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















Sunday, January 26, 2014 - Thursday, January 30, 2014



SUNDAY, JANUARY 26, 2014

12:00 - 13:00 REGISTRATION

13:00 - 13:30 Welcome John Campbell / Mary Lloyd Ireland / Willem van der Merwe / Charles Brown

GENERAL SESSION 1
MODERATOR: John Bergfeld

13:31 - 13:51 Importance of Outcomes

Kurt Spindler

13:52 - 13:57 Katja Tecklenberg (Guest of Peter Burkart)
(1) Prospective Case Controlled Evaluation of Immediate
ACL Reconstruction Within 48 hours After Injury vs. Delayed ACL
Reconstruction.

13:58 - 14:03 Björn Barenius (Guest of Bjorn Engstrom)
(2) Differences in Early Results Between Acute and Delayed ACL
Reconstruction: A Randomized Controlled Trial

14:04 - 14:09

Justin Roe
(3)Posterior Tibial Slope and Further ACL Injury in the ACL

14:10 - 14:15 Peter Faunoe
(4) ACL Reconstruction in Children. Results from the Danish Registry for Knee Ligament Reconstruction

14:16 - 14:21 Christian Hoser
(5) Results of Self-Reported Outcome Measures After ACL
Reconstruction in Patients Over 40, 50 and 60 Years – Age and
Gender Differences

14:22 - 14:27 Hermann Mayr
(6) Brace or No-Brace After ACL Graft? Four-Year Results of a
Prospective Clinical Trial

14:32 - 15:12 DISCUSSION

Reconstructed Patient

15:13 - 15:23 Greg Myer(Traveling Scientist)
Traveling Scientist Report (2012-2014)

GENERAL SESSION 2
MODERATOR: Mark Clatworthy

15:24 - 15:29 Rick Wright (Guest of Thomas Klootwyk) (7) Graft Choice Propensity from the Multi-Center ACL Revision Study (MARS) Group

15:30 - 15:35 Kevin D. Plancher (Guest of John Bergfeld)
(8) Autograft/Allograft, Single-Bundle, Transtibial ACLR at an Average
7-year Follow-up Yields Successful Radiographic Outcomes with
Return to High Level Sports

15:36 - 15:41 Coen Wijdicks (Guest of John Feagin)
(9) Biomechanical Comparison of Anatomic Single- and Double-Bundle
Anterior Cruciate Ligament Reconstructions: An In-Vitro Study

15:42 - 15:47 Martin Lind
(10) A Comparison of Patella Tendon vs. Quadriceps Tendon for
Anterior Cruciate Ligament Reconstruction - A Prospective and
Randomized Study

15:48 - 15:53 Kurt Spindler
(11) Are Articular Cartilage Lesions and Meniscus Tears Predictive
of IKDC, KOOS, and Marx Activity Level Outcomes After ACL
Reconstruction? A 6-Year MOON Cohort Study

15:54 - 15:59 Timothy Whitehead
(12) Double Bundle Versus Single Bundle Anterior Cruciate Ligament
Reconstruction – Outcomes and Failure Rate Analysis in 358 Patients
with 34 to 61 Month Follow Up

16:00 - 16:05 Paul Marks
(13) Predictors of Outcome Following Anterior Cruciate Ligament
Reconstruction – A Prospective Cohort Study

16:06 - 16:11 Tim Spalding (14) Anatomic ACL Reconstruction - More Than Just Tunnel Position

16:22 - 16:42 DISCUSSION

ADJOURN

18:00 - 20:00 RECEPTION (heavy hors d'oeuvres)

MONDAY, JANUARY 27, 2014

BREAKFAST - PAVILION ROOM

SESSION: BIOLOGIC FACTORS IN ACL SURGERY
MODERATOR: Martha Murray

7:00 - 7:19 Martha Murray
(15) KEYNOTE: The Biologic Approach to ACL Surgery

7:20 - 7:25 Gregory DiFelice (Guest of Mark Sherman)
(16) Primary ACL Repair Revisited. Early Clinical Experience using
21st Century Arthroscopic Primary Repair Technique.

7:26 - 7:31 Urszula Zdanowicz (Guest of Robert Śmigielski) (17) Structure Changes Within ACL Graft During the First Year After Reconstruction.

7:32 - 7:37 Nobuo Adachi
(18) Morphological Evaluation of ACL Remnants Using 3-Dimensional
Computed Tomography

7:38 - 7:43 Ryosuke Kuroda (19) Age-Related Difference in Anterior Cruciate Ligament Derived Cells

7:44 - 7:49 Jürgen Eichhorn (20) Biologic Augmentation of a Partial Ruptured ACL

7:50 - 7:55

James Robinson
(21) Isolated AM or PL Bundle Augmentation May Improve Sports
Function Scores and Restore Functional Knee Propioception: Better
than Conventional ACL Reconstruction

7:56 - 8:01 Martha Murray
(22) Successful Repopulation of ACL Graft Tissue with Cells Predictive
of Graft Strength at One Year after Surgery in a Porcine Model

8:02 - 8:12 Braden Fleming
(23) Increased Platelet Concentration does not Improve Functional
Graft Healing in Bio-Enhanced ACL Reconstruction

8:13 - 8:43 DISCUSSION

SESSION: MENISCUS MODERATOR: John Campbell

8:44 - 8:49 Philippe Neyret
(24) Assessment of the Medial Meniscus in ACL Deficient Knee
According to the Arthroscopic Approach

8:50 - 8:55

Mark Clatworthy
(25) A Medial Femoral Chondral Crevice Sign for an Unstable Posterior
Longitudinal Medial Meniscal Tear in the ACL Deficient Knee

8:56 - 9:01 Karl Eriksson
(26) Results of Meniscus Repair: A Retrospective Analysis of 320
Consecutive Patients over a 12 Year Period

9:02 - 9:09 Christophe Hulet (Guest of Philippe Colombet)
(27) Long Term Results of 58 ACL Arthroscopic Reconstructions
Associated with Medial Meniscal Sutures

9:10 - 9:40 **DISCUSSION**

10:00 BUSINESS MEETING 1

12:00 LUNCH

13:00 MODERATORS: Scott Dye and Matteo Denti

SYMPOSIUM: THE EARLY DEVELOPMENT OFOSTEOARTHRITIS FOLLOWING ACLR: CAN IT BE PREVENTED?

13:00 - 13:10 Scott Dye
(28) Overview and Significance of the PTOA Problem

13:11 - 13:21 Braden Fleming (29) The Etiology and Pathophysiology of Early OA Following ACLR

13:22 - 13:32 Carolyn Hettrich (Invited Scientist Program)
(30) Genetic Risk Factors for the Development of PTOA after ACLR

13:33 - 13:43 José F. Huylebroek (31) Is Knee Instability a Risk Factor for Osteoarthritis in Adolescent and Young Athletes?

13:44 - 13:54 Constance Chu (Guest of Paul Marks) (32) How to Determine that the ACLR Knee is "At Risk" For Early OA: Clinical/Laboratory/Imaging Indicators

13:55 - 14:05Matteo Denti
(33) The Treatment of Early OA in the ACLR Knee

14:06 - 14:16 Scott Dye
(33a)How to Prevent Early OA Following ACLR from a Tissue
Homeostasis Perspective

14:17 - 14:47 **DISCUSSION**

Monday continued

Introduction to Feagin Lecture - Willem van der Merwe

14:48 - 15:28 FEAGIN LECTURE Francois Pienaar
Captain South Africa World Cup Champion Team 1995

15:29 - 15:49 QUESTIONS / DISCUSSION

SESSION: OSTEOARTHRITIS MODERATOR: Julian Feller

15:50 - 15:55 Constance Chu (Guest of Paul Marks) (34) Novel Quantitative MRI (UTE---T2*) Shows Reversible Cartilage and Meniscus Damage After Anatomic ACL Reconstruction

15:56 - 16:01 Thomas Wickiewicz
(35) ACL Reconstruction Offsets the Center of Contact Stress and Increases Tibiofemoral Contact Force

16:02 - 16:12 Thomas Andriacchi (Traveling Scientist 2014-2016)
(36) Patterns of Locomotion Give us Unique Insights into ACL
Function and Reconstruction

16:13 - 16:28 DISCUSSION

16:29 - 16:34 Freddie Fu
(37) Quantitative In Situ Analysis of the Human Anterior Cruciate
Ligament and Midsubstance Cross Sectional Area

16:35 - 16:40 Peter Verdonk (Guest of Philippe Neyret) (38) Advanced 3D CT Imaging of the Reconstructed ACL Using 3 Different Surgical Techniques

16:41 - 16:46 Ponky Firer
(39) Should we be Looking at Isometry of our ACL Grafts

16:47 - 16:52 John Campbell
(40) Treatment Trends with Anterior Cruciate Ligament, Posterior
Cruciate Ligament, Medial Collateral Ligament, and Cartilage
Problems

16:53 - 16:58 Hans Staeubli
(41) Multiplanar Posteromedial Opening Wedge Osteotomy of the
Proximal Tibia: A Finite Element Analysis and Early Results Using K
Wire Monitoring

16:59 - 17:09 Anders Valentin (Guest of Magnus Forssblad)

Magnus Forssblad

(42) Outcome of ACL Reconstruction in Patients Over the Age of 40; (43) Results from the Swedish ACL Register

17:10 - 17:40 DISCUSSION

ADJOURN

EVENING FREE

TUESDAY, JANUARY 28, 2014

6:00 BREAKEAST - PAVILLION ROOM

SYMPOSIUM: ROTATIONAL INSTABILITY
MODERATOR: Andrew Amis

7:00 - 7:10 Andrew Amis / Magnus Forssblad
(43) Anatomy and Biomechanics of the Anterolateral Ligament

7:11 - 7:16 Alan Getgood (44) Anterolateral Capsule Anatomy

7:17 - 7:22 Jon Browne

(45) Rotational Instability Related to Lateral Meniscus Damage
7:23 - 7:28 Rhidian Thomas

(46) Anteromedial Rotator Laxity and MRI of MCL Injury in ACL Cases
7:29 - 7:34 Philippe Neyret

(47) Postero-Medial Meniscus Lesions in ACL Injury
 7:35 - 7:40 Joao Espregueira-Mendes
 (48) Dynamic Knee Laxity by MRI

7:41 - 7:46 Volker Musahl (49) Quantification of a Standardized Pivot-Shift

7:47 - 7:52 (50) Rotational Laxity from a Robotic Device

7:53 - 7:58 Stefano Zaffagnini (51) Anatomic vs. Non-Anatomic Double-Bundle ACL Reconstructions

7:59 - 8:04 Ryosuke Kuroda (52) Electromagnetic Tracking of the Pivot Shift

8:05 - 8:35 **DISCUSSION**

Tuesday continued

ROTATIONAL INSTABILITY
MODERATOR: Philippe Neyret

8:36 - 8:41 Rainer Siebold
(53) Flat ACL Ligament Arising from a Crescent Shaped Part of the
Tibial Bony Insertion. No Posterolateral Fibers Present

8:42 - 8:47 Moises Cohen (54) The "Crescent Moon" Concept of the ACL Tibial Footprint: An Anatomical Study

8:48 - 9:00 DISCUSSION

9:01 - 9:05 Robert Śmigielski (55) New Look on the Tibial ACL Insertion Anatomy

9:06 - 9:11 Danyal Nawabi (Guest of Andrew Williams) (56) ACL Fibers Inserting on the 'Ridge' Carry the Greatest Loads – Are Modern Anatomic Femoral Tunnel Positions Too Low?

9:12 - 9:17 Yasuyuki Kawaguchi (Guest of Andrew Amis)
(57) The Most Important Load-Bearing Fibers in the Femoral
Attachment of the ACL for Resisting Tibial Anterior Drawer Force and
Internal-External Rotation

9:18 - 9:48 **DISCUSSION**

MODERATOR: Freddie Fu

10:00 -10:05 Andrew Williams
(58) The Impact of Changing ACL Graft Choice and Tunnel Position
on Results

10:06 - 10:11 Amelie Stoehr (Guest of Hermann Mayr)
(59) Single-Bundle Versus Double-Bundle ACL Reconstruction: A
Comparative 2 Year Follow-Up in Terms of Rotational Stability

10:12 - 10:17 Mark Steiner (Guest of Charles Brown)
(60) A Practical Method for Placing Anatomic Femoral Tunnels in
Anterior Cruciate Ligament Reconstruction

10:18 - 10:23 Carl Imhauser (Guest of Thomas Wickiewicz)
(61) ACL Fibers Demonstrate High Levels of Load-Sharing in a
Partial Injury Model

10:24 - 10:29 Yuichi Hoshino (Guest of Ryosuke Kuroda)
(62) Asymptomatic Trivial Rotational Laxity Could Induce Large Pivot
Shift After The Anterior Cruciate Ligament Injury

10:30 - 10:35 Elvire Servien (Guest of Rene Verdonk)
(63) Femoral Tunnel Analysis After ACL Reconstruction

10:36 - 10:46 Eiji Kondo (64) Biomechanical Analysis of the Knee with Isolated Anteromedial or Posterolateral Bundle Deficient Anterior Cruciate Ligament

10:47 - 11:07 Werner Mueller
(65) The Knee: My Way to Try to Understand the Complex Function
of this Joint

11:08 - 11:38 **DISCUSSION**

AD.JOURN

13:00 - 18:30 AFTERNOON - OPTIONAL EVENT
South African Vineyard, Wine Producing Country Tour
(includes transportation, dinner - limit 120 people)

Guest Speaker: Dr. Mji "Struggle in South Africa and Leadership"
Must register and pay fee by Monday, January 27th, noon (12:00p)

WEDNESDAY, JANUARY 29, 2014

No Scheduled Academic Events Golf - Willem van der Merwe Tours on your own

THURSDAY, JANUARY 30, 2014

6.00

Tom Branch

BREAKFAST -PAVILLION ROOM

GENERAL SESSION 3 MODERATOR - Moises Cohen

7:00 - 7:05 Peter Angele (Guest of Heinz-Jürgen Eichhorn)
(66) Infection After Arthroscopically-Assisted ACL Reconstruction Presentation of Own Cohort and FIFA-Study Cohort

7:06 - 7:11 David Johnson (67) Spatial Cognitive Skills in ACL Study Group Members

7:12 - 7:17 Pieter Erasmus (Guest of Willem van der Merwe) (68) Quadriceps Tendon ACL Reconstruction in Rugby Players

7:18 - 7:23 Michael Posthumus (Guest of Willem van der Merwe) (69) Genetic Risk Factors for Anterior Cruciate Ligament Ruptures Thursday continued

7:24 - 7:29 Masahiro Kurosaka
(70) Analysis of Tibial Anterior Subluxation to Femur at Maximum
Extension Before and After ACL Reconstruction

7:30 - 7:35 Patrick Smith
(71) Suspensory vs. Interference Screw Fixation for Arthroscopic ACL
Reconstruction in a Novel Canine Model

7:36 - 8:06 DISCUSSION

SYMPOSIUM: RETURN TO PLAY & FUNCTIONAL
MEASUREMENTS AFTER ACL RECONSTRUCTION:
EVIDENCE AND CASE
MODERATOR: Mary Lloyd Ireland

8:07 - 8:17 Mary Lloyd Ireland (72) Six month Post ACL Strength, Step Down, Gait Analysis: How Are We Doing?

8:18- 8:28 Willem van der Merwe (73) Objective Measurements for Screening and Post Operative Knee Patients: The Grucox Experience

8:29 - 8:39 Tim Hewett
(74) Biomechanical Rationale for Targeting ACL Intervention

8:40 - 8:50 Gregory Myer
(75) Identification of Risk Factors for Recurrent Injury Novel
Technique

8:51 - 9:01 Christopher Kaeding (76) Consideration in the Timing of Return to Play

9:02 - 9:32 PANEL - What are the Best Tests For Clinician
To Use For Determining Return to Play

9:34 - 10:04 **DISCUSSION**

Techniques

10:05 BUSINESS MEETING 2
12:00 LUNCH

REHABILITATION
MODERATOR: Joao Espregueira-Mendes

13:00 - 13:10 Kate Webster (Traveling Scientist 2014-2016)
(78) Returning to Sport After ACL Reconstruction Surgery:
Meta-Analysis Update and Psychological Influences

13:11 - 13:21 James Irrgang (Invited Scientist Program)
(79) Return to Pre-Injury Level of Competitive Sports after Anterior
Cruciate Ligament Reconstruction (ACLR)

13:22 - 13:27 Hayden Morris
(80) The Melbourne Return To Sport Score

13:28 - 13:33

Julian Feller
(81) Return to Sport Outcomes after Revision Anterior Cruciate
Ligament Reconstruction

13:34 - 13:39 Arne Ekeland (82) ACL-Graft Rupture in Contact vs. Non-Contact Sports

13:40 - 14:15 DISCUSSION

MODERATOR: Willem van der Merwe

14:16 - 14:26 Anne Benjaminse (Invited Scientist Program)
(83) The Effect of Instruction on Reducing Peak Ground Reaction
Forces in Recreational Athletes

14:27 - 14:32 Seth Sherman
(84) Validation of the Microsoft Kinect as a Portable and Inexpensive
Screening Tool for Identifying ACL Injury Risk

14:33 - 14:38 Alli Gokeler
(85) Effect of Verbal Feedback Instructions on Landing Mechanics in Patients after ACL Reconstruction.

14:39 - 15:09 DISCUSSION

15:10 - 15:45 Tim Noakes
Distinguished Guest Lecture - "Sports Medicine in South Africa"

15:46 - 16:06 Charles Brown - Results of Tunnel Placement Survey

ADJOURN
18:00-19:00 COCKTAILS

19:00-22:00 BANQUET

POSTER PRESENTATIONS

A minimum 2 year retrospective review of 110 patients with LARS 133 / hamstrings "hybrid" double bundle ACL reconstruction

Annear, Peter

Evaluation of intra-articular ACL Length with computer assisted navigation. Can it be correlated to simple anthropomorphic parameters

Colombet, Philippe

Injury pattern, clinical characteristics, kiinematics and subjective outcomes of a large cohort of multiligament knee injuries **Coolican, Myles**

along its length: A cadaveric study **Georgoulis, Anastasios**Effect of Verbal Feedback instructions on landing mechanics in

The shape and the thickness of the anterior cruciate ligament

Gokeler, Alli

Trunk and hip neuromuscular control following an anterior

cruciate ligament tear Ireland, Mary Lloyd

natients after ACL reconstruction

The surgical cost of ACL reconstruction among varied geographic areas

Klootwyk, Thomas

Force distribution inside a BTB graft in the anatomic rectangular tunnel ACL reconstruction

Mae. Tatsuo

"Hybrid" allo/auto grafts for ACL reconstruction Magnussen, Robert

Simulated anterior cruciate ligament reconstruction using preoperative 3-dimensional computer tomography **Ochi, Mitsuo**

The effect of complete ACL rupture on the tibiofemoral cartilage, assess with T2-weighted MRI after ACL reconstruction Parker, David

Anterior subluxation of the lateral tibia in the setting of ACL injury: a comparative analysis of deficient states

Pearle. Andrew

Study of coating with biomimetic mineralization to biocompatibility of PET ligament material in Vitro and graft to bone healing In Vivo Shivi. Chen

Multi-planar posteromedial opening wedge osteotomy of the proximal tibia: a finite element analysis and early results using K wire monitoring

Staeuble. Hans

The effect of altered tibial torsion on strain within the ACL Teitre. Robert

Patellofemoral arthrodesis as pain relief in chronic extreme patella alta Van Kampen, Albert

Clinical results of polyurethane scaffold in lateral meniscus segmental defects

Verdonk. Rene

