11:00 - 16:00

Miscellaneous ACL

FREE TIME

Moderator: Bent Wulff Jakobsen

16:00 - 16:06 The Effect of Medial vs Lateral Meniscectomy on the Stability

of the ACL Deficient Knee Andrew Pearle (Thomas Wickiewicz)

16:07 - 16:13

Quadriceps Muscle Function After ACL Reconstruction Roland Becker (Rainer Siebold)

16:14 - 16:20

Anterior Tibial Subluxation May Increase in Chronic ACL Deficient Knees Ryosuke Kuroda (Masahiro Kurosaka)

Training Effects of a Knee Extension Constraint Brace on Lower Extremity Motion Patterns and the Risk of a Noncontact ACL Injury Gary Losse

16:30 - 17:00 DISCUSSION

Other Ligaments

17:01 - 17:07 Open Single Stage Complete Reconstruction of Traumatic Knee Dislocation in Sports Professionals - What Can We

Expect? - A Mid to Long-Term Follow Up Study Michael Hirschmann (Peter Burkart)

Functional Outcomes Following Surgical Treatment of Posterior Cruciate Ligament Tears

Damir Hudetz (Nik Friederich)

17:15 - 17:21

Biomechanical Comparisons Between 4-Strand Anatomic and Modified Larson's Procedures for Posterolateral Corner Reconstruction

Bent Wulff Jakobsen

Matteo Denti

Chanin Lamsam

17-22 - 17-28

Injury of the Proximal Deep MCL - A Problematic Subgroup of MCL Injuries Andy Williams

DISCUSSION 17:29 - 17:49 17:50 - 18:50

Symposium #5: Multi-Ligament Injuries Participants: John Bartlett, John Bergfeld, Jurgen Eichhorn, Magnus Forssblad, Michael Hirschmann

THURSDAY, FEBRUARY 25

Basic Science Moderator: Julian Feller

08:00 - 08:06 Growth Factors Release After ACL Single Bundle Reconstruction

08:07 - 08:13 A Modified Technique for Tunnel Placement in ACL Reconstruction: From Circumference to Center

Diagnostic Value of Quantitative Contract-Enhanced MRI in Evaluating the Revascularization of the ACL Autograft Tassos Georgoulis

DISCUSSION

08:20 - 08:40 08:40 - 08:46

Preserving Joint Lubrication Delays Arthritis in the ACL-Deficient Rat Knee

Ovine Stifle Joint 08:54 - 09:00

Effect of Fatigue on Landing Biomechanics Following ACL Reconstruction Surgery Kate Webster (Julian Feller)

DISCUSSION

Early Response of Joint Tissue to the ACL Autografting in the

09:00 - 09:30 09:30 - 10:00 10:00 - 11:00

11:00 - 11:06

Symposium #6 - Basic Science Participants: Matteo Denti. Tassos Georgoulis. Braden Fleming, Cyril Frank, Kate Webster

BREAK

Long Term Follow Up

Knee Function and Prevalence of Knee Osteoarthritis After ACL Reconstruction: A Prospective Study with 10-15 Years Follow-up Kristian Aune

12 Year Follow-up on ACL Reconstruction: Long-term Outcomes of Prospectively Studies Osseous and Articular

Brian Hanypsiak (John Bergfeld)

The Arthrotic Knee - Contraindication for ACL Reconstruction? Long-term Follow-up of 19 Salvage Cases

ACL Reconstruction With Rectangular Tunnels Using Patellar Tendon Technique and Kinematic Results in a Cadaver

11:57 - 12:03

Rotational Stability Following Anatomic ACL BPB

Back to the Future: Use of Xenografts Kevin Stone

12:10 - 12:30 DISCUSSION

13:00 - 19:00 FREE TIME

FRIDAY, FEBRUARY 26

Loop: A Case Control Study

08:00 - 08:06

Reconstruction: A Prospective Study Rainer Siebold

08:07 - 08:13 Reconstruction Using EndoButton or EndoButton Continuous

08:14 - 08:20 Minimal Bone Tunnel Enlargement - The Fate of Tibial Bone

08:28 - 08:34

08:21 - 08:27

Steve Houseworth

Widening After ACL Reconstruction with Hamstring: A Pilot

Osteotomies, Patellofemoral and Cartilage 08:35 - 09:22

Valgus High Tibial Osteotomies Albert van Kampen 09:23 - 09:30

10:00 - 11:30

Moderator: John Campbell

ADJOURN

Manfred Remard

11:14 - 11:20

11:20 - 11:50 DISCUSSION

11:50 - 11:56

Study Christian Hoser

Reconstruction

12:04 - 12:10

19:00 - 23:00 **GALA FAREWELL BANQUET**

Differentiation Between Intra and Post-operative Bone Tunnel Widening and Communication in Double Bundle ACL

Femoral and Bone Tunnel Widening After ACL

Martin Lind

Tunnel Walls and Bone Grafts in BTB Hardware-free Press-

Technical Hints for Performing Allograft Achilles Tendon ACL Reconstruction

fit ACL Reconstructions: A Prospective CT Study

The Effect of Autologous Platelet Factors on Femoral Tunnel

Study with MRI 20 Patients Dimitrios Mastokalos

The Precision of Intra-operative Fluoroscopy in Open-wedge

Comparison of Functional Results by Koos After Opening Wedge Osteotomies Above and Below the Knee - A Prospective Study

DISCUSSION 09:30 - 10:00

> Symposium #7 Difficult Cases: Members present problematic cases. (n=max.6)

The items in *italic* are invited quests.

Arne Fkeland