ACL STUDY GROUP EXECUTIVE BOARD

2016 - 2018

MARK CLATWORTHY - PRESIDENT - AUSTRAL-ASIA CHRIS KAEDING - VICE PRESIDENT - NORTH/SOUTH AMERICA

TIM SPALDING - VICE PRESIDENT - EUROPE

MOISES COHEN - MEMBER-AT-LARGE

RYOSUKE KURODA – MEMBER-AT-LARGE

PHILIPPE NEYRET – PAST PRESIDENT

JOHN FEAGIN – FOUNDER

JOHN BERGFELD - EXECUTIVE DIRECTOR

ACL STUDY GROUP COMMITTEES

Magnus Forssblad - Chair, Membership Robert Magnussen – Chair, Scientific Willem vdMerwe - Chair, Program

The ACL Study Group acknowledges and appreciates the support from the following companies:





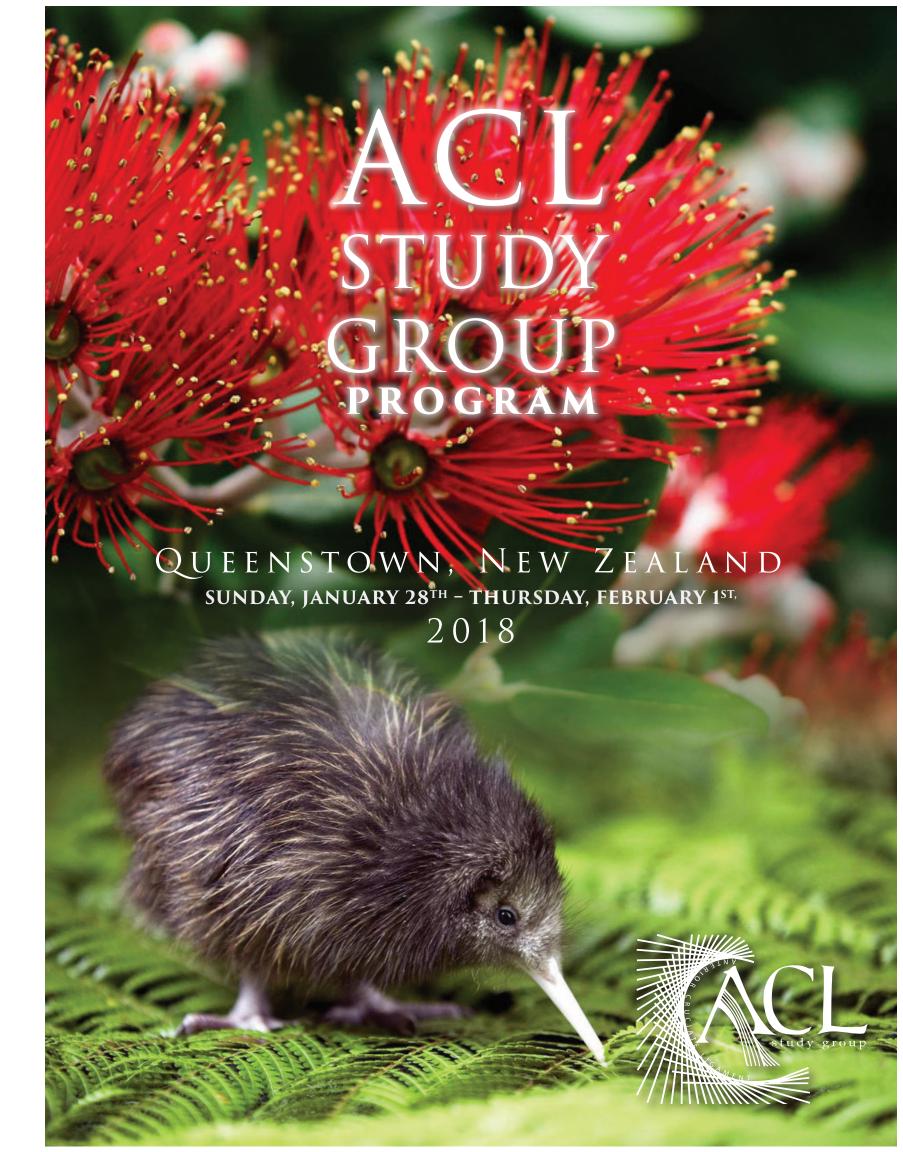












MONDAY, JANUARY 29, 2018

BREAKFAST

7:00 - 7:15 Welcome/Introduction

Mark Clatworthy, Willem vd Merwe, John Bergfeld

PRESIDENTIAL GUEST LECTURE Chris Kaeding 7:16 - 7:31

Defense of ACL Surgery

DISCUSSION 7:32 - 7:47

> **MODERATOR - John Bergfeld** SYMPOSIUM: LONG-TERM OUTCOME

7:48 - 8:03 Don Shelhourne (1) Results of Anterior Cruciate Ligament Reconstruction with Patellar Tendon AutoGraft: Objective Factors Associated with the Development of Osteoarthritis at 20 to 33 Years After Surgery

Suzanne Werner

(2) BPTB ACL Reconstruction: A 31 Year Follow Up

DISCUSSION 8:12 - 8:32 8:35 - 8:42

Rick Wright (3) Predictors of Patient Reported Outcomes at Two Years Following Revision ACL Reconstruction in the MARS Cohort

Robert Magnussen (4) Risk Factors and Predictors of Significant Chondral Surface Change from Primary to Revision ACL Reconstruction: A MOON and MARS Cohort Study

Constance Chu (5) Do Two-thirds of ACL Reconstructed Patients Show Signs of Joint Degeneration at One and Two Year Follow-up?

DISCUSSION 8:59 - 9:19 9-20 - 9-50 RRFAK

> **MODERATOR - Chris Keading** COMPLICATIONS

David Flanigan (Guest of Chris Kaeding) 9.51 - 9.56 (6) Bacterial Biofilms Are Associated With Tunnel Widening in Failed ACL Reconstructions

Hermann Mavr (7) 18-Year Results of Arthroscopic Arthrolysis for Arthrofibrosis After Anterior Cruciate Ligament Reconstruction

10:03 - 10:08 Joan Monllau (8) Contamination Occurs During ACL Graft Harvesting and Manipulation But it Can Be Easily Eradicated

Klaus Lehrberge (9) Advances in the Management of Knee Joint Infections

10:15 - 10:35 DISCUSSION **MODERATOR - Shiyi Chen**

ALLOGRAFT

Simon Young (Guest of Mark Clatworthy) 10:36 - 10:41 (10) Mechanorecentor Reinnervation of AutoGrafts Versus AlloGrafts After Anterior Cruciate Ligament Reconstruction

Kevin Plancher (11) AlloGraft Bone-Patellar Tendon-Bone (BPTB) ACLR in Patients <30 Years- Part I

10:48 - 10:58 DISCUSSION

Martha Murray 10:59 - 11:09 (12) Bridge Enhanced ACL (BEAR) - Where Are We Now?

11:10 - 11:30 DISCUSSION 11:30 - 12:30 LUNCH

> **MODERATOR - Tom Branch** OUTCOME TECHNIQUE

12:31 - 12:36 Peter Annear (13) Remnant Sparing ACLR Patients Have Later ACL Re-injury Times But More Re-operations and Clinic Visits: A 10 Year Follow-up Randomized Controlled Study

12:37 - 12:42 Philippe Colombet (14) Clinical and Functional Outcome of ACL Reconstruction With 4 Strands Semitendinosus Graft and Adjustable Suspensory Fixations: Cohort Study Including 104 Patients at a Minimum Follow-up of 2 Years

Tatsuo Mae (15) Graft Tensioning Technique in ACL Reconstruction: Manual vs Tensioning Boot Technique

12:49 - 12:54 Konsei Shino

(16) Tunnel Location and Clinical Outcomes After the Anatomic Rectangular Tunnel ACL Reconstruction With an Autogenous

12:55 - 13:00 **Roland Becker** (17) Impact of Screw Diameter & Length on Fixation Strength in ACLR

13:01 - 13:06 (18) Arthroscopic-Aided ACLR with Autogenous Interwoven

Semitendinosus & Gracilis Tendon Graft

13:07 - 13:27 DISCUSSION

> MODERATOR - Andrew Pearle OUTCOME GRAFT

Patrick Djian (Guest of Philippe Colombet) 13:28 - 13:35 (19) Complications After ACL Reconstruction Between BPTB and Hamstring Graft : A Prospective Study

13:36 - 13:43 (20) Quadriceps Tendon Grafts Reduce Donor Site Morbidity for Anterior Cruciate Ligament Reconstruction Compared to Hamstring

Graft: A Prospective and Randomized Study Julian Feller

(21) Quadriceps Tendon Versus Hamstring Tendon for Anterior Cruciate Ligament Reconstruction: Preliminary 6 Month Data From a Case-matched Series

13-52 - 13-59 Christian Hoser (22) Comparison Between Quadriceps and Hamstring Tendon Auto-Grafts in Primary Anterior Cruciate Ligament Reconstruction: A 2 Year Patient-Reported Outcome Study

DISCUSSION 14.00 - 14.22

14:23 - 14:33 BREAK

MODERATOR - Peter Annear

ACL SYNTHETIC MATERIAL IN ACL RECONSTRUCTION

Patrick Smith (23) The Effect of Independent Internal Bracing of Weak and Full Strength Grafts for All Inside Anterior Cruciate Ligament Reconstruction

(24) Outcomes Following Primary Repair of the Anterior Cruciate Ligament Combined With Internal Brace and Microfractures

(25) The Long-term Failure Analysis of Anterior Cruciate Ligament Reconstruction using Synthetic Ligament A Multicenter Study by China Artificial Ligament Study Group (CALSG)

14:58 - 15:13 DISCUSSION

MODERATOR - Christian Hoser PERSISTENT I AXITY

Takeshi Muneta (26) Risk Factors for Residual Pivot Shift After ACL Reconstruction: Data From the TMDU MAKS Study

15:20 - 15:25 Anders Stalman (Guest of Magnus Forssblad) (27) Risk Factors for Persistent Laxity After Primary ACL Reconstruction

15:26 - 15:31 David Chao

(28) Blood Flow Modification Therapy in Early ACL Rehabilitation

15:32 - 15:42 DISCUSSION

15:43 - 16:08 ACL Synthetic Material in **ACL Reconstruction Debate**

16:09 - 17:09 FIRST BUSINESS MEETING - Mark Clatworthy

TUESDAY, JANUARY 30, 2018

BREAKFAST 6:00 AM

> MODERATOR - Ryosuke Kuroda DOUBLE BUNDLE

(29) Intraoperative Kinematic Evaluation of Double-Bundle Anterior Cruciate Ligament Reconstruction Using a Navigation System

James Irrgang (Guest of Dr. Willem vdMerwe) (30) Comparison of Clinical and Kinematic Outcomes Following Anatomic Single Versus Double-Bundle ACL Reconstruction: A Randomized Clinical Trial

Timo Jarvela (31) Tunnel and Screw Findings 5 Years After Double-Bundle ACL Reconstruction

(32) 5 Year Follow-up Results After Single-Bundle versus Double-Bundle Anterior Cruciate Ligament Reconstruction

(33) Effects of Initial Graft Tension on cCinical Outcome After

Anatomic Double-Bundle Anterior Cruciate Ligament Reconstruction: Comparison of Two Graft Tension Protocols

> MODERATOR - Julian Feller BIOMECHANICS

7:51 - 7:58 **Andrew Amis** (34) The Load-Transmitting Role of Fibers in the Tibial Attachment of the ACL in Resisting Tibial Displacements, Related to Fiber Morphology

David McAllister (35) Femoral Contact Forces in the ACL Deficient Knee: A Robotic Study

Thomas Wickiewicz (36) Engagement of Secondary Stabilizers Relative to the ACLProvide a Framework for Explaining Contralateral Differences in Anterior Laxity

DISCUSSION 8:15-8:30

7:30-7:50

8:31 - 8:38 Lou DeFrate (37) Comparison of Male and Female Knee Kinematics at the Time of Non-Contact Anterior Cruciate Ligament Injury Determined via Analysis of Bone Bruises

Josh Koh (38) Valgus Loading Causes Coupled Internal Rotation and Significant ncreases in ACL Strain

Carl Imhauser (Traveling Scientist) (39) Distinct Patterns of ACL Engagement Explain Variations in Anterior Knee Laxity

8:55 - 9:10 DISCUSSION

MODERATOR - Constance Chu ARTICULAR CARTILAGE

9:11-9:18 Dean Taylor (40) Evaluation of Exercise-Induced Patellofemoral Joint Articular Cartilage Strain after Anterior Cruciate Ligament Injury

(41) Safety and Performance of an Acellular Hydrogel Implant for Cartilage Repair: 24 Month Follow-Up of a Prospective Multicenter Study

Atsuo Nakamae (Guest of Nubuo Adachi) (42) Risk Factors for Progression of Articular Cartilage Damage After Anatomic Anterior Cruciate Ligament Reconstruction: A Second-Look Arthroscopic Evaluation

9:35 - 9:55 DISCUSSION 9:56 - 10:26 BREAK

> **MODERATOR - Philippe Neyret** ANTERIOR LATERAL LIGAMENT

10:27 - 10:34 Daisuke Araki (Guest of Rvosuke Kuroda) (43) Biomechanical Function on Anterolateral Structure of Knee -Quantitative Evaluation Using the Electromagnetic Measurement System

Brian Devitt (Guest of Julian Feller) (44) A Biomechanical Assessment of a Distally-based Lateral Extraarticular Tenodesis in the Treatment of Anterolateral Rotational Laxity

Fivind Inderhaug 10.43 - 10.50 (45) The Effect of Anterolateral Complex Sectioning and a MacIntosh Tenodesis on Patellofemoral Joint Contact Pressures and Kinematics

Danyal Nawabi (Guest of Andrew Pearle) (46) Biomechanical Evaluation of Lateral Extra-Articular surgical Procedures: A Computational Study

(47) The ALL Engages Outside of the Normal Limits of Anterior Translation after ACL-sectioning in Response to Multiplanar Torques

11:07 - 11:27 DISCUSSION

MODERATOR - Andy Williams ANTERIOR LATERAL LIGAMENT OUTCOME

Peter Verdonk (48) Reduced Revision Rate in ACL Reconstruction With Antwerp Monoloop Lateral Extra-Articular Tenodesis

11:36 - 11:43 Bertrand Sonnerv-Cottet (Guest of Christian Guier)

(49) Anterolateral Ligament Reconstruction is Associated With Significantly Reduced ACL Graft Rupture Rates at a Minimum Follow-up of 2 Years: A Prospective Comparative Study of 502 Patients

Nobuaki Miyaji (Guest of Yuichi Hoshino)

Lou DeFrate

(50) The Impact of Anterolateral Capsule Injury on the Rotational Laxity in the ACL Injured-Knees: Preoperative and 1 Year Postoperative evaluation

2016-2018 Traveling Fellows Report 12:13 - 12:33 **DISCUSSION**

WEDNESDAY, JANUARY 31, 2018

BREAKFAST

MODERATOR - Jacques Menetry ACL ASSESSMENT

7:30 - 7:35 Thomas Branch (51) Unique Characteristics of the Physical Examination that can Identify Injury to the Anterolateral Corner and Posterior Oblique Ligament in ACL Intact and ACL Deficient Knees

Christian Guier (52) Biomechanical Characteristic Variability Between Knees as a Basis for Treatment Selection in ACL Deficient Knees- Not a Novel Concept?

Rhidian Thomas (53) A New Clinical Test to Confirm the Presence of a Medial Meniscal Tear - Thomas-Feagin* Test

7:48 - 8:03 DISCUSSION

> **MODERATOR - Martha Murray ACL PREVENTION**

8.04 - 8.09 **Timothy Hewett** (54) Effects of Passive and Dynamic and Knee Stability and Increased ACL Injury Risk in Athletes

8:10 - 8:15 (55) Prevention of Knee Injuries: The Dutch Approach

8:16 -8:21 Harukazu Tohyama (56) Effects of Muscle Forces on Knee Biomechanics During Landing Tasks

8:22 - 8:37 DISCUSSION

> **MODERATOR - Kate Webster** REHABII ITATION

8:38 - 8:43 Cale Jacobs (57) Earlier Timing of Anterior Cruciate Ligament Reconstruction Resulted in Greater Quadriceps Strength and Self-Reported Function

Christopher Vertullo (Guest of David Parker) (58) Hamstring Tendon Harvest Results in Heterogeneous Musculotendinous Regeneration That Significantly Reduces Muscular Support for Side-Stepping at Two Years Post Anterior Cruciate Ligament Reconstruction (ACLR)

8:50 - 8:55 (59) Adductor Canal Nerve versus Femoral Nerve Blockade for Pain Control and Quadriceps Function Following ACL Reconstruction: A Prospective Randomized Trial

Brian Noehren (Guest of Mark Clatworthy) (60) Myostatin Regulation in the Quadriceps Muscle Following an ACL Tear

9:02 - 9:22 DISCUSSION

9:23 - 9:53 BREAK

MODERATOR - Willem vd Merwe TIBIAL SLOPE

9:54 - 10:01 Mark Clatworthy (61) The Effect of Lateral Tibial Posterior Slope on ACL Graft Failure Risk Depending on ACLR Technique Related Graft Isometry

Fimar Herbst (Guest of Andreas Imhoff) (62) In-Vivo Internal Tibial Rotation and it's Association with Tibial Articulating Surface Morphology

10:10 - 10:17 Tim Lording (63) Proximal Tibial Bony and Meniscal Slopes are Higher in ACL Injured Subjects Than Controls: A Comparative MRI Study

10:18 - 10:38 DISCUSSION

MODERATOR - Mark Clatworthy INDUSTRY SESSION

10:39 - 10:54 Mike McBrayer DJO Orthpaedics - Automation in the Physicians Clinic

Coen Widjicks Arthrex - Scientific Evidence and Clinical Outcomes of Current ACL Repair and Reconstruction Techniques

11:11 - 11:26 Steve Oordt BREG - Breg Product and Solutions Update for Post-Operative ACL Rehab and Care

11-27 - 11-42 Jared Antony ConMed - Innovative ways to approach new product design" 11:43 - 11:58 Mike Decker

Topical Gear -The GAP in Functional Movement

11:59 - 12:14 FH Orthopedics TBD 12:15 - 12:30

Smith & Nephew - All Around the Knee: The latest techniques and innovations for optimizing ACL Reconstruction and addressing the peripheral structure

12:31 - 13:31 | LUNCH

MODERATOR - David Parker LATERAL BONY MORPHOLOGY

13:32 - 13:39 Volker Musahl (64) An Increased Distal Femur Cam Ratio is a Risk Factor for Anterior Cruciate Ligament Injury

13:40 - 13:47 Robert Smiglieski (65) Determining Complementary Surgical Treatment in Case of Posterior Tibial Fractures Coinciding with ACL Injuries Base on the Classification System Proposed by the Authors

13:48 - 14:03 DISCUSSION

OSTEOTOMY

14:04 - 14:09 Andreas Imhoff (66) Three-Dimensional Alignment Correction in Patients with Cruciate Ligament Deficiency and Moderate Medial Compartmental Osteoarthritis

DISCUSSION 14:10 - 14:15

> **MODERATOR - Robert Smiglieski** IMAGING

Michael Hirschmann (67) A Biological Imaging Window into the knee of Patients with ACL Graft Insufficiency: A Correlation of MRI and SPECT/CT Findings

14:22 - 14:27 Burt Klos (68) High Incidence of ALL-Segond Avulsion in Ultrasound Imaging

14:28 - 14:33 David A. Parker (69) Optimised Structural Assessment of ACL Reconstruction: Development, Validation and Clinical Experience of a Novel MRI

Kazunori Yasuda (70) Is the Grafted Hamstring Tendon Shifted Anteriorly in the Femoral Tunnel at the Postremodeling Phase After Anterior Cruciate Ligament Reconstruction?: A Clinical MRI Study

14:40 - 15:00 DISCUSSION 15:01 - 15:31 BREAK

> **MODERATOR - Volker Musahl** MENISCUS

15:32 - 15:39 Mirco Herbort (Guest of Christian Hoser) (71) The Role of the Integrity of the Posterolateral Meniscus Root in Restraining Knee Laxity in the ACL-Deficient Knee

(72) The Impact of the Meniscus Injury on the Rotational Laxity in the Anterior Cruciate Ligament Injured and Reconstructed Knees Quantitatively Evaluated by the Electromagnetic Measurement

Hideyuki Koga (73) Contribution of Meniscus Repair to Pivot Shift During ACL Reconstruction: Objective Evaluation Using Triaxial Accelerometer

Romain Seil (74) Factors Associated with Ramp Lesions in ACL Injured Patients

Jacques Menetrey (75) Subtle and Isolated Injury of the Posterolateral Corner of the Knee Clinical Presentation and Proposal of Treatment

DISCUSSION

MODERATOR - Romain Seil PEDIATRIC 16:35 - 16:40

(76) ACL Revision Rate in Children and Adolescents 16:41 - 16:46 Justin Roe

Magnus Forssblad

(77) Transphyseal ACLR in the Skeletally Immature -Outcome in 148 Tanner 1-3 children

16:47 - 16:52 Rainer Siebold (78) SB versus AM/PM-DB ACLR in Kids and Adolescents

16:53 - 17:08 DISCUSSION

JOHN FEAGIN LECTURER Introduction - Mark Clatworthy

17:09 - 18:09 Performing Under Pressure Ceri Evans **THURSDAY, FEBRUARY 1, 2018**

BREAKFAST

MODERATOR - Mary Lloyd Ireland RETURN TO PLAY

7:00-7:05 Myles Coolican (79) The Development and Preliminary Evaluation of a Return to Sport Assessment after ACL Reconstruction

Jo Stephen (Traveling Scientist) (80) Return To Running Following ACL Reconstruction-Should We Have Better Criteria?

7:12 - 7:17 (81) Non-invasive Assessment of Healing Following ACL Surgery

7-18 - 7-38 DISCUSSION

> **MODERATOR - Julian Feller** CENTRAL CONTROL

7:39 - 7:44 Mary L. Ireland (82) Fear of Re-injury Coincides with Inferior Quadriceps Strength and Function and Patient-Reported Outcomes Six Months After ACL Reconstruction

Chris Kaeding

(83) Probing the Therapeutic of Non-Invasive Brain Stimulation for Long -Term Functional and Cortico Spinal Deficit Following ACL Rupture and Reconstruction

7:51 - 7:56 (84) Fears of Re-Injury and the Perceived Importance of Exercise: A Longitudinal Analysis of Psychological Factors Related to Participation in Physical Activities After ACL Reconstructions

DISCUSSION

9:26 - 10:00

RTP COMPLICATED SURGERY 8:18 - 8:25 Kate Webster

(85) Low Rates of Return to Preinjury Sport After Bilateral Anterior Cruciate Ligament Reconstruction **Andy Williams**

(86) Return to Sport After Combined Ligament Injuries in Flite Athletes

8:34 - 8:54 DISCUSSION

> MODERATOR - Willem vd Merwe DEBATE ON RTP

8:55 - 9:25 When Can We Tell Athletes They Can Return

MODERATOR - Tim Spalding WHICH GRAFT SHOULD WE USE IN YOUNG PATIENTS -WHAT DO THE REGISTRIES TELL US

10:01 - 10:06 A NZ ACL Registry Study Mark Clatworthy 10.07 - 10.12 Sweden Magnus Forssblad 10:13 - 10:18 sos Mark Ferguson 10:19 - 10:24 Martin Lind Denmark 10:25 - 10:30 Kaiser Permante Gregory Maletis

(Guest of Mark Clatworthy)

10:30 - 10:51 DISCUSSION

PRESIDENTIAL GUEST LECTURE

10:52 - 11:07 **Gregory Maletis** (87) Demonstrating the Value of an ACL Registry

DISCUSSION 11:08 - 11:18

11:19 - 11:28 Report of Annual Survey Data Seth Sherman

11:29 - 12:29 SECOND BUSINESS MEETING - Mark Clatworthy

Beginning 17:45 Transportation to Mt. Soho Restaurant

18:00 - 19:00 Reception - Mt. Soho Restaurant

Return transportation to the Millbrook 22:00

19:00 - 22:00 Gala Banquet

